ALPHAWAVE IP GROUP PLC
INTERIM RESULTS FOR THE SIX MONTHS ENDED 30 JUNE 2024

- Technology leadership and expanded product portfolio drives record of 23 design wins across IP, Custom Silicon, Silicon Products and Chiplets with 108 customers including major global hyperscalers
- Revenue of US$91m and Adjusted EBITDA loss of US$12m reflective of expected change in revenue mix towards diversified business; US$50m of pre-tax operating cash inflow indicative of the continued focus on working capital
- Bookings remain strong at US$225m, up 20% from H1 2023 bookings of US$187m, with current non-cancellable backlog excluding royalties of US$486m

LONDON, United Kingdom and TORONTO, Ontario, Canada, 23 September 2024 - Alphawave IP Group plc (LSE: AWE, "Alphawave Semi", or the "Company" and together with its subsidiaries, the "Group"), a global leader in high-speed connectivity for the world's technology infrastructure, announces its interim results for the six months ended 30 June 2024.

Financial Summary and APMs[1] – US$m	H1 2024	H1 2023	Change
Licence and NRE	64.8	73.6	(11%)
Royalties and silicon	26.2	113.6	(77%)
Revenue	91.0	187.2	(51%)
Gross Profit	41.3	82.5	(41.2)
Gross margin	*(45%)*	*(44%)*	
Operating loss	(48.3)	(2.6)	(45.7)
Operating margin	*(53%)*	*(1%)*	
EBITDA[1]	(31.5)	10.7	(42.2)
EBITDA margin[1]	*(35%)*	*6%*	
Adjusted EBITDA[1]	(11.8)	32.4	(44.2)
Adjusted EBITDA margin[1]	*(13%)*	*17%*	
Loss after tax[2]	(40.0)	(8.9)	(31.1)
Loss after tax margin	(44%)	*(5%)*	
Adjusted (loss)/profit after tax[1,2]	(13.5)	20.0	(33.5)
Adjusted (loss)/profit after tax margin	(15%)	11%	
Pre-tax operating cash flow	50.4	(31.3)	81.7
Cash and cash equivalents	76.3	122.8	(46.5)
Net debt[1]	(141.6)	(100.0)	(41.6)

Bookings[3] and Design Win Activity – US$m	H1 2024	H1 2023	Change
Licence and NRE	203.5	114.9	77%
Royalties and silicon	21.8	72.2	(70%)
New Bookings	225.3	187.2	20%
Additional design win activity – FSA drawdowns and China re-sale licences[4]	-	3.4	nm
Number of revenue generating end-customers (end of period)	73	85	27%

Note: Due to rounding, numbers presented in the table may not add up to the totals provided and percentages may not precisely reflect the absolutely figures. 'nm', where referenced, means 'not meaningful'.

[1] See Alternative Performance Measures (APMs) section on page 30. Adjusted EBITDA and adjusted profit after tax exclude foreign exchange adjustments, share-based payments, deferred compensation payments, and M&A transaction costs.
[2] H1 2023 restated – see note 2 'interim 2023 restatement' paragraph.
[3] Bookings are a non-IFRS measure representing legally binding and largely non-cancellable commitments by customers to license our technology. Bookings comprise licence fees, non-recurring engineering, support, silicon orders, and, in some instances, our estimates of potential future royalties.
[4] Both FSA (Flexible Spending Account) drawdowns and China re-sale licences convert previously announced contractual commitments included within bookings reported in prior periods to new product design wins which will be recognised as revenue over time.

Tony Pialis, President and Chief Executive Officer of Alphawave Semi said: "We are successfully executing on our strategy, with a significantly expanded range of advanced connectivity solutions, including chiplets, that will enable the next generation of AI and cloud infrastructure. In the first half of the year, we have continued investing organically to support our pipeline and future revenue growth. Our leading connectivity technology and strong execution give us confidence in the prospects for our business in the second half of 2024 and beyond."

John Lofton Holt, Executive Chairman of Alphawave Semi, added: "The first half 2024 revenue and adjusted EBIDTA were impacted by the timing of specific customer programmes. We expect revenue and adjusted EBITDA in the second half to increase significantly over the first half as our high-quality design wins from last year tape out and convert into revenue. Bookings, which is a leading indicator of demand for our technology solutions in all forms – IP, Custom Silicon, Silicon Products and Chiplets, continues to demonstrate strong growth in our target markets. With a robust backlog of nearly half a billion dollars, we are well positioned to meet our future growth targets."

Interim Results Highlights

- H1 2024 revenues of US$91.0m (H1 2023: US$187.2m) reflect an expected strategic change in business mix including revenue from IP licences and silicon, and a significant reduction of legacy China business. Anticipated tape outs of certain ASICs and the timing of conversion of IP and NRE bookings into revenue is expected to help drive significant revenue growth in H2 2024 compared to H1 2024
- H1 2024 adjusted EBITDA loss of US$11.8m (H1 2023: gain of US$32.4m) was impacted by the lower revenues and continued R&D investment in chiplets and new Silicon connectivity products. These new Silicon connectivity products are expected to begin shipping as samples in 2024 and ramp into production in 2025
- Cash generated from pre-tax operating activities in H1 2024 was US$50.4m (H1 2023 cash outflow: US$31.3m) including US$32.2m increase in deferred revenue and flexible spending accounts. Operating cash flow performance is reflective of the timing differences between cash collection and revenue recognition
- Cash and cash equivalents held by the Company were US$76.3m with net debt of US$141.6m. The Company restructured its debt facility shortly after the end of H1 2024 to align the debt covenants with operational metrics.

Business and Technology Highlights

- IP & NRE bookings in H1 2024 up 77% year-on-year. 92% of these bookings in advanced nodes, with a total of 22 customers including major global hyperscalers, and eight of the top 20 global semiconductor companies by market cap[5]
- Expanded technology leadership with the world's leading semiconductor foundries with complete portfolio of Connectivity IP in 3/2nm nodes: 112/224G, PCIe7/6, HBM4/3 and UCIe.
- Complete suite of 5nm, 4nm, and 3nm silicon proven connectivity IP for AI/HPC and cloud infrastructure market. Investments ongoing in 2nm and beyond process nodes.
- Announced industry's first comprehensive and customisable portfolio of chiplets covering I/O and compute in partnership with Arm as part of the Arm Total Design platform. Sampling I/O chiplets to major customers in H2 2024.
- Need for Sovereign AI driving design wins across new geographies.
- Executed tapeout of our second generation 224Gbps PAM4 DSP Connectivity products.
- Continued investments and enablement in silicon supply chain for advanced packaging technology to ensure cost competitiveness and supply for customers.

Outlook

[5] https://companiesmarketcap.com/gbp/semiconductors/largest-semiconductor-companies-by-market-cap/

- Alphawave Semi expects to see 2024 revenue of $310 to $330m and adjusted EBITDA of approximately $50m. The changes to the guidance reflect the impact on H1 2024 financials of the merger of two large AI customers in Korea that resulted in the consolidation of development programmes already in progress, as well as the timing of tape outs in H2 2024

- The outlook for 2025 and 2027 remain unchanged, reflecting the sustained bookings growth and increased backlog conversion to revenue expected in H2 2024 and beyond

- Advanced node custom silicon design wins, with internal IP, from the last six quarters are scheduled for tapeout in H2 2024 leading to ramp of silicon revenues in 2025 and beyond

Results Presentation and Webcast

A presentation for investors and analysts will be held at 8.30am BST, on 23 September 2024. To register for the webcast:

https://us02web.zoom.us/webinar/register/WN_CNrQf_PYR2iFcWa7giR8iQ

After registering, you will receive a confirmation email with information about joining the webcast.

The Company's H1 2024 Report is also available to view in the Investor Relations section of the Company's website (https://awavesemi.com/investors/events-announcements-and-presentations/).

