brainchip

APPENDIX 4D HALF-YEAR FINANCIAL REPORT

Information given to ASX under listing rule 4.2A

1. Reporting period and Functional Currency

Current reporting period:	30 June 2019
Previous corresponding reporting period:	30 June 2018
Functional Currency:	US dollars

2. Results for announcement to the market

	30 June 2019 US$	**30 June 2018 US$**	**% change**
Revenues from continuing operations	66,635	505,001	(87%)
Operating loss	(4,488,060)	(8,882,424)	49%
Loss for the period attributable to members	(4,493,568)	(8,770,180)	49%

Dividends
No dividends were paid or declared during the year ended 30 June 2019 (2018: Nil).

Loss per share	**US cents per share**	**US cents per share**
Basic loss per share	(0.42)	(0.90)
Diluted loss per share	(0.42)	(0.90)

Net tangible asset	**30 June 2019 US cents per share**	**31 Dec 2018 US cents per share**
Net tangible asset per share	0.32	0.68

Dividends or dividend distribution plan
No dividends were paid or declared during the half-year ended 30 June 2019 (2018: Nil). The Company does not operate a distribution reinvestment plan.

Additional Information

Additional Appendix 4D disclosure requirements can be found in the attached Financial Report for the half-year ended 30 June 2019.

This report is based on the consolidated financial statements and notes which have been reviewed by Ernst & Young.

BrainChip Holdings Ltd

ACN 151 159 812

Financial Report
For the Half-Year ended
30 June 2019

Corporate Directory

Board of Directors

Stephe Wilks	Non-Executive Director and Chair
Louis DiNardo	Executive Director and Chief Executive Officer
Steven Liebeskind	Non-Executive Director, Audit & Governance Committee Chair
Emmanuel T. Hernandez	Non-Executive Director, Remuneration & Nomination Committee Chair
Adam Osseiran	Non-Executive Director

Company Secretary

Kim Clark

Registered Office

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Postal Address

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Website

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Auditors

Ernst & Young

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Telephone: +61 8 9429 2222 Facsimile: +61 8 9429 2436

Share Registry

Computershare Investor Services Pty Ltd

Yarra Falls, 452 Johnson Street, Abbotsford VIC 3067

Telephone: 1300 850 505 International: +61 3 9415 4000

Facsimile**:** +61 8 9323 2033 Online: www.investorcentre.com

Securities Exchange

Australian Securities Exchange Limited

Exchange Centre, 20 Bridge St, Sydney NSW 2000

Code: BRN

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Directors' Report

The Directors submit their report of the consolidated entity, being BrainChip Holdings Ltd ("BrainChip Holdings" or "Company") and its controlled entities ("Group"), for the half-year ended 30 June 2019.

DIRECTORS

The names and details of the Company's Directors in office during the financial period and until the date of this report are as follows:

Stephe Wilks	Non-Executive Director and Chair (appointed 11 February 2019)
Louis DiNardo	Executive Director
Steve Liebeskind	Non-Executive Director
Emmanuel T. Hernandez	Non-Executive Director
Adam Osseiran	Non-Executive Director
Julie H. Stein	Non-Executive Director (resigned 1 April 2019)

PRINCIPAL ACTIVITIES

The principal activity of the Group is the development of software and hardware accelerated solutions for advanced artificial intelligence (AI) and machine learning applications with a primary focus on the development of its Akida Neuromorphic Processor Unit hardware product.

DIVIDENDS

No dividends have been paid or declared by the Company during the half-year or up to the date of this report.

SIGNIFICANT CHANGES IN THE STATE OF AFFAIRS

In February 2019, the Company implemented a restructuring and cost reduction plan. The estimated reduction is 10% to 15% of total planned spending. The plan included elimination of expenses associated with BrainChip Studio end-user sales, including a reduction in workforce and a focus on BrainChip Studio Original Equipment Manufacturer (OEM) engagements. In addition, certain key management personnel agreed to accept a temporary reduction in their salaries.

On 26 June 2019, the Company announced the execution of a definitive agreement with Socionext America Inc ("SNA") for product development and manufacture of the Akida™ Neuromorphic System-on-Chip ("NSoC").

REVIEW OF OPERATIONS

The financial results of the Group are presented in US dollars, unless otherwise referenced.

Operating Results

The Group made a net loss after income tax for the half-year ended 30 June 2019 of $4,493,568 (30 June 2018: $8,770,180).

Revenues for the half-year ended 30 June 2019 of $66,635 decreased 87% over the $505,001 in the same period a year ago. This decrease was largely attributable to revenues recognised in the prior period from the GPI agreement.

Total expenses for the half-year ended 30 June 2019 of $4,554,695 decreased 51% from $9,387,425 incurred in the half-year ended 30 June 2018. This decrease was attributable to:

1) Research & development (R&D) expenses of $1,489,915 for the current period increased 23%, or $282,145 from 30 June 2018. R&D costs in the current period include an increase in headcount and increased third party fees with the first payment under the SNA contract, and the outsourcing of manpower. The prior period included the write off and amortisation of capitalised license and patents, and intangible assets are no longer capitalised.

2) Sales & Marketing (S&M) expenses of $361,632 for the current period decreased 49%, or $348,257 compared to the comparative period. The decrease in S&M expenses reflects management's decision to reduce S&M headcount and related expenditures until a more advanced stage of the development of Akida;

3) General & Administrative (G&A) expenses of $2,356,450 for the current period decreased 5%, or $138,737 from the same period a year ago which is a result of:

   a) Director remuneration in the current period was higher due to higher rates effective 1 June 2019 as approved at the 2018 AGM. This was offset by the resignation of Ms Julie Stein without replacement. Additionally, key management employee costs increased due to the employment of the Chief Operating Officer, offset by a voluntary reduction in salaries of the Chief Executive Officer, Chief Technical Officer and Chief Development Officer of BrainChip Inc.;

   b) decreased travel expenses related to sales, business development and investor relations activities;

   c) an incremental $38,725 as a result of the adoption of AASB 16 Leases;

   and

4) Share based payment expense of $346,698 for the current period decreased 93%, or $4,627,881 from the same period a year ago. Share based payments expense represents the value of options, RSUs and performance rights issued to directors, employees and consultants that have been earned during the reporting period, offset by the effect of cancelled and forfeited equity instruments. The current period includes the net credit resulting from the forfeiture of options related to the resignation and termination of S&M employees and contractors, and $108,026 of share-based payment expense related to the derivative liability portion of the Convertible Note.