About Alphawave Semi

Alphawave Semi is a global leader in high-speed connectivity for the world's technology infrastructure. Faced with the exponential growth of data, Alphawave Semi's technology services a critical need: enabling data to travel faster, more reliably and with higher performance at lower power. Alphawave Semi is a vertically integrated semiconductor company, and our IP, custom silicon, and connectivity products are deployed by global tier-one customers in data centres, compute, networking, AI, 5G, autonomous vehicles, and storage. Founded in 2017 by an expert technical team with a proven track record in licensing semiconductor IP, its mission is to accelerate the critical data infrastructure at the heart of the digital world. To find out more about Alphawave Semi, visit: awavesemi.com

Trademarks

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This document may contain forward-looking statements which are made in good faith and are based on current expectations or beliefs, as well as assumptions about future events. You can sometimes, but not always, identify these statements by the use of a date in the future or such words as "will", "anticipate", "estimate", "expect", "project", "intend", "plan", "should", "may", "assume" and other similar words. By their nature, forward-looking statements are inherently predictive and speculative and involve risk and uncertainty because they relate to events and depend on circumstances that will occur in the future. You should not place undue reliance on these forward-looking statements, which are not a guarantee of future performance and are subject to factors that could cause our actual results to differ materially from those expressed or implied by these statements. The Company undertakes no obligation to update any forward-looking statements contained in this document, whether as a result of new information, future events or otherwise.

A. Operational and Strategic Highlights

Summary

Total bookings in H1 2024 of US$225.3m, up 20% year-on-year reflects strong demand for the Group's industry-leading technology across IP, Custom Silicon, Silicon Products and Chiplets. With total backlog of US$486.4m, the Group is poised to deliver a strong H2 2024 and accelerated financial performance in 2025 and beyond.

Licence and non-recurring engineering ("NRE") bookings in H1 2024 were US$203.5m, up 77% year-on-year. North American customers represented approximately 50% of these bookings, followed by APAC (excluding China) 38% and EMEA customers, 4%. China represented 8%, down from 9% in H1 2023. Royalties and Silicon orders were US$21.8m, down 70% over H1 2023 (H1 2023: US$72.2m) which was driven by pre-existing custom silicon designs from the acquisition of OpenFive in H2 2022.

During H1 2024 there were no Flexible Spending Accounts ("FSA") drawdowns (H1 2023: US$nil) and China (VeriSilicon) reseller deals totalled US$nil (H1 2023: US$3.4m). Both FSA and reseller deals are not new bookings but represent the conversion of prior customer commitments to design wins. There was no licence revenue recognised in H1 2024 from the WiseWave subscription licence agreement, following completion of all our delivery obligations in 2023.

As of 30 June 2024, Alphawave Semi had more than eight of the top twenty semiconductor device companies as customers[6], a reflection of its continued strength in the data infrastructure markets that require the world's most advanced connectivity technology.

Revenue in H1 2024 was US$91.0m down 51% year-on-year (H1 2023: US$187.2m), driven by a change in revenue mix towards the vertically integrated semiconductor business, which has longer revenue recognition cycles than the historical IP licensing business. During H1 2024 the Group recognised revenue from 73 customers compared to 85 in H1 2023 which included substantial revenues from the legacy custom silicon business in China. H1 2024 revenue continued to be heavily weighted to core markets of data networking, cloud compute, and AI. 20% of revenue in the period was generated from Chinese customers (H1 2023: 66%).

Gross margin in H1 2024 was 45% compared to 44% in H1 2023. The gross margin expansion anticipated in 2024 reflects the strategic move away from lower margin silicon sales to Chinese customers. Through the acquisition of OpenFive, the Group inherited a number of contracts with gross margins below our targets and throughout 2023 and 2024 the Group has reduced its exposure to these contracts.

The year-on-year increase in R&D, S&M and G&A expenses from US$63.4m to US$70.0m was primarily due to the increase from 744 employees in H1 2023 to 896 in H1 2024, together with associated software tool costs which scale with R&D/engineering headcount. In addition, the Group invested in support functions, HR and ERP systems, and scaled the finance, HR, legal and corporate marketing teams, reflecting the increased complexity and the extended geographical footprint of the Group. In H1 2024 the Group capitalised US$33.8m of R&D expenses related to the development of future products (H1 2023: US$24.7m).

Other operating expenses in H1 2024 totalled US$19.6m (H1 2023: US$21.7m), and consisted of the following:

- share-based compensation expense of US$10.7m (H1 2023: US$18.5m). The reduction in the share-based compensation expense was due to the front-loaded weighting of the four-year charge relating to awards to employees who joined the business through the acquisitions of OpenFive and Banias Labs in Q4 2022 which led to a larger charge in H1 2023 relative to H1 2024.
- acquisition-related costs of US$6.5m (H1 2023: US$0.3m credit). The increase in acquisition-related costs was due to the release of an escrow payment of US$6.2m to one of the vendors of Precise-ITC that became due in H1 2024. This payment is a compensatory expense for financial reporting purposes per guidance included in IFRS 3 Business Combinations and was included within Other Operating Expenses due to it being economically connected to a business acquisition.
- compensation element of Banias Labs deferred cash rights of US$3.8m (H1 2023: US$4.1m)[7]

[6] Semiconductor device companies ranked on market capitalisation as of 11.07.23.

[7] Deferred compensation payments related to acquisitions which are expected to be settled over time until August 2026.

Over the period the Group generated an operating loss of US$48.3m, driven by continued investment in new products in IP, Silicon Products, Connectivity Products and Chiplets and the margin profile of Silicon Products. This margin profile is expected to improve significantly in future periods.

Adjusted EBITDA in H1 2024 was a loss of US$11.8m (negative 13% margin) compared to US$32.4m (17% margin) in H1 2023. This decrease is primarily driven by the 2024 revenue profile during a period of investment in future products.

The Group closed the period with cash and cash equivalents of US$76.3m compared to US$101.3m and US$122.8m at the end of December 2023 and June 2023, respectively. At the end of H1 2024, the Group had a net debt position of US$141.6m (FY 2023: net debt position of US$119.1m; H1 2023: net debt position of US$100.0m).

End Market Drivers Remain Strong Despite Macro Weakness

Alphawave sees increasing demand in all of its core markets of AI and data centre compute infrastructure, despite the uncertain and weak macroeconomic environment globally. The Group is well positioned to take advantage of the opportunity in AI and associated infrastructure buildouts that are continuing to accelerate globally. These core markets continue to provide compelling opportunities for growth. As organisations across the globe look to take advantage of the opportunities in the era of AI everywhere, there is tremendous opportunity for Alphawave. Hyperscalers and cloud service providers (CSPs) are making the necessary investments to deploy AI at scale. However, there is no one-size-fits-all approach. A combination of graphics processing units (GPUs) and custom AI silicon is being introduced to scale compute and meet the specific requirements of different language models. This presents a challenge to connectivity infrastructure which is facing ever increasing requirements on bandwidth, speed, latency, reliability, and scale. To scale next generation AI, hyperscalers and CSPs will need to deploy a mix of customised compute and high-performance connectivity technologies into newly-upgraded infrastructure. All of these areas of investment represent opportunities for Alphawave.

The technology industry is still in the early stages of AI/ML networking buildouts, and the market is poised to grow significantly, exceeding US$500 billion globally by 2027[8], and overtake many other markets in size and growth rates. The generative AI (GenAI) part of global AI/ML spending is estimated to reach ~US$151 billion and account for ~30% of the IT spending on AI/ML infrastructure[8]. As new AI focused ASICs and GPUs hit the market and ramp growth, networking diversity will be key to keeping pace with demand. The data centre AI networking market is expected to grow to nearly US$20 billion in 2025 led by Ethernet, InfiniBand and 800G Optical Transceivers[9].

The Group's pipeline of customer opportunities reflects these trends. The customer base continues to seek differentiation and enhanced performance by transitioning faster to lower design nodes, with the majority of Alphawave's H1 2024 licence and NRE bookings in 7nm and below.

The ongoing constraints on the semiconductor supply chain and the ubiquitous presence of semiconductors globally continue to reinforce the importance of semiconductor technology on a global scale. As the digital infrastructure continues to grow and the AI/ML component transitions to leading and more efficient technologies, the Group remains confident in the long-term outlook in all areas of the business.

Expanding Technology Leadership and Customer Traction – Chiplets Coming on Strong

During H1 2024, the Group recognised revenue from 73 customers, compared to 85 customers in H1 2023 and 103 customers in FY 2023. H1 2024 revenue continued to be heavily weighted to the core markets of AI and data centre compute infrastructure.

In H1 2024, customers' demand for high-performance IP and silicon products remained robust and the Group's pipeline is as strong as it has ever been. Since 2017, the Group has demonstrated connectivity technology leadership

[8] IDC estimates that $521 billion will be spent on AI/ML enterprise implementations worldwide in 2027.
IDC, Worldwide Core IT Spending for GenAI Forecast, 2023–2027: GenAI Is Triggering Hyper-Expansion of AI Spending, IDC #US51539723, December 2023

[9] 650 Group, 4 June 2024, Data centre AI Networking to Surge to Nearly $20B in 2025, According to 650 Group - 650 Group

in leading-edge technologies, now including 3nm. In H1 2024, the Group achieved a 3nm IP license design win coming from a North American customer specialising in Artificial Intelligence.

As Alphawave Semi technology allows for faster and faster data rates, the transmission medium moves from copper to optics. At the Optical Fiber Conference Alphawave Semi partnered with Innolight, the leader in data centre optics, to demonstrate the PCIe 6.0 (Controller+PHY) over Innolight's LPO OSFP optics. This is tailored to meet the demanding requirements of high-bandwidth and high-density AI networks.

During the first half of 2024, Alphawave Semi expanded its ongoing collaboration with the leading foundries in the industry. The Group announced the availability of its silicon proven connectivity IP platform on TSMC's most advanced 3nm process and initial investment in 2nm and smaller nodes . These new platforms are crucial for the development of a new generation of advanced chips needed to cope with the exponential growth in AI-generated data, and enables higher performance, enhanced memory and I/O bandwidth, and reduced power consumption. This flexible and customisable connectivity IP solution together with Alphawave Semi's chiplet-enabled custom silicon platform which includes I/O, memory and compute chiplets, allows end-users to produce high-performance silicon specifically tailored to their applications.

Alphawave Semi also announced the expansion of its ongoing collaboration with Samsung to include the 2nm process node. Samsung Foundry platform customers now benefit from Alphawave Semi's most advanced high-performance connectivity IP and chiplet technologies, including PCIe 7.0, 112G and 224G Ethernet, and UCIe, to build the complex systems-on-a-chip (SoCs) needed to keep pace with the rapidly growing demands of data-intensive applications such as GenAI and the associated infrastructure required by global data centres.

Throughout H1 2024, Alphawave has continued to demonstrate design win leadership in chiplets for AI and the data infrastructure markets for hyperscalers and semiconductor companies. In June, the Group announced an Arm Neoverse CSS-based CPU chiplet with ultra-high-speed interfaces and advanced packaging that delivers scalable performance for AI, HPC and networking infrastructure. As of the end of H1 2024, The Group has secured a total of three design wins for chiplets – all from major semiconductor companies in the AI and cloud computing markets. These chiplets are expected to enter production in 2025 and contribute significant revenue in 2025 and beyond.

Investing in People

During the first six months of 2024, the Group continued to make opportunistic investments in talent, albeit at a much lower rate than in H2 2023. As of 30 June 2024, total closing headcount increased to 896, comprising 794 in R&D/engineering, 33 in sales and marketing and 69 in general and administrative roles (from 741, 30 and 58, respectively as at 31 December 2023). Turnover rate[10] remained broadly stable at approximately 6% and the percentage of female employees as of 30 June 2024 was 19%, broadly in line with the ratio as at the end of 2023.

Significant Post-Interim Events

As previously reported, shortly after H1 2024 ended, the Company completed a restructuring of its debt facility to align debt covenants more closely with operational metrics.

[10] Last twelve months turnover rate

B. Financial Highlights

Contracted Order Book and Backlog

Total bookings in H1 2024 of US$225.3m were up 20% over the prior year (H1 2023: US$187.2m) due to increased design win momentum across the vertically integrated semiconductor business. North American customers represented 51% of total bookings.

Licence and NRE bookings in H1 2024 were US$203.5m, up 77% year-on-year. North American customers represented approximately 50% of these bookings, followed by 38% from APAC customers (excluding China). China represented 8% of licence and NRE bookings. Royalties and Silicon orders were US$21.8m, down 70% over H1 2023 (H1 2023: US$72.2m). The level of silicon orders in H1 2023 was driven by pre-existing custom silicon designs for North American and Chinese customers from the acquisition of OpenFive.

During H1 2024 there were no FSA drawdowns (H1 2023: US$nil) and China (VeriSilicon) reseller deals totalled US$nil (H1 2023: US$3.4m). Both FSA and reseller deals are not new bookings but represent the conversion of prior customer commitments to design wins.

At the end of H1 2024, backlog (contracted bookings not yet recognised as revenue) excluding royalties was US$486.4m.

Revenues

Revenue in H1 2024 was US$91.0m down 51% year-on-year (H1 2023: US$187.2m), primarily due to the timing of specific customer programmes, as well as H1 2023 including substantial revenues from the legacy custom silicon business in China. H1 2024 revenue is heavily weighted to the core markets of AI, data networking and cloud compute.

- Customers - In H1 2024 the Group recognised revenues from 73 end-customers, compared to 85 end-customers in H1 2023 and 103 in FY 2023. The top three customers represented 32% of H1 2024 revenues versus 42% in H1 2023. WiseWave was not one of the top three customers in H1 2024.

- Regions **-** In H1 2024, revenues were 46% from customers in North America, 20% from China, 27% from APAC (excluding China) and 7% from EMEA. The decrease in contribution from China in H1 2023 (66% of revenue) was due to the reduction in the legacy custom silicon business from the acquisition of OpenFive and the fulfilment of the multi-year subscription licence agreement with WiseWave in 2023.

Operating Expenses and Profitability

In H1 2024, gross margin was 45% compared to 44% in H1 2023. This is broadly in line with H1 2023 and continues to reflect the diversification of our business into custom silicon development and silicon products. Through the acquisition of OpenFive, the Group inherited a number of contracts with gross margins below Group targets. While we have completed or exited some of these low margin contracts, some continued to have revenue recognised in H1 2024.

Operating expenses in H1 2024 totalled US$89.6m compared with US$85.1m in H1 2023. Operating expenses in H1 2024 included US$19.6m of other operating expenses (H1 2023: other operating expenses US$21.7m) including FX gains and losses, share-based payments and deferred compensation payments related to acquisitions.

The decrease in share-based payments, to US$10.7m in H1 2024 from US$18.5m in H1 2023, was primarily due to the significant investment in headcount relating to the acquisitions. Monthly graded vesting of share-based payments resulted in the initial year’s charge being more heavily weighted than the latter years.

Reflecting the continued scaling of the business, R&D, S&M and G&A expenses in H1 2024 totalled US$70.0m, compared to US$63.4m[11] in H1 2023. This increase was primarily due to the significantly higher headcount together

[11] See note 2 ‘interim 2023 restatement’ paragraph

with software tool costs which scale with R&D/engineering headcount. In the first six months of 2024, the closing headcount increased by 67 employees. Of the US$70.0m of operating expenses excluding M&A costs/professional costs, share-based payment charges and exchange gains in H1 2024, US$39.4m (43% of revenue) relate to R&D / engineering, US$23.6m (26% of revenue) to general and administrative expenses and US$7.0m (8% of revenue) to sales and marketing expenditure. General and administrative expenses include an expected credit loss of US$0.7m (H1 2023: US$2.7m) based on an assessment of potential credit loss on trade receivables and contract assets. Excluding this, general and administrative expenses for H1 2024 were US$22.9m (25% of revenue).

In H1 2024, the business generated an operating loss of US$48.3m compared to a US$2.6m operating loss in H1 2023. The increase in operating loss is primarily due to the reduction in revenue.

Depreciation and amortisation expenses in H1 2024 were US$16.9m (H1 2023: US$13.3m), of which US$2.7m related to right-of-use assets (H1 2023: US$2.0m), namely premises and leased test equipment. The increase was mainly driven by property and equipment additions in Q1 2023 relating to our new Bangalore and San Jose offices.

EBITDA in H1 2024 was a loss of US$31.5m (negative 35% margin) compared to US$10.7m (6% margin) in H1 2023.

Adjusted EBITDA in H1 2024 was a loss of US$11.8m (negative 13% margin) compared to US$32.4m (17% margin) in H1 2023. The expected decrease in adjusted EBITDA margin reflects the transition to a combined IP licensing and silicon business model and the scaling of engineering capabilities to support the pipeline of opportunities.

On an adjusted basis[1] loss after tax for the period was US$13.5m, compared to a profit after tax[2] of US$20.0m in H1 2023.

Balance Sheet

The Group ended H1 2024 with cash and cash equivalents of US$76.3m compared to US$101.3m at the end of December 2023. The net debt position at the end of H1 2024 was US$141.6m, compared to US$119.1m at the end of December 2023.