On 26 June 2019, the Company signed an unsecured Convertible Security Agreement with CST Capital Pty Ltd ("CST") as trustee of the CST Investments Fund, under which the Company has issued convertible securities with a face value of US$2,850,000 for a term of 12 months and an interest rate of 10%pa.

At the end of the half-year the Group had consolidated net assets of $5,239,205 (31 December 2018: $8,879,309), including cash and cash equivalents of $5,519,777 (31 December 2018: $7,543,326).

Overall cash spent in operating activities increased by $722,132, or 20%, to $4,241,084 from $3,518,952 as noted in the Consolidated Statement of Cash Flows reflecting increased headcount and the first instalment paid under the SNA contract of $100,000. Cash from Financing Activities reflects the $2,565,000 received upon the issue of the Convertible Note.

SECURITIES ON ISSUE

The Company has the following securities on issue as of 30 June 2019:

Ordinary shares	1,081,444,798
Options over ordinary shares	195,100,000
Restricted stock units	4,950,000

SIGNIFICANT EVENTS AFTER THE BALANCE DATE

On 26 June 2019 the Company announced an accelerated non-renounceable entitlement to the market. On 8 July 2019 the Company completed the institutional component of the offer raising A$6.7 million, before costs, from the issue of 112,206,282 fully paid ordinary shares. The Company raised a further A$3,992,840 on 16 July 2019 from the issue of 66,547,327 fully paid ordinary shares upon the completion of a 1 for 4 accelerated non-renounceable entitlement offer to retail investors.

On 29 July 2019, the Company paid $700,000 to SNA in accordance with the terms of the definitive agreement for product development and manufacture of the Akida™ Neuromorphic System-on-Chip ("NSoC").

No other matter or circumstance has arisen since the end of the half-year which significantly affected or may significantly affect the operations of the Group, the results of those operations, or the state of affairs of the Group in subsequent financial periods.

AUDITOR INDEPENDENCE

The Directors received the Independence Declaration, as set out on page 4, from Ernst & Young.

Signed in accordance with a resolution of the Directors.

Louis DiNardo

Executive Director and Chief Executive Officer
California, USA, August 26, 2019

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Auditor's Independence Declaration to the Directors of BrainChip Holdings Ltd

As lead auditor for the review of the half-year financial report of BrainChip Holdings Ltd for the half-year ended 30 June 2019, I declare to the best of my knowledge and belief, there have been:

a. no contraventions of the auditor independence requirements of the *Corporations Act 2001* in relation to the review; and

b. no contraventions of any applicable code of professional conduct in relation to the review.

This declaration is in respect of BrainChip Holdings Ltd and the entities it controlled during the financial period.

Ernst & Young

Ernst & Young

Teale

Philip Teale
Partner
27 August 2019

Consolidated Statement of Profit or Loss and Other Comprehensive Income
For the half-year ended 30 June 2019

	Note	30 June 2019 US$	30 June 2018 US$
Continuing operations			
Revenue from contracts with customers	3	66,635	505,001
Research & development expenses	4(a)	(1,489,915)	(1,207,770)
Selling & marketing expenses	4(b)	(361,632)	(709,889)
General & Administrative expenses	4(c)	(2,356,450)	(2,495,187)
Share based payment expense	11(a)	(346,698)	(4,974,579)
Operating loss		(4,488,060)	(8,882,424)
Finance income	5(a)	20,919	112,319
Finance expense	5(b)	(26,427)	(75)
Loss from continuing operations before income tax		(4,493,568)	(8,770,180)
Income tax expense		-	-
Net loss for the period		(4,493,568)	(8,770,180)
Other comprehensive income / (loss)			
Other comprehensive income not to be reclassified to profit or loss in subsequent periods (net of tax):			
Remeasurement gains (losses) on defined benefit plans		(1,170)	34,094
Items that may be reclassified subsequently to profit or loss (net of tax):			
Exchange differences on translation of foreign operations		(10,620)	(37,035)
Other comprehensive loss for the period, net of tax		(11,790)	(2,941)
Total comprehensive loss for the period, net of tax		(4,505,358)	(8,773,121)
		US cents per share	**US cents per share**
Loss per share attributable to ordinary equity holders of the Company			
Basic and diluted loss per share	6	(0.42)	(0.90)

The above consolidated statement of comprehensive income should be read in conjunction with the accompanying notes.

Consolidated Statement of Financial Position
As at 30 June 2019

	Note	30 June 2019 US$	31 December 2018 US$
CURRENT ASSETS			
Cash and cash equivalents	7	5,519,777	7,543,326
Trade and other receivables	9	544,745	461,129
Inventories		16,605	20,864
Other assets		169,614	139,789
Total current assets		6,250,741	8,165,108
NON-CURRENT ASSETS			
Plant and equipment		202,789	226,456
Intangible assets	8	1,790,863	1,735,122
Right-of-use assets	2(iii)	164,658	-
Other assets		38,755	38,950
Total non-current assets		2,197,065	2,000,528
TOTAL ASSETS		8,447,806	10,165,636
CURRENT LIABILITIES			
Trade and other payables	9	493,133	723,541
Employee benefits liabilities		213,386	228,962
Lease liabilities	2(iii)	166,099	-
Financial liabilities	9	1,989,430	-
Total current liabilities		2,862,048	952,503
NON-CURRENT LIABILITIES			
Financial liabilities	9	220,625	226,873
Defined benefit plan	9	125,928	106,951
Total non-current liabilities		346,553	333,824
TOTAL LIABILITIES		3,208,601	1,286,327
NET ASSETS		5,239,205	8,879,309
EQUITY			
Contributed equity	10(a)	55,143,789	55,143,789
Share based payments reserve		17,328,781	16,463,527
Foreign currency translation reserve		69,906	80,526
Other equity reserve		247,872	247,872
Accumulated losses		(67,551,143)	(63,056,405)
TOTAL EQUITY		5,239,205	8,879,309