Shortly after H1 2024, Alphawave amended its existing debt facility to align covenants more closely to operational metrics. This increased flexibility will allow the Group to capitalise on its strong pipeline of opportunities. As the amendment was formalised after the close of the period, the entire facility is reflected as a current liability at the end of June 2024. Having finalised the amendment with the lenders, starting in Q3 2024, only the portion of the debt repayable within 12 months will be classified as current, with the balance classified as non-current.

In H1 2024, current trade and other receivables and other assets decreased from US$97.1m at 31 December 2023 to US$70.8m, largely due to a US$9.9m decrease in prepayments and US10.5m decrease in restricted cash. The deferred cash balance is reduced as payments are made to employees on a quarterly basis and is expected to be settled over the period to August 2026. In addition, there is an increased expected credit loss provision of US$0.2m to US$5.9m, based on an assessment of credit risk on trade receivables and contract assets.

Contract assets, i.e. revenue recognised but not yet billed to the customer, decreased from US$65.2m at the end of 2023 to US$54.8m at the end June 2024.

In the first six months of 2024, intangible assets increased from US$203.3m to US$237.4m, largely as a result of the ongoing capitalisation of development expenditure.

The carrying value of our investment in our equity-accounted associate, WiseWave, was US$nil as at 30 June 2024 and 31 December 2023, as a result of accounting for losses at WiseWave during prior periods. Our share of cumulative losses incurred by WiseWave in excess of the cumulative value of our investment as at 30 June 2024 was US$8.6m, which has not been reflected in our H1 2024 financial results as the Company has no obligation to provide additional capital contributions to WiseWave incremental to investments already completed.

In H1 2024 current trade and other payables increased from US$69.3m to US$72.2m due to timing of supplier invoice receipt and timing of payments. Contract liabilities, including the flexible spending account, where the

Group has invoiced or received money from customers for products or services where revenue recognition conditions have not yet been met, increased from US$56.0m at the end of 2023 to US$88.3m at the end of H1 2024. This increase is partially due to NRE invoicing and cash received towards the end of Q2 2024 where the revenue is expected to be recognised in Q3 and Q4 2024. The remainder of the total increase was driven by an increase in the flexible spending account of US$12.9m of invoices raised in H1 2024 against two FSA agreements.

Liquidity and Cashflow

In H1 2024 the Group generated a pre-tax operating cash inflow of US$50.4m, compared to a cash outflow of US$31.3m in H1 2023. The cash generated in H1 2024 was largely due to an improvement in working capital of US$74.4m. The working capital improvement was the result of an increase in contract liabilities of US$32.2m, an increase in trade and other payables of US$1.2m, a decrease in contract assets of US$10.4m, a decrease in inventories of US$7.2m and a decrease of trade and other receivables of US$23.4m.

Capital expenditure on intangible assets and property and equipment during H1 2024 totalled US$59.2m (H1 2023: US$39.3m). The increase in capital expenditure is due to the ongoing capitalisation of eligible engineering costs relating to projects that generate intangible assets and increased property and equipment expenditure on mask sets for future Alphawave products, upgrades and expansions to our IT infrastructure, purchases of test equipment and leasehold improvements to our new offices in Bangalore and San Jose. During the first six months of 2024, the Group capitalised US$33.8m of development expenditure (H1 2023: US$24.7m).

During H1 2024, the Company made no further equity investment in WiseWave and no other equity investments.

Principal Risks and Uncertainties

The Group faces a number of risks and uncertainties that may have an impact on our operations and performance. These risks and uncertainties are regularly assessed by the Directors. The principal risks and uncertainties affecting the Group in respect of the first half of the year have not changed materially from those set out on pages 74 to 77 of the 2023 Annual Report. In summary, the principal risks and uncertainties are as follows:

Risk	Description
Managing our growth	We have a limited operating history and are growing rapidly, with increased pressure on cash flows. If we do not manage our growth successfully, fail to execute on our strategy, fail to meet future debt covenants or maintain sufficient liquidity, or fail to implement or maintain governance and control measures, our business may be adversely impacted. We have rapidly expanded our headcount and the complexity of our business and operations, both organically and through acquisitions.
Competition and failure to maintain our technology leadership	We seek to maintain our competitive advantage by being first to market with new IP as data speeds increase and manufacturing sizes decrease. If these industry transitions do not materialise, or are slower than anticipated, our competitors may be able to introduce competing IP which may diminish our competitive advantage and selling prices. Our ability to maintain our technology leadership is further dependent on our ability to attract R&D and engineering talent.
Customer dependence	Our products and technology target the AI, data centre and network infrastructure markets, where there are a limited number of customers. Further, the cost and complexity of developing semiconductors targeted by our IP limits the number of our potential addressable customers. In any reporting period, a substantial part of our revenues may be attributable to a small number of customers.
Customer demand	Demand for our technology is dependent on the continued global growth in generation, storage and consumption of data across our target markets, as well as the increasing cost and complexity of designing and manufacturing semiconductors. We may be impacted by our customers' demand sensitivity to broader economic and social conditions. Our potential customers may seek to develop competitive IP or semiconductors internally or acquire IP or semiconductors from our competitors.
Risks associated with WiseWave	We are a significant minority shareholder in WiseWave but intend to disposition our investment. We may be limited in our ability to influence strategy, operational, legal, commercial or financial matters of WiseWave. While we believe that receivables due from WiseWave will continue to be paid, there is a risk of collectability. There is also a risk that we are unable to realise the full economic value of our investment in WiseWave on exiting the joint venture.
Dependence on licensing revenues	Our financial performance is dependent on licensing revenues and we do not anticipate a material contribution from royalty revenues for some years. Further, customers may decide not to launch production of custom chip products even if the related development project has been completed. If our customers delay or cancel their development projects, fail to take their products to production or those products are not successful, our royalty revenues may be delayed, diminished or not materialise.
Reliance on key personnel and ability to attract talent	We rely on the senior management team and our business may be negatively impacted if we cannot retain and motivate our key employees. Our ability to grow the business is also dependent on attracting talent, particularly in R&D and engineering, and if we are unable to do so, our business may be negatively impacted.
External environment and events	Semiconductors are becoming increasingly important as countries and regions seek to guarantee supply and build domestic supply chains, as well as restrict outside access to their domestic technologies. Our business could be impacted by the actions of governments, political events or instability, or changes in public policy in the countries in which we operate. The current conflict in the Middle East potentially has wide-ranging

	impacts, including global economic instability, increased geopolitical tensions and disruption to our operations and supply chains.
IP protection and infringement	We protect our technology through trade secrets, contractual provisions, confidentiality agreements, licences and other methods. A failure to maintain and enforce our IP could impair our competitiveness and adversely impact our business. If other companies assert their IP rights against us, we may incur significant costs and divert management and technical resources in defending those claims. If we are unsuccessful in defending those claims, or we are obliged to indemnify our customers or partners in any such claims, it could adversely impact our business.
Reliance on third-party manufacturing foundries	We rely on third-party semiconductor foundries, both as customers and as manufacturing partners to our customers. If foundries delay the introduction of new process nodes or customers choose not to develop silicon on those process nodes, our ability to license new IP and our selling prices may be adversely impacted. By pursuing a vertically integrated model and supplying silicon products, we are reliant on the foundries' capacity for a portion of our revenues and this reliance may increase as royalty revenues become more material to us.
Reliance on complex IT systems	We rely heavily on IT systems to support our business operations. The vast majority of our design tools, software and IT system tools are off-the-shelf solutions and our business would be disrupted if these components became unavailable. If our IT systems were subject to disruption, for example, through malfunction or security breaches, we may be prevented from developing our IP and fulfilling our contracts with our customers.

Directors' Responsibility Statement

The Directors confirm that, to the best of their knowledge:

- This condensed set of financial statements has been prepared in accordance with IAS 34 Interim Financial Reporting, as adopted for the use in the UK, and gives a true and fair view of the assets, liabilities, financial position and profit of the Group and Company; and

- This Half-Year Report includes a fair review of the information required by:

    - DTR 4.2.7R of the Disclosure Guidance and Transparency Rules, being an indication of important events that have occurred during the first six months of the financial year and their impact on the condensed set of financial statements and a description of the principal risks and uncertainties for the remaining six months of the financial year; and

    - DTR 4.2.8R of the Disclosure Guidance and Transparency Rules, being related party transactions that have taken place in the first six months of the current financial year and that have materially affected the financial position or performance of the Group during that period.