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

Consolidated Statement of Cash Flows
For the half-year ended 30 June 2019

	Note	30 June 2019 US$	30 June 2018 US$
CASH FLOWS USED IN OPERATING ACTIVITIES			
Receipts from customers		177,105	523,483
Grants and R&D credits received from third parties		-	237,771
Payments to suppliers and employees		(4,444,476)	(4,335,074)
Interest received		31,153	54,943
Interest paid		(4,866)	(75)
Net cash flows used in operating activities		(4,241,084)	(3,518,952)
CASH FLOWS USED IN INVESTING ACTIVITIES			
Payments for property, plant and equipment		(19,105)	(22,905)
Payments for purchase of patents and licenses		(203,553)	(21,055)
Payments for capitalised research and development		-	(566,461)
Net cash flows used in investing activities		(222,658)	(610,421)
CASH FLOWS FROM FINANCING ACTIVITIES			
Payment of share issue costs		-	(6,255)
Proceeds from the issue of convertible securities		2,565,000	-
Payment of convertible securities costs		(11,862)	-
Payment of lease liabilities		(113,164)	-
Net cash flows generated from/(used in) financing activities		2,439,974	(6,255)
Net decrease in cash and cash equivalents		(2,023,768)	(4,135,628)
Net foreign exchange differences		219	(21,700)
Cash at the beginning of the financial period		7,543,326	16,049,330
Cash and cash equivalents at the end of the period	7	5,519,777	11,892,002

The above consolidated statement of cash flows should be read in conjunction with the accompanying notes.

Consolidated Statement of Changes in Equity
For the half-year ended 30 June 2019

	Contributed equity	Share based payment reserve	Other reserves	Foreign currency reserve	Accumulated losses	Total equity
	US$	US$	US$	US$	US$	US$
At 1 January 2018	53,570,901	10,733,454	247,872	81,556	(46,567,313)	18,066,470
Loss for the year	-	-	-	-	(8,770,180)	(8,770,180)
Other comprehensive loss	-	-	-	(37,035)	34,094	(2,941)
Total comprehensive loss for the period	-	-	-	(37,035)	(8,736,086)	(8,773,121)
Transactions with owners in their capacity as owners						
Issue of share capital	1,563,870	-	-	-	-	1,563,870
Share issue costs	(6,255)	-	-	-	-	(6,255)
Share-based payment	-	3,410,709	-	-	-	3,410,709
At 30 June 2018	55,128,516	14,144,163	247,872	44,521	(55,303,399)	14,261,673

	Contributed equity	Share based payment reserve	Other reserves	Foreign currency reserve	Accumulated losses	Total equity
	US$	US$	US$	US$	US$	US$
At 1 January 2019	55,143,789	16,463,527	247,872	80,526	(63,056,405)	8,879,309
Loss for the year	-	-	-	-	(4,493,568)	(4,493,568)
Other comprehensive loss	-	-	-	(10,620)	(1,170)	(11,790)
Total comprehensive loss for the period	-	-	-	(10,620)	(4,494,738)	(4,505,358)
Transactions with owners in their capacity as owners						
Share-based payment	-	865,254	-	-	-	865,254
At 30 June 2019	55,143,789	17,328,781	247,872	69,906	(67,551,143)	5,239,205

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

1. CORPORATE INFORMATION

The interim condensed consolidated financial report of BrainChip Holdings Ltd ("Company") and its controlled entities ("Consolidated Entity" or "Group") for the half-year ended 30 June 2019 was authorised for issue in accordance with a resolution of the Directors on 28 August 2019.

BrainChip Holdings is a for-profit Company limited by shares, incorporated and domiciled in Australia, and whose shares are publicly traded on the Australian Securities Exchange.

The address of the registered office is Level 12, 225 George Street, Sydney, NSW 2000, Australia.

The nature of the operations and principal activities of the Group are described in the Directors' Report.

2. SUMMARY OF SIGNIFICANT ACCOUNTING POLICIES

Basis of preparation

The interim condensed consolidated financial statement has been prepared in accordance with AASB 134 Interim Financial Reporting and the Corporations Act 2001.

The interim condensed consolidated financial statement does not include all the information and disclosures required in the annual financial statements, and should be read in conjunction with the Group's annual consolidated financial statements as at 31 December 2018, and considered together with any public announcements made by the Company during the half-year ended 30 June 2019 in accordance with the continuous disclosure obligations of the ASX Listing Rules.

New standards, interpretation and amendments adopted by the Group

The accounting policies adopted in the preparation of the interim condensed consolidated financial statements are consistent with those followed in the preparation of the Group's annual consolidated financial statements for the year ended 31 December 2018, except for the adoption of new standards effective as of 1 January 2019. The Group has not early adopted any other standard, interpretation or amendment that has been issued but is not yet effective.

The Group applies, for the first time, AASB 16 *Leases* that requires restatement of previous financial statements. As required by AASB 134, the nature and effect of these changes are disclosed below.

Several other amendments and interpretations apply for the first time in 2019, but do not have an impact on the interim condensed consolidated financial statements of the Group.

AASB 16 Leases

AASB 16 *Leases* supersedes *AASB 17 Leases, Interpretation 4 Determining whether an Arrangement contains a Lease*, *Interpretation 115 Operating Leases Incentives,* and *Interpretation 127 Evaluating the Substance of Transactions Involving the Legal Form of a Lease*. AASB16 sets out the principles for the recognition, measurement, presentation and disclosure of leases and requires lessees to account for most leases under a single on-balance sheet model.