Details of all current Directors of Alphawave IP Group plc are maintained on www.awavesemi.com.

By order of the Board

Tony Pialis
President and Chief Executive Officer
20 September 2024

Condensed consolidated statement of comprehensive income

	Note	Unaudited six months ended 30 June 2024 US$'000	Restated[1] unaudited Six months ended 30 June 2023 US$'000
Revenue	4	**90,975**	**187,179**
Cost of sales		(49,682)	(104,659)
Gross profit		**41,293**	**82,520**
Research and development		(39,378)	(35,464)
Sales and marketing		(6,990)	(5,225)
General and administration		(23,603)	(22,695)
of which expected credit loss		*(699)*	*(2,713)*
Other operating expense	5	(19,636)	(21,716)
Operating loss		**(48,314)**	**(2,580)**
Finance income	8	1,773	1,719
Finance expense	8	(3,373)	(3,028)
Loss from joint venture	9	-	(2,730)
Loss before tax		**(49,914)**	**(6,619)**
Income tax benefit / (expense)	10	9,953	(2,275)
Loss after tax		**(39,961)**	**(8,894)**
Other comprehensive income			
Items that may be reclassified subsequently to profit or loss:			
Currency exchange (loss)/gain on translation of foreign operations		(1,431)	13,457
Total comprehensive (loss)/gain for the period		**(41,392)**	**4,563**

Loss per ordinary share attributable to the shareholders (expressed in cents per ordinary share):

Basic and Diluted earnings per share	11	(5.48)	(1.27)[1]

1. See note 2 'Interim 2023 restatement' paragraph.

The notes on this document form part of these financial statements.

Condensed consolidated statement of financial position

	Note	Unaudited as at 30 June 2024 US$'000	Audited year ended 31 December 2023 US$'000
Assets			
Current assets			
Cash and cash equivalents	15	76,307	101,291
Trade and other receivables	16	60,893	78,089
Contract assets	4	54,766	65,173
Inventories		4,422	11,622
Income tax receivables		30,871	23,467
Other current assets	17	9,860	19,017
Total current assets		**237,119**	**298,659**
Non-current assets			
Goodwill	12	309,199	309,199
Other intangibles assets	13	237,367	203,314
Property and equipment - owned	14	38,021	20,654
Property and equipment – leased		17,298	15,262
Other Investments		1,012	1,019
Trade and other receivables	16	5,095	6,392
Deferred tax assets		27,881	12,086
Total non-current assets		**635,873**	**567,926**
Total assets		**872,992**	**866,585**
Liabilities			
Current liabilities			
Trade and other payables	18	72,180	69,285
Contract liabilities	4	88,273	56,026
Income taxes payable		3,678	1,051
Lease liabilities		4,387	3,953
Loans and borrowings	19	216,250	5,625
Total current liabilities		**384,768**	**135,940**
Non-current liabilities			
Trade and other payables	18	120	1,775
Lease liabilities		14,410	12,727
Loans and borrowings	19	1,625	214,750
Deferred tax liabilities		32,919	32,945
Total non-current liabilities		**49,074**	**262,197**
Total liabilities		**433,842**	**398,137**
Net assets		**439,150**	**468,448**
Share capital and reserves			
Share capital	20	10,259	10,011
Share premium account		2,741	1,638
Merger reserve		(793,216)	(793,216)
Share-based payment reserve		29,810	41,875
Currency translation reserve		(87,977)	(86,546)
Retained earnings		1,277,533	1,294,686
Total equity		**439,150**	**468,448**

Condensed consolidated statement of cash flows

For the period ended 30 June 2024

	Note	Unaudited six months ended 30 June 2024 US$'000	Restated[1] unaudited six months ended 30 June 2023 US$'000
Cash flows from operating activities			
Net (loss)		(39,961)	(8,894)
Non-cash items within operating profit:			
Amortisation of intangible assets		7,150	6,778
Depreciation of property and equipment - owned		6,968	4,532
Depreciation of property and equipment - leased		2,732	1,997
Share-based compensation expense		10,743	18,502
Currency translation loss/(gain) on Intercompany balances		(2,257)	967
Deferred cash rights		3,788	4,069
Finance income		(1,773)	(1,719)
Finance expense		3,373	3,028
Loss from joint venture		-	2,730
Income tax expense		(14,764)	775
Cash generated from operations before changes in working capital		(24,001)	32,765
Changes in working capital:			
Decrease / (increase) in trade and other receivables		23,401	(3,707)
Decrease in inventories		7,200	2,790
Decrease / (increase) in contract assets	4	10,407	(8,431)
Increase / (decrease) in trade and other payables		1,175	(11,988)
Increase / (decrease) in contract liabilities	4	32,247	(42,696)
Cash generated from / (used in) operating activities before tax		**50,429**	**(31,267)**
Income tax paid		(3,395)	(5,420)
Net cash generated from / (used in) operating activities		**47,034**	**(36,687)**
Cash flows from investing activities			
Purchase of property and equipment		(24,346)	(13,233)
Purchase of intangible asset		(1,000)	(1,425)
Interest received		1,773	1,518
Capitalised development expenditure		(33,832)	(24,660)
Investments in joint venture and other investments		-	(3,730)
Net cash used in investing activities		**(57,405)**	**(41,530)**
Cash flows from financing activities			
Issuance of ordinary shares		1,351	617
Interest paid		(9,017)	(9,727)
Lease payments		(3,016)	(2,324)
Drawdown of loans and borrowings		-	15,000
Repayment of loans and borrowings		(2,500)	(2,500)
Net cash generated (used in)/from financing activities		**(13,182)**	**1,066**
Net (decrease)/increase in cash and cash equivalents		**(23,553)**	**(77,151)**
Cash and cash equivalents at the beginning of the year		101,291	186,231
Currency translation gain on cash and cash equivalents		(1,431)	13,684
Cash and cash equivalents at end of period	15	**76,307**	**122,764**

1. See note 2 'Interim 2023 restatement' paragraph.

Condensed consolidated statement of changes in equity

Six months ended 30 June 2024

US$'000	Note	Ordinary share capital	Share premium account	Merger reserve	Share-based payment reserve	Currency translation reserve	Retained earnings	Total equity
Balance at 1 January 2024		10,011	1,638	(793,216)	41,875	(86,546)	1,294,686	468,448
Loss for the period		-	-	-	-	-	(39,961)	(39,961)
Other comprehensive expense		-	-	-	-	(1,431)	-	(1,431)
Total comprehensive loss		-	-	-	-	(1,431)	(39,961)	(41,392)
Settlement of share awards:								
- Issue of ordinary shares		248	1,103	-	-	-	-	1,351
- Transfer of cumulative compensation expense on settled awards		-	-	-	(22,808)	-	22,808	-
Share-based compensation expense for the year		-	-	-	10,743	-	-	10,743
Other changes in equity		248	1,103	-	(12,065)	-	22,808	12,094
As at 30 June 2024 (Unaudited)		10,259	2,741	(793,216)	29,810	(87,977)	1,277,533	439,150

Restated[1] six months ended 30 June 2023

US$'000	Note	Ordinary share capital	Share premium account	Merger reserve	Share-based payment reserve	Currency translation reserve	Retained earnings	Total equity
As at 1 January 2023		9,751	775	(793,216)	18,189	(96,707)	1,329,481	468,273
Loss for the period (restated)		-	-	-	-	-	(8,894)	(8,894)
Other comprehensive expense		-	-	-	-	13,457	-	13,457
Total comprehensive loss		-	-	-	-	13,457	(8,894)	4,563
Settlement of share awards:								
- Issue of ordinary shares		132	575	-	(90)	-	-	617
- Transfer of cumulative compensation expense on settled awards		-	-	-	-	-	-	-
Share-based compensation expense for the year		-	-	-	18,502	-	-	18,502
Other changes in equity		132	575	-	18,412	-	-	19,119
As at 30 June 2023 (Unaudited)		**9,883**	**1,350**	**(793,216)**	**36,601**	**(83,250)**	**1,320,587**	**491,955**

1. See note 2 'Interim 2023 restatement' paragraph.

Notes to the unaudited interim statements

Six months ended 30 June 2024

1. General information

These condensed consolidated interim financial statements represent the consolidated interim financial statements of Alphawave IP Group plc (the 'Company' or 'Alphawave Semi') and its subsidiaries (together 'the Group').