The Group adopted AASB 16 using the modified retrospective method of adoption with the date of initial application of 1 January 2019. Under this method, the standard is applied retrospectively with the cumulative effect of initially applying the standard recognised at the date of initial application. The Group elected to use the transition practical expedients allowing a) the standard to be applied only to contracts that were previously identified as leases applying AASB 117 and Interpretation 4 at the date of initial application, and b) the measuring the right-of-use asset on transition as being equal to the amount of the lease liability initially recognised on transition.

The Group also elected to use the recognition exemptions for lease contracts that, at the commencement date, have a lease term of 12 months or less and do not contain a purchase option ('short-term leases'), and lease contracts for which the underlying asset is of low value ('low-value assets').

The effect of adoption of AASB 16 is as follows:

The impact on the condensed interim consolidated statement of financial position as at 1 January 2019 is an increase in right-of-use assets of $114,407 and an increase in the lease liability of $114,407.

2. SUMMARY OF SIGNIFICANT ACCOUNTING POLICIES (continued)

The lease liabilities as of 1 January 2019 can be reconciled to the operating lease commitments as of 31 December 2018 as follows:

	US$
Operating lease commitments as at 31 December 2018	177,388
Weighted average incremental borrowing rate at 1 January 2019	8%
Discounted operating lease commitments at 1 January 2019	(3,322)
Less:	
Commitments relating to short -term leases	(40,733)
Other miscellaneous adjustments	(18,926)
Lease liabilities as at 1 January 2019	**114,407**

(i) Nature and effect of adoption of AASB 16

The Group has lease contracts for various office premises. Before the adoption of AASB 16, the Group classified each of its leases (as lessee) at the inception date as an operating lease (as it held no finance leases). In an operating lease, the leased property was not capitalised, and the lease payments were recognised as an expense in the condensed interim consolidated statement of comprehensive loss on a straight-line basis over the lease term. Prepaid or accrued rent was recognised under prepaid expenses and deposits and accounts payable and accrued liabilities, respectively.

Upon adoption of AASB 16, the Group applied a single recognition and measurement approach for all leases where it is the lessee, except for short-term leases and leases of low-value assets. The Group recognised lease liabilities to make lease payments and right-of-use assets representing the right to use the underlying assets. In accordance with the modified retrospective method of adoption, the Group applied AASB 16 at the date of initial application by measuring the right-of-use assets based on the amount equal to the lease liabilities. Lease liabilities were recognised based on the present value of the remaining lease payments, discounted using the incremental borrowing rate at the date of initial application.

(ii) Summary of new accounting policy

Right-of-use assets

The Group recognises right-of-use assets at the commencement date of the lease (i.e., the date the underlying asset is available for use). Right-of-use assets are measured at cost, less any accumulated depreciation and impairment losses, and adjusted for any remeasurement of lease liabilities. The cost of right-of-use assets includes the amount of lease liabilities recognised, initial direct costs incurred, and lease payments made at or before the commencement date less any lease incentives received. Unless the Group is reasonably certain to obtain ownership of the leased asset at the end of the lease term, the recognised right-of-use assets are depreciated on a straight-line basis over the shorter of its estimated useful life and the lease term. Right-of-use assets are subject to impairment.

Lease liabilities

At the commencement date of the lease, the Group recognises lease liabilities measured at the present value of lease payments to be made over the lease term. The lease payments include fixed payments (including in-substance fixed payments) less any lease incentives receivable, variable lease payments that depend on an index or a rate, and amounts expected to be paid under residual value guarantees. The lease payments also include the exercise price of a purchase option reasonably certain to be exercised by the Group and payments of penalties for terminating a lease, if the lease term reflects the Group exercising the option to terminate. The variable lease payments that do not depend on an index or a rate are recognised as expense in the period on which the event or condition that triggers the payment occurs.

In calculating the present value of lease payments, the Group uses the incremental borrowing rate at the lease commencement date if the interest rate implicit in the lease is not readily determinable. After the commencement date, the amount of lease liabilities is increased to reflect the accretion of interest and reduced for the lease payments made. In addition, the carrying amount of lease liabilities is remeasured if there is a modification, a change in the lease term, a change in the in-substance fixed lease payments or a change in the assessment to purchase the underlying asset.

2. SUMMARY OF SIGNIFICANT ACCOUNTING POLICIES (continued)

Short-term leases and leases of low-value assets

The Group applies the short-term lease recognition exemption to its short-term office premises leases i.e., those leases that have a lease term of 12 months or less from the commencement date and do not contain a purchase option). It also applies the lease of low-value assets recognition exemption to leases of office equipment that are considered of low value (i.e., below $5,000). Lease payments on short-term leases and leases of low-value assets are recognised as expense on a straight-line basis over the lease term.

Significant judgement in determining the lease term of contracts with renewal options

The Group determines the lease term as the non-cancellable term of the lease, together with any periods covered by an option to extend the lease if it is reasonably certain to be exercised, or any periods covered by an option to terminate the lease, if it is reasonably certain not to be exercised. The Group has the option, under some of its leases to lease the assets for additional terms. The Group applies judgement in evaluating whether it is reasonably certain to exercise the option to renew. That is, it considers all relevant factors that create an economic incentive for it to exercise the renewal. After the commencement date, the Group reassesses the lease term if there is a significant event or change in circumstances that is within its control and affects its ability to exercise (or not to exercise) the option to renew (e.g., a change in business strategy).