The principal activities of the Company and its subsidiaries are described on pages 1 to 6.

The Company is a public limited company whose shares are listed on the London Stock Exchange and is incorporated and domiciled in the United Kingdom. The address of its registered office changed from 6th Floor, 65 Gresham Street, London, United Kingdom, EC2V 7NQ to Central Square, 29 Wellington Street, Leeds, United Kingdom, LS1 4DL on 26 June 2024.

2. Basis of preparation

The consolidated interim financial statements of the Group have been prepared in accordance with UK-adopted international accounting standard (IAS) 34 Interim Financial Reporting and should be read in conjunction with the Group's consolidated financial statements as of and for the year ended 31 December 2023. They do not include all the information required for a complete set of IFRS financial statements. However, selected explanatory notes are included to explain events and transactions that are significant to give an understanding of the changes in the Group's financial position and performance since the last annual consolidated financial information as of 31 December 2023 and for the six months ended 30 June 2023.

These consolidated interim financial statements do not comprise of statutory accounts within the meaning of Section 435 of the Companies Act 2006. The comparative figures for the six months ended 30 June 2023 are not the Group's statutory accounts for that financial period. The preparation of these consolidated interim financial statements requires the use of certain critical accounting estimates. It also requires management to exercise its judgement in the process of applying the Group's accounting policies. The areas involving a higher degree of judgement and complexity, or areas where assumptions and estimates are significant to the consolidated interim financial statements are disclosed in note 3.

These consolidated interim financial statements were authorised for issue by the Company's Board of Directors on 23 September 2024. The Independent Auditor's Report on the Annual Report and Accounts of Alphawave IP Group plc for the year ended 31 December 2023 was unqualified and did not draw attention to any matters by way of emphasis and did not contain statements under s498 (2) or (3) of the Companies Act 2006. The financial information for the periods ended 30 June 2024 and 30 June 2023 is unaudited but has been subject to a review by the Company's auditor.

Going concern

In preparing the condensed consolidated financial statements for the six months ended 30 June 2024, the Directors have updated their assessment of the Group's ability to continue as a going concern. The condensed consolidated financial statements have been prepared on a going concern basis which the Directors consider to be appropriate for the reasons outlined below.

As at 30 June 2024, the Group held cash and cash equivalents of US$76.3m and had bank borrowings totalling US$216.3m, comprised of a term loan of US$91.3m and US$125.0m drawn against a US$125.0m revolving credit facility. Both the term loan and the revolving credit facility are not scheduled to mature until the fourth quarter of 2027 but were subject to the following financial covenants as at 30 June 2024 that are defined in the related Credit Agreement:

- a maximum permissible net leverage ratio (ratio of consolidated total debt to consolidated adjusted EBITDA) of 3.00x; and
- a minimum liquidity balance of US$45.0m.

Compliance with the net leverage ratio financial covenant is tested quarterly and compliance with the minimum liquidity balance financial covenant is tested monthly, with both the balance of liquidity at the end of the month and the average daily balance through the month required to be above the minimum. During the second quarter of 2024, the Group's net leverage ratio was above 3.00x which technically represented a breach of the bank covenant as at 30 June 2024 and resulted in the debt being presented as current as at the balance sheet date. This was principally due to low adjusted EBITDA in the first half of 2024.

On 19 July 2024, the Group signed an amendment to the credit agreement with the lenders to increase the maximum permissible net leverage ratio applicable to Q2 2024 to 4.50x. From Q3 2024, the net leverage ratio covenant has been amended to measure net secured leverage, with a maximum permissible ratio of 3.00x for the remainder of the term of the loan. In addition to the above changes, the amendment also replaced the fixed charges coverage ratio covenant, that was due to resume in Q3 2024, with a minimum interest coverage ratio covenant, being the ratio of the last twelve months interest expense to the last twelve months consolidated adjusted EBITDA. This ratio is set at a minimum of 2.50x for Q3 2024, then stepping up to 2.75x for Q4 2024 and Q1 2025, with a further step up to 3.00x from Q2 2025 for the remainder of the term loan. The amendment also gives the Group the option to draw an additional US$45.0m from the existing lender consortium.

The Directors have prepared cash flow forecasts and performed a going concern assessment on a 'base case' covering the period of at least twelve months from the date on which they approved the financial statements. This base case includes assumptions about (i) forecasted revenue based on existing contracts in place at the date of assessment, along with an estimate of future orders, and (ii) forecasted gross margins and operating expenses based on historical trends, ongoing and expected projects, headcount and commitments.

The Directors also considered a severe, but plausible, downside scenario ("stress case") over the forecast period relative to the base case as follows:

- Revenue in Q3 2024 is 10% lower and revenue in Q4 2024 to Q3 2025 is 25% lower. The Directors believe this to be an appropriate revenue forecast reduction to take into account the estimation uncertainty related to the timing of performance of contractual obligations for customer contracts, collections and payments, as well as the tape-out of products.
- In the period from Q4 2024 to the end of Q3 2025 mitigating reductions of 10% in operating expenditure to reflect the lower volume of work and 50% reduction in laboratory and prototyping expenditure.
- The Directors consider further mitigating actions (such as bonus accruals) could be taken if needed, although not required in the downside scenario to maintain covenant compliance for the period from Q3 2024 to the end of Q3 2025.

Under the 'base case' forecast and the downside scenario described above, the analysis demonstrates the Group can continue to maintain sufficient liquidity headroom and expects to comply with the amended debt covenants throughout the going concern assessment period. Following consideration of the Group's liquidity position and prospects for the near term, the Directors are confident that the Group has adequate resources for a period of at least twelve months from the date of approval of the consolidated interim financial statements and have therefore assessed that the going concern basis of accounting is appropriate in preparing the consolidated interim financial statements.

Basis of organisation

The Group's management has performed its evaluation for reporting its reportable segments, if any, and concluded that the Group's business constitutes only one operating segment as all its products and services are of similar nature and focus on customers from the same industry. Its entire revenues, expenses, assets and liabilities pertain to the one business as a whole. This has been ratified by the chief operating decision maker (CODM), Tony Pialis (CEO) who is deemed best placed to evaluate the entity's operating results to assess performance and to allocate resources.

Foreign currency translation

Each entity within the Group has a functional currency, which is normally the currency in which the entity primarily generates and expends cash.

At entity level, a foreign currency is a currency other than the entity's functional currency. Sales, purchases and other transactions denominated in foreign currencies are recorded in the entity's functional currency at the exchange rate ruling at the date of the transaction. Monetary assets and liabilities denominated in foreign currencies are translated at the exchange rate ruling at the end of the reporting period. Currency translation differences arising at entity level are recognised in profit or loss. Non-monetary assets and liabilities denominated in foreign currencies are not retranslated subsequent to initial recognition.

On consolidation, the results of foreign operations are translated into US dollars at the average exchange rate for the reporting period and their assets and liabilities are translated into US dollars at the exchange rate ruling at the end of the reporting period. Currency translation differences arising on consolidation are recognised in other comprehensive income and taken to the currency translation reserve. In the event that a foreign operation is sold, the related cumulative currency translation difference recognised in other comprehensive income is reclassified from equity to profit or loss and is included in calculating the gain or loss on disposal of the foreign operation.

Accounting policies

The accounting policies that have been used in the preparation of these consolidated interim financial statements are the same as those applied in the last annual consolidated financial statements as of 31 December 2023. New standards effective on or after 1 January 2024 have been reviewed and do not have a material effect on the Group's financial statements.

Interim 2023 restatement

The Group has restated the 30 June 2023 comparative financial statements to reflect the following:

- Borrowing costs of US$4.5m should have been capitalised to intangible assets in the six month period ended 30 June 2023. This restatement has resulted in a decrease of US$4.5m in finance expenses and a corresponding increase in intangibles assets at 30 June 2023. Borrowing costs of US$9.5m were correctly capitalised as at 31 December 2023. There is no impact on the tax charge for the six month period ended 30 June 2023~~.~~

  There is no impact on opening retained earnings as at 1 July 2022 or the cash flow statement for the six month period ended 30 June 2023.

  This restatement has resulted in an increase in basic and diluted earnings per share from (1.92) to (1.27) (expressed in cents per ordinary share) for the six month period ended 30 June 2023.