(iii) Amounts recognised in the statement of financial position and profit and loss

Set out below, are the carrying amounts of the Group's right-of-use assets and lease liabilities and the movements during the period:

	Right-of-use asset US$	Lease Liability US$
As at 31 December 2018	-	-
Initial adoption of AASB 16	114,407	114,407
Additions	165,574	165,574
Depreciation expense	(114,605)	-
Interest expense	-	4,866
Payments	-	(118,029)
Foreign exchange remeasurement	(718)	(719)
As at 30 June 2019	164,658	166,099

Set out below, are the amounts recognised in profit and loss for the six months ended 30 June 2019:

	30 June 2019 US$
Depreciation expense of right-of-use asset	114,605
Interest expense on lease liabilities	4,866
Rent expense of short-term leases	34,914
Total amount recognised in profit or loss	154,385

Going concern

This half-year financial report has been prepared on the going concern basis, which contemplates the continuity of normal business activity and the realisation of assets and settlement of liabilities in the normal course of business.

During the period ended 30 June 2019, the Group incurred a net loss after tax of $4,493,568 and a cash outflow used in operating activities of $4,241,084.

At 30 June 2019, the Group had cash and cash equivalents of $5,519,777, net assets of $5,239,205 and a net working capital of $3,388,693.

The Company has prepared a detailed cash budget showing the need to generate additional commercial agreements or receive additional funds in order to finance the Group for the next twelve months.

This creates a material uncertainty that may cast doubt as to whether the Group will continue as a going concern and, therefore, whether it will settle its liabilities and commitments in the normal course of business.

2. SUMMARY OF SIGNIFICANT ACCOUNTING POLICIES (continued)

The Directors have considered the funding and operational status of the business in arriving at their assessment of going concern and believe that the going concern basis of preparation is appropriate, based upon the following:

- The ability to further vary cash flows depending upon the achievement of new commercial agreements; and
- The ability of the Group to obtain funding through various sources, including debt and equity issues which are currently being investigated by management.

The Directors have reasonable expectations that they will be able to generate additional commercial agreements or raise the funds needed for the Group to continue to execute the business plan of the Group in the medium term. However, cashflows can be adjusted by controlling headcount and R&D and marketing expenses to ensure that the Company can pay its debts as and when they fall due until such funding is secured, or new commercial agreements are in place.

Should the Group not achieve the matters set out above, there is uncertainty whether the Group would continue as a going concern and therefore whether it would realise its assets and extinguish its liabilities in the normal course of business and at the amounts stated in the financial report. The financial report does not include adjustments relating to the recoverability or classification of the recorded asset amounts or to the amounts or classification of liabilities that might be necessary should the Group not be able to continue as a going concern.

3. REVENUE FROM CONTRACTS WITH CUSTOMERS

	30 June 2019 US$	30 June 2018 US$
(a) Types of goods or service		
Product revenue	64,375	19,738
License revenue	2,260	242,225
Development service revenue	-	243,038
Total revenue from contracts with customers	66,635	505,001
(b) Timing of revenue recognition		
Services transferred over time	-	252,690
Sale of product and license transferred at a point in time	66,635	252,311
Total revenue	66,635	505,001

4. EXPENSES

		30 June 2019 US$	30 June 2018 US$
(a)	**Research & development expenses**		
	Employee expenses	1,408,226	653,449
	Grants received	(210,693)	(144,387)
	Contractor fees	157,639	-
	Amortisation of intangible assets	40,947	544,793
	Other expenses	93,796	153,915
	Total research & development expenses	1,489,915	1,207,770
(b)	**Selling & marketing expenses:**		
	Employee expenses	165,261	367,698
	Contractor fees	121,128	180,129
	Other expenses	75,243	162,062
	Total selling & marketing expenses	361,632	709,889
(c)	**General & Administrative expenses:**		
	Director fees and key management personnel employee expenses	948,890	695,820
	Employee expenses	239,896	201,295
	Legal and professional fees	540,746	897,635
	Travel and accommodation expenses	142,200	221,280
	Depreciation of plant & equipment	42,251	11,648
	Amortisation of right of use assets	114,605	-
	Office rent	37,072	112,952
	Other	290,790	354,557
	Total general & administrative expenses	2,356,450	2,495,187

5. FINANCE INCOME AND EXPENSES

		30 June 2019 US$	30 June 2018 US$
(a)	**Finance income**		
	Interest received	20,919	53,181
	Foreign exchange gain	-	59,138
	Total finance income	20,919	112,319
(b)	**Finance expense**		
	Interest expense	4,866	75
	Foreign exchange loss	21,561	-
	Total finance expense	26,427	75

6. LOSS PER SHARE

	30 June 2019 US$	30 June 2018 US$
Net loss attributable to ordinary shareholders for basic and diluted earnings per share	(4,493,568)	(8,770,180)
	US cents per share	US cents per share
Basic and diluted loss per share	(0.42)	(0.90)
Weighted average number of ordinary shares for basic loss per share	1,064,973,804	970,903,693
Effect of the dilution of share options and performance rights [1] [2]	-	-
Weighted average number of ordinary shares adjusted for the effect of dilution	1,064,973,804	970,903,693

[1] At 30 June 2019, the Company had on issue 195,100,000 (30 June 2018: 201,050,000) share options that are excluded from the calculation of diluted loss per share for the current period because they were anti-dilutive.

[2] At 30 June 2019, the Company had no performance rights on issue (30 June 2018: 72,500,000) and 4,950,000 (30 June 2018: 2,950,000) restricted stock units that are excluded from the calculation of diluted loss per share for the current period because they were anti-dilutive.

7. CASH AND CASH EQUIVALENTS

	30 June 2019 US$	31 December 2018 US$
Cash at bank and in hand	5,519,777	7,543,326
Total	5,519,777	7,543,326

8. INTANGIBLE ASSETS

		30 June 2019 US$	31 December 2018 US$
	Patents and licenses (a)	885,405	829,664
	Goodwill	905,458	905,458
		1,790,863	1,735,122
(a)	At cost – patents and licenses with finite useful life	1,046,834	970,212
	Accumulated amortisation	(161,429)	(140,548)
		885,405	829,664

	6 Months to 30 June 2019 US$
Movement in patents and licenses:	
Opening balance	829,664
Additions	96,897
Amortisation	(40,947)
Foreign exchange movements	(209)
	885,405

As of 30 June 2019, the Group considered the relevant factors that contributed to the carrying value of Intangible assets and determined that there was none noted.