- In addition, US$4.1m of deferred cash rights expense has been reclassified from general and administration expenses to other operating expenses to be presented on the same basis as for the year ended 31 December 2023. In the cash flow statement at 30 June 2023, this non-cash movement was incorrectly included in the change in trade and other payables within cash generated from operations. In the restated cash flow statement, this expense is now presented within cash generated from operations before changes in working capital. There is no impact on opening retained earnings as at 1 July 2022.

3. Critical judgements and key sources of estimation uncertainty

In the application of the Group's and Company's accounting policies, the Directors are required to make judgements (other than those involving estimations) that have a significant impact on the amounts recognised and to make estimates and assumptions about the carrying amounts of assets and liabilities that are not readily apparent from other sources. The estimates and associated assumptions are based on historical experience and other factors that are considered to be relevant. Actual results may differ from these estimates.

The estimates and underlying assumptions are reviewed on an ongoing basis. Revisions to accounting estimates are recognised in the period in which the estimate is revised if the revision affects only that period, or in the period of the revision and future periods if the revision affects both current and future periods. There have been no changes to critical judgements and key sources of estimation uncertainty in the 6 months to 30 June 2024.

4. Revenue

Revenue in the unaudited condensed consolidated statement of income and comprehensive income is analysed as follows:

(US$'000)	**Six months ended 30 June 2024**	**Six months ended 30 June 2023**
Revenue by type:		
IP and NRE	61,393	38,736
IP and NRE – Reseller	318	-
IP and NRE - JV	3,021	34,859
Silicon and Royalties	26,243	113,584
	90,975	**187,179**

'IP and NRE' represents revenues from IP products licensing, along with related support and NRE services, in addition to custom silicon NRE (which can include internal engineering services, our IP and related support, third party IP, tooling costs and prototypes).

'IP and NRE – Reseller' represents revenue from IP products licensing, related support and NRE services provided through VeriSilicon, prior to our arrangements with VeriSilicon being moved under WiseWave by way of the master reseller agreement in late 2021. It also represents revenue from any new contracts signed with VeriSilicon since 1 January 2024, following the expiration of the master reseller agreement in December 2023.

'IP and NRE – JV' represents revenue from our joint venture, WiseWave, and includes revenues recognised under the five-year subscription licence and revenues recognised under the VeriSilicon reseller arrangements which were moved under WiseWave in late 2021. Since 1 January 2024 revenue from any new contracts signed with VeriSilicon are outside of the master reseller agreement and are therefore disclosed in 'IP and NRE – Reseller'.

'Silicon and royalties' represent revenues recognised once our customers are in production and in the case of custom silicon are based on shipments of physical silicon products and, for standalone IP licensing, royalties payable on usage of our IP within silicon products.

Whilst this part of the note shows revenue by type, due to materiality in prior periods, we have separately itemised the revenue from our reseller and joint venture, both based in China. The revenue in H1 2024 from our joint venture in China, WiseWave, predominantly relates to an greement signed at the end of 2023 for technology that was not included in the five-year subscription licence agreement. Revenue recognised against the subscription licence agreement was US$0.1m in H1 2024 and consisted solely of support revenue, whereas the revenue recognised in H1 2023 (US$26.4m) was predominantly based on our deliveries of IP to WiseWave.

(US$'0000)	**Six months ended 30 June 2024**	**Six months ended 30 June 2023**
Revenue by region:		
North America	42,044	55,617
China	18,130	124,058
APAC (ex-China)	24,147	6,464
EMEA	6,654	1,040
	90,975	**187,179**

Where goods are delivered electronically, for example IP, the above revenue by region analysis is determined by classifying customers based on their main base of operations. Where goods are delivered physically, customers are classified based on the delivery location.

US$64.8m (71% of total revenues) (H1 2023: US$46.4m, 25%) represent revenues recognised over time. Of the US$64.8m revenue recognised over time, US$44.1m is subject to estimation uncertainty. US$9.4m of contract assets and US$53.8m of contract liabilities are also subject to estimation uncertainty. These revenues require management judgements and estimates of project hours or costs that are used in percentage of completion calculations. These revenues relate to work done during the design phase of a customer project and include (with the exception of a limited amount of revenue relating to our soft IP) IP product licensing fees, together with related support and NRE, as well as custom silicon NRE fees. We have applied a sensitivity to revenues recognised over time in 2024 which are subject to estimates. If our estimates of total hours or total costs had been 10% higher, these revenues would be US$39.7m, contract assets would be US$8.5m and contract liabilities would be US$59.2m. If our estimates of total hours or total costs had been 10% lower, these revenues would be US$48.5m, contract assets would be US$10.3m and contract liabilities would be US$48.4m.

US$26.2m (29% of total revenues) (H1 2023: US$140.8m, 75%) are recognised at a point in time. These revenues are based on silicon shipments once our customers are in production. In the case of custom silicon, this represents revenues from shipments of physical silicon products, and for standalone IP licensing, royalties payable on usage of our IP within silicon products.

WiseWave – subscription licence agreement

Revenue recognition for the WiseWave subscription licence agreement is determined with reference to the estimated total number of IP uploads to be delivered to WiseWave during the term of the agreement and the number of uploads made to WiseWave each period. There is only support and maintenance revenue left to be recognised on the subscription licence agreement as all the revenue related to IP uploads was recognised before the end of 2023.

Please see the 'Financial Highlights' section on page 7 for further information on revenue.

Below is a reconciliation of the movement in contract assets during the period:

(US$'000)	**Six months ended 30 June 2024**
At 1 January 2024	65,173
Revenue accrued in the period	14,803
Accrued revenue invoiced in the period	(26,110)
Expected credit loss	900
At 30 June 2024	**54,766**

Below is a reconciliation of the movement in contract liabilities, excluding the flexible spending account, during the period:

(US$'000)	**Six months ended 30 June 2024**
At 1 January 2024	50,106
Revenue recognised in the period	(33,023)
Revenue deferred in the period	52,440
At 30 June 2024	**69,523**

The contract liabilities balance is all expected to be satisfied within 12 months of the balance sheet date. There has been an increase in the contract liabilities balance since the end of December 2023 due to an increase in NRE invoicing and cash received towards the end of Q2 2024 where the revenue is expected to be recognised in Q3 and Q4 2024.

The flexible spending account, which is included within contract liabilities on the balance sheet, has increased to US$18.8m at the end of June 2024 from US$5.9m at the end of December 2023. The increase was driven by a US$12.9m of invoices raised in H1 2024 against two FSA agreements. These are contracts with customers who have committed to regular periodic payments to us over the term of the contract. These payments are not in respect of specific licences or other deliverables, but they can be used as credit against future deliverables.

The balances related to costs to obtain contracts from customers are as follows:

(US$'000)	As at 30 June 2024	As at 31 December 2023
Capitalised contract costs	**2,645**	**1,920**

The costs to obtain contracts from customers include commissions. Amortisation of US$1.1m (H1 2023: US$0.5m) was charged to the consolidated statement of comprehensive income in the period.

5. Other operating expense

Other operating expense items were as follows:

(US$'000)	Six months ended 30 June 2024	Six months ended 30 June 2023
Acquisition-related costs/(credit)	6,459	(263)
Compensation element of Banias Labs deferred cash rights	3,788	4,069
Share-based compensation expense	10,743	18,502
Currency translation gain	(1,354)	(592)
Total other operating expenses	**19,636**	**21,716**

The increase in acquisition related costs from H1 2023 to H1 2024 was primarily due to the release of an escrow payment of US$6.2m made per the terms of our acquisition of Precise-ITC that became due in H1 2024. This payment is a compensatory expense for financial reporting purposes per the guidance included in IFRS 3 Business Combinations but is included in other operating expense due to it being economically connected to a business acquisition.