9. FINANCIAL ASSETS & LIABILITIES

Set out below is an overview of financial assets (other than cash and short term deposits) and financial liabilities held by the Group as at 30 June 2019 and 31 December 2018:

	30 June 2019 US$	31 December 2018 US$
Financial assets		
Trade and other receivables	544,745	461,129
Total financial assets	544,745	461,129
Current	544,745	461,129
Non-current	-	-
Total financial assets	544,745	461,129
Financial liabilities		
Trade and other payables	493,133	723,541
Financial liabilities		
- Advances from third parties	220,625	226,873
- Convertible Securities(1)	1,989,430	-
Other financial liabilities	125,928	106,951
Total financial liabilities	2,829,117	1,057,365
Current	2,482,563	723,541
Non-current	346,553	333,824
Total financial liabilities	2,829,116	1,0057,365

(1) Convertible Securities Agreement

On 26 June 2019, the Company entered into an unsecured Convertible Securities Agreement ("CSA") with CST Capital Pty Ltd ("CST") as trustee of the CST Investments Fund, under which the Company has issued convertible securities with a face value of US$2,850,000 ("Convertible Securities") to CST for a term of 12 months ("Maturity Date" of 26 June 2020) and an interest rate of 10%pa.

Key Terms and conditions

a) The CSA may be extended by 6 months on up to 3 separate occasions up to a total of 18 months by paying an extension fee equal to 3% of the face value of the then outstanding Convertible Securities on each occasion.
b) The Company was required to pay a drawdown fee on the issue of the Convertible Securities which was satisfied by the issue of 1,561,279 shares ("Drawdown Shares") to CST. The Drawdown Shares were fair valued at $83,167 and reported as a share-based payment (refer note 11(a))
c) In accordance with the terms of the CSA, CST was granted 21,868,976 options to purchase Shares ("CST Options"), with an exercise price of A$0.117 and expiry date of 26 June 2022. The Options were valued at $567,135 and reported as a share-based payment (refer note 11(a))
d) Whilst the Convertible Securities are unsecured, the Company was required to issue 30,000,000 shares to CST for no consideration ("Collateral Shares") at the time of issue of the Convertible Securities. CST may trade the Collateral Shares at any time but is not obliged to use them in full or partial satisfaction of the Company's obligations to issue Shares on conversion of the Convertible Securities or exercise of Options. The Collateral Shares are reported as Treasury Shares at 30 June 2019 (refer note 10(b)&(d)).
e) On the Maturity Date, or earlier date elected by the Company, the value of the Collateral Shares less any Shares used by CST in satisfaction of the Company's obligation to issue Shares on conversion of the Convertible Securities or exercise of the Options (Unused Collateral Shares), may be applied to reduce the outstanding amount.

10. CONTRIBUTED EQUITY

	30 June 2019 US$	31 December 2018 US$
(a) Ordinary Shares		
Issued and fully paid	55,143,789	55,143,789
	55,143,789	55,143,789

(b) Movements in ordinary shares on issue	30 June 2019 Number	30 June 2019 US$
At 1 January 2019	1,049,883,519	55,143,789
Issue of shares as per Convertible Note – Refer Note 9(1)(b)	1,561,279	-
Issue of shares as collateral in relation to the Convertible Note – Refer Note 9 (1)(d)	30,000,000	-
At 30 June 2019	1,081,444,798	55,143,789

(c) Terms and conditions of contributed equity

Holders of ordinary shares are entitled to receive dividends as declared from time to time and are entitled to one vote per share at shareholder meetings. In the event of winding up the Company the holders are entitled to participate in the proceeds from the sale of all surplus assets in proportion to the number of and amounts paid up on shares held.

(d) Treasury shares	30 June 2019 Number	31 December 2018 Number
Fully paid shares issued to CST Capital Pty Ltd	30,000,000	-
Fully paid shares issued to Trustee of Long Term Incentive Plan ("LTIP")	500,000	1,500,000
	30,500,000	1,500,000

Movements in Treasury shares	30 June 2019 Number
At 1 January	1,500,000
Shares issued to CST Capital Pty Ltd – refer Note 9(d)	30,000,000
Shares Issued by Trustee of the LTIP on conversion of Performance Rights - refer Note 10(e)(2)	(1,000,000)
At 30 June	30,500,000

(e) Performance Rights movements

	Opening balance 1 January 2019	Allocated	Converted	Cancelled	Closing balance 30 June 2019
Class B Performance Rights [(1)]	1,000,000	-	(1,000,000)		-
Class E Performance Rights [(2)]	7,500,000		-	(7,500,000)	-
	8,500,000	-	(1,000,000)	(7,500,000)	-

(1) 1,000,000 performance rights were converted to Treasury shares on 8 June 2019.
(2) Shareholders approved the cancellation of 7,500,000 performance rights previously issued to Mr DiNardo and the issue of 7,500,000 options, exercisable at A$0.075, expiring 30 May 2029.

10. CONTRIBUTED EQUITY (continued)

(f) Options on issue

Unissued ordinary shares of the Company under option at 30 June 2019 are as follows:

Type	Expiry Date	Exercise Price (US$)	Number of options
Options issued as part consideration as part of the Acquisition			
Unlisted	10/09/2019	0.112	6,250,000
Options issued to shareholders			
Unlisted	31/05/2020	0.171	20,000,000
Options issued as share-based payments			
Unlisted – refer Note 11(c)	Various	Various	190,718,976
Total			216,968,976

11. SHARE-BASED PAYMENTS

	30 June 2019 US$	30 June 2018 US$
(a) Recognised share-based payment expenses		
Equity instruments issued in accordance with BrainChip Long Term Incentive Plan	238,671	3,410,709
Ordinary shares issued to employees	-	1,563,870
Fair value of shares and options allocated to derivative liability	108,027	-
Total share-based payment expenses	346,698	4,974,579
Equity instruments issued in accordance with BrainChip Long Term Incentive Plan	238,671	3,410,709
Fair value of shares and options allocated to Convertible Securities – refer Note 9(1)(b) and (c)	650,302	-
Recognised in share-based payment reserve	888,973	3,410,709

(b) Performance Rights issued during the period as share-based payments

The fair value of the performance rights granted is estimated using the share price on the date of the grant.

The following table summarises the movement in Performance Rights issued to employees:

	Opening balance 1 January 2019	Issued during the year	Converted during the year	Cancelled during the year	Closing balance 30 June 2019
Class B Perf Rights	1,000,000	-	(1,000,000)	-	-
Class E Perf Rights [1]	7,500,000	-	-	(7,500,000)	-
	8,500,000	-	(1,000,000)	(7,500,000)	-

[1] 7,500,000 performance rights held by Mr DiNardo were cancelled and replaced with 7,500,000 options exercisable at A$0.075, expiring 30 May 2029, as approved by shareholders at the AGM on 30 May 2019.

11. SHARE-BASED PAYMENTS (continued)

(c) Share Options granted as share-based payments

The following table illustrates the number and weighted average exercise prices (WAEP) of, and movements in, share options issued as share based payments during the half-year:

	2019 Number	2019 WAEP (US$)	2018 Number	2018 WAEP (US$)
Outstanding at 1 January	136,700,000	0.165	164,300,000	0.161
Granted during the period	84,018,976	0.055	10,500,000	0.145
Forfeited during the period	18,625,000	0.176	-	-
Lapsed during the period	11,375,000	0.201	-	-
Expired during the period	-	-	-	-
Outstanding at the end of the period	190,718,976	0.115	174,800,000	0.160
Exercisable (vested and unrestricted) at the end of the period	63,262,500	0.151	52,050,000	0.180

The weighted average remaining contractual life for the share options outstanding at 30 June 2019 is 5.37 years (31 December 2018: 3.83 years).
The weighted average fair value of options granted during the year was $0.081 (31 December 2018: $0.108)
The range of exercise prices for options outstanding at the end of the half-year was $0.037 to $0.242.

The above options are exercisable after vesting and at any time on or before the expiry date.

(d) Options granted during the period as share-based payments

Unissued ordinary shares of the Company under option granted as share based payments during the period are as follows:

Type	Grant Type	Grant Date	Expiry Date	Exercise Price (US$)	Number of options
Unlisted	ESOP	11/03/2019	13/03/2029	0.047	20,000,000
Unlisted	ESOP	18/03/2019	18/03/2029	0.042	22,000,000
Unlisted	ESOP	30/05/2019	30/05/2029	0.069	7,500,000
Unlisted	ESOP	06/06/2019	06/06/2029	0.052	8,000,000
Unlisted	ESOP	13/06/2018	30/05/2029	0.037	4,650,000
Unlisted	Convertible Security Agreement – Refer Note 9	26/6/2019	26/6/2022	0.081	21,868,976
Total					84,018,976

(e) Options forfeited or lapsed during the period are as follows:

Type	Grant Date	Expiry Date	Exercise Price (US$)	Number forfeited	Number lapsed
Unlisted	5/03/2017	31/03/2022	0.209	10,000,000	10,000,000
Unlisted	31/05/2017	31/01/2025	0.138	2,000,000	-
Unlisted	31/05/2017	31/01/2026	0.138	2,000,000	-
Unlisted	28/11/2017	14/12/2022	0.141	3,750,000	1,250,000
Unlisted	5/03/2018	13/03/2028	0.171	375,000	125,000
Unlisted	17/07/2018	17/07/2028	0.108	500,000	-
Total				18,625,000	11,375,000

11. SHARE-BASED PAYMENTS (continued)

(f) Options pricing model

Options issued under LTIP

The fair value of the equity-settled share options granted under the LTIP s estimated as at the date of grant using a Black Scholes Option Pricing model applying the following inputs:

Number of options	Fair value at measurement date US$	Share price at Grant Date US$	Exercise price US$	Expected volatility	Risk-free interest rate (%)	Expected life of options in years
20,000,000	0.038	0.045	0.047	88.4	1.44	10.0
22,000,000	0.039	0.045	0.042	88.4	1.44	10.0
7,500,000	0.030	0.037	0.069	88.4	1.50	10.0
4,650,000	0.042	0.048	0.037	94.5	1.17	10.0
8,000,000	0.031	0.037	0.052	88.4	1.50	10.3

Options issued in accordance with Convertible Securities Agreement

The fair value of the equity-settled share options granted in accordance with the Convertible Securities Agreement is estimated as at the date of grant using a Black Scholes Option Pricing model applying the following inputs:

Number of options	Fair value at measurement date US$	Share price at Grant Date US$	Exercise price US$	Expected Volatility (%)	Risk-free interest rate (%)	Expected life of options in years
21,868,976	0.03	0.053	0.082	92.0	0.98	3

The expected life of the share options is based on historical data and is not necessarily indicative of exercise patterns that may occur. The expected volatility reflects the assumption that the historical volatility over a period similar to the life of the options is indicative of future trends, which may not necessarily be the actual outcome.

(g) Restricted Stock Units issued during the period as share-based payments

The Company issued 2,000,000 Restricted Stock Units to employees on 26 June 2019, at a fair value of US$0.048 per unit with a 24-month vesting period from the date of grant.

The fair value of the Restricted Stock Unit granted is estimated using the share price on the date of the grant.

12. OPERATING SEGMENTS

For management purposes, the Group is organised into one operating segment, being the technological development of designs that can be licensed to OEM (Original Equipment Manufacturer) Customers, End Users and System Integrators based on Artificial Neural Networks.

All the activities of the Group are interrelated, and each activity is dependent on the others. Accordingly, all significant operating disclosures are based upon analysis of the Group as one segment. The financial results from this segment are equivalent to the financial statements of the Group as a whole.

The Group currently derives revenue from BrainChip Inc., located in the USA, and BrainChip SAS, its France based subsidiary.

Geographically, the Group has the following revenue information based on the location of its customers and non-current assets from where its investing activities are managed.

	30 June 2019 US$	30 June 2018 US$
Revenue from external customers		
North America	10,000	453,124
Europe, Middle East & Asia (EMEA)	56,635	51,877
Revenue from continuing operations	66,635	505,001

Customers representing more than 10% of revenues in the current year amounted to $59,514 (2018: $497,676) comprising:

- license and software development revenues of $10,000 which was earned from an Asian-based customer and $31,959 which was earned from European customers (2018: $453,124 earned from a North American customer).
- engineering services revenue of $17,556 (2018: $44,638) which was earned from a European customer.

Non-current assets	30 June 2019 US$	31 December 2018 US$
North America	1,211,194	1,018,340
EMEA	80, 413	982,188
	1,291,607	2,000,528

13. COMMITMENTS

The Group has no commitments as at 30 June 2019.

14. EVENTS AFTER BALANCE DATE

On 26 June 2019 the Company announced an accelerated non-renounceable entitlement to the market. On 8 July 2019 the Company completed the institutional component of the offer raising A$6.7 million, before costs, from the issue of 112,206,282 fully paid ordinary shares. The Company raised a further A$3,992,840 on 16 July 2019 from the issue of 66,547,327 fully paid ordinary shares upon the completion of a 1 for 4 accelerated non-renounceable entitlement offer to retail investors.

On 29 July 2019, the Company paid $700,000 to Socionext America Inc in accordance with the terms of the definitive agreement for product development and manufacture of the Akida™ Neuromorphic System-on-Chip ("NSoC").

No other matters or circumstances have arisen since the end of the half-year which significantly affected or may significantly affect the operations of the Group, the results of those operations, or the state of affairs of the Group in subsequent financial periods.

Director's Declaration

In accordance with a resolution of the Directors of BrainChip Holdings Ltd, I state that:

1. In the opinion of the Directors:

   (a) the financial statements and notes of the Group are in accordance with the *Corporations Act 2001*, including:

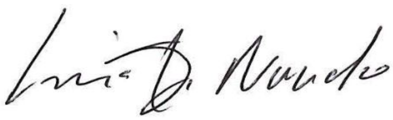
      (i) giving a true and fair view of the Group's financial position as at 30 June 2019 and of its performance for the half-year ended on that date; and

      (ii) complying with the Australian Accounting Standards (including the Australian Accounting Interpretations) and Corporations Regulations 2001; and

   (b) there are reasonable grounds to believe that the Company will be able to pay its debts as and when they become due and payable; and

2. This declaration has been made after receiving the declarations required to be made to the Directors in accordance with section 295A of the *Corporations Act 2001* for the half-year ended 30 June 2019.

On behalf of the Board.



Louis DiNardo

Executive Director and Chief Executive Officer
California, USA, August 26, 2019

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Independent auditor's review report to the Members of BrainChip Holdings Ltd

Report on the half-year financial report

Conclusion

We have reviewed the accompanying half-year financial report of BrainChip Holdings Ltd (the Company) and its subsidiaries (collectively the Group), which comprises the consolidated statement of financial position as at 30 June 2019, the consolidated statement of profit or loss and other comprehensive income, consolidated statement of changes in equity and consolidated statement of cash flows for the half-year ended on that date, notes comprising a statement of significant accounting policies and other explanatory information, and the directors' declaration.

Based on our review, which is not an audit, nothing has come to our attention that causes us to believe that the half-year financial report of the Group is not in accordance with the *Corporations Act 2001*, including:

a. giving a true and fair view of the consolidated financial position of the Group as at 30 June 2019 and of its consolidated financial performance for the half-year ended on that date; and

b. complying with Accounting Standard AASB 134 *Interim Financial Reporting* and the *Corporations Regulations 2001*.

Emphasis of matter - material uncertainty related to going concern

We draw attention to Note 2 Going Concern in the financial report which describes the principal conditions that raise doubt about the consolidated entity's ability to continue as a going concern. These events or conditions indicate a material uncertainty exists that may cast significant doubt on the Group's ability to continue as a going concern. Our review conclusion is not modified in respect of this matter.

Directors' responsibility for the half-year financial report

The directors of the Company are responsible for the preparation of the half-year 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 half-year financial report that is free from material misstatement, whether due to fraud or error.

Auditor's responsibility

Our responsibility is to express a conclusion on the half-year financial report based on our review. We conducted our review in accordance with Auditing Standard on Review Engagements ASRE 2410 *Review of a Financial Report Performed by the Independent Auditor of the Entity*, in order to state whether, on the basis of the procedures described, anything has come to our attention that causes us to believe that the half-year financial report is not in accordance with the *Corporations Act 2001* including: giving a true and fair view of the Group's consolidated financial position as at 30 June 2019 and its consolidated financial performance for the half-year ended on that date; and complying with Accounting Standard AASB 134 *Interim Financial Reporting* and the *Corporations Regulations 2001*. As the auditor of the Group, ASRE 2410 requires that we comply with the ethical requirements relevant to the audit of the annual financial report.

A review of a half-year financial report consists of making enquiries, primarily of persons responsible for financial and accounting matters, and applying analytical and other review procedures. A review is substantially less in scope than an audit conducted in accordance with Australian Auditing Standards and consequently does not enable us to obtain assurance that we would become aware of all significant matters that might be identified in an audit. Accordingly, we do not express an audit opinion.

Independence

In conducting our review, we have complied with the independence requirements of the *Corporations Act 2001*.

Ernst & Young

Ernst & Young

Philip Teale
Partner
Perth
27 August 2019