6. Employee costs excluding Directors and key management personnel

(US$'000)	Six months ended 30 June 2024	Six months ended 30 June 2023
Wages, salaries and benefits	51,068	39,508
Defined contribution pension costs	2,643	2,439
Social security costs	2,553	1,533
Share-based payments (all employees)	8,437	16,166
Investment tax credit	(4,811)	(1,500)
Total employee costs	**59,890**	**58,146**

The average number of employees during the period, analysed by category, was as follows:

	Six months ended 30 June 2024	Six months ended 30 June 2023
R&D/engineering	770	651
General & administration	63	59
Sales & marketing	34	20
Total employees (average)	**867**	**730**

The number of employees at the end of each period, analysed by category, was as follows:

	Six months ended 30 June 2024	Six months ended 30 June 2023
R&D/engineering	794	662
General & administration	69	60

Sales & marketing	33	22
Total employees (end of period)	**896**	**744**

7. Directors and key management personnel compensation

(US$'000)	**Six months ended 30 June 2024**	**Six months ended 30 June 2023**
Directors and key management emoluments	4,400	2,844
Pension costs	89	67
Total Directors and key management remuneration	**4,489**	**2,911**

8. Finance income and expense

(US$'000)	**Six months ended 30 June 2024**	**Restated[1] six months ended 30 June 2023**
Finance income		
Interest income from contracts with customers containing significant financing components	136	149
Other Interest	35	52
Interest income from bank	1,602	1,518
	1,773	**1,719**
Finance expense		
Bank charges	(46)	(43)
Lease interest	(605)	(552)
Term loan interest	(9,093)	(6,886)
Term loan capitalised to the balance sheet	6,371	4,537
Israel innovation interest	-	(84)
	(3,373)	**(3,028)**
Net finance (expense)/income	**(1,600)**	**(1,309)**

1. See note 2 'Interim 2023 restatement' paragraph

9. Investments

WiseWave joint venture:

As at 30 June 2024, the Group held a 42.5% ownership interest in WiseWave Technology Co., LTD ('WiseWave'), a supplier of semiconductor devices based in China. WiseWave's registered office is at Room 105, No. 6, Baohua Road, Hengqin New District, Zhuhai, China.

(US$'000)	**Six months ended 30 June 2024**	**Six months ended 30 June 2023**
Share of loss	-	8,169
Effect of elimination of gains from sales to the joint venture	-	(5,439)
	-	**2,730**

The value of the investment in WiseWave was reduced to US$nil in 2022, as a result of equity accounting for losses at WiseWave during the period. The value of the cumulative losses incurred by WiseWave exceeds the cumulative value of our investment in the business, hence there is no elimination of gains from the sales to WiseWave in the six months to 30 June 2024 as the value of the investment was already reduced to US$nil at 31 December 2023 and therefore no provision has been recognised for the excess of the Group's share of WiseWave's losses through end of H1 2024 over the carrying amount of the investment of US$8.6m, on the basis that the Group does not have a constructive obligation.

10. Income tax expense

During the six months ended 30 June 2024, the Group recorded a consolidated tax credit of US$10.0m (H1 2023: US$2.3m expense), which represented effective tax rates of 20% and 20%, respectively.

Income tax expense has been recognised based on management's estimate of the annual actual income tax rate for the financial period applied to the reported profits before tax of the interim reporting period for each entity in the consolidated Group

11. Earnings per share

Basic earnings per share is calculated by dividing net income from operations by the weighted average number of common shares outstanding during the period.

Diluted earnings per share is calculated by adjusting the weighted average number of common shares outstanding during the period to assume conversion of all potential dilutive share options and restricted share units to common shares.

(US$'000 except shares)	**Six months ended 30 June 2024**	**Restated[1] six months ended 30 June 2023**
Numerator:		
Net (loss)/income from operations	(39,961)	(8,894)
Denominator:		
Weighted average number of common shares outstanding for basic EPS	728,559,101	700,766,190
Weighted average number of common shares outstanding for diluted EPS	**728,559,101**	**700,766,190**
Basic EPS (US$ cents)	**(5.48)**	**(1.27)**
Diluted EPS (US$ cents)	**(5.48)**	**(1.27)**

1. See note 2 'Interim 2023 restatement' paragraph

Basic loss per share in the six months to 30 June 2024 and diluted loss per share in the six months to 30 June 2024 are the same because the share options and RSUs are anti-dilutive. Therefore, they have been excluded from the calculation of diluted weighted average number of ordinary shares.

12. Goodwill

Goodwill is tested for impairment annually and whenever there is an indication that it may be impaired, at the level of the cash-generating unit (CGU) or group of CGUs to which it is allocated. Our business model is such that our IP is leveraged across the channels through which we provide our products and services to customers, i.e. IP licensing, custom silicon and own products. Given this interdependence of the Group's operations, management considers that the Group constitutes only one CGU because there is no asset or group of assets within the business that generates cash inflows that are largely independent of cash inflows generated by other assets or groups of assets. Goodwill was tested for impairment at Group level at the end of 2023 by comparing the Group's recoverable amount, determined from its fair value less costs of disposal, against its carrying amount. In 2023, the Group's fair value less costs of disposal was higher than its carrying amount and therefore no impairment of goodwill was required. In H1 2024, we assessed whether there were any indications that goodwill may be impaired and concluded that there are none. Specifically, we do not expect the Group's consolidated net loss incurred in H1 2024 to be indicative of a permanent reduction in the Group's ability to generate cash flows.

13. Other intangible assets

(US$'000)	**Six months ended 30 June 2024**
At 1 January 2024	203,314
Additions	41,203
Amortisation	(7,150)
At 30 June 2024	**237,367**

The identifiable intangible asset from the acquisition of Precise-ITC in 2022 was valued at US$7.8m, against which amortisation of US$1.0m was recorded in H1 2024 (H1 2023: US$1.0m).

The identifiable intangible assets from the acquisition of OpenFive in 2022 were valued at US$61.0m, against which amortisation of US$5.4m was recorded in H1 2024 (H1 2023: US$5.3m).

The identifiable intangible asset from the acquisition of Banias Labs in 2022 was valued at US$83.9m. No amortisation is recorded as the intangible asset is not yet available for use.

The US$41.2m of additions includes US$1.0m paid to a third-party IP provider and US$6.4m of capitalised borrowing costs. The remaining US$33.8m is capitalised development expenditure comprising primarily of staff costs where staff have worked on projects that are capitalisable under the Group's research and development capital expenditure policy.

The Group incurred research and development costs, net of a SRED credit of US$4.8m, that have been expensed in the consolidated statement of comprehensive income, due to not meeting the criteria for capitalisation. The amounts expensed through salaries, subscriptions, subcontracting, depreciation of right-of-use assets, equipment rentals, and prototypes which relate to research and development are as follows:

(US$'000)	**Six months ended 30 June 2024**	**Six months ended 30 June 2023**
Research and development	39,378	35,464

14. Property and equipment - owned

The value of property and equipment has increased by US$17.3m from US$20.7m at 31 December 2023 to US$38.0m at the end of June 2024. The increase is mainly due to a US$14.6m mask set for our own products purchased in Alphawave IP, Inc., which was not yet available for use as at 30 June 2024.

15. Cash and cash equivalents

(US$'000)	**As at 30 June 2024**	**As at 31 December 2023**
Cash at bank and in hand	76,307	101,291

Please see the 'Financial Highlights' section on page 8 for further information on cash, including the decrease in cash as at 30 June 2024 compared to 31 December 2023.

16. Trade and other receivables

(US$'000)	**As at 30 June 2024**	**As at 31 December 2023**
Current:		
Trade receivables from contracts with customers	51,601	49,214
Less: Allowance for expected credit losses	(5,858)	(5,635)
Trade receivables – net	**45,743**	**43,579**
Restricted cash	7,342	17,843
Other receivables	7,808	16,667
Total current	**60,893**	**78,089**
Non-current:		
Restricted cash	3,514	6,392
Other receivables	1,581	-
Trade non-current	**5,095**	**6,392**
Total trade and other receivables	**65,988**	**84,481**

Current trade and other receivables have decreased from US$78.1m on 31 December 2023 to US$60.9m on 30 June 2024. Other receivables have decreased from US$16.7m on 31 December 2023 to US$7.8m on 30 June 2024 predominantly due to the receipt of US$12.4m relating to the OpenFive purchase price adjustment. Total restricted cash reduced by US$13.4m due to deferred compensation payments made to employees from acquired entities. Of this US$10.5m reduction, US$7.2m relates to a reduction in amounts held by third-party paying agents in respect of future compensation amounts payable to employees of Banias Labs being settled in the first half of 2024. The remaining US$6.2m was deferred compensation that was paid to one of the vendors of Precise-ITC. The payments associated with Precise-ITC and Banias Labs deferred cash are presented within operating activities in the condensed consolidated statement of cash flows. The reduction of the deferred cash asset from these transactions is included in working capital in the condensed consolidated statement of cash flows.

Non-current trade receivables have decreased from US$6.4m on 31 December 2023 to US$5.1m on 30 June 2024 due to a decrease in the non-current deferred cash balance in line with vesting dates.

17. Other assets

(US$'000)	**As at 30 June 2024**	**As at 31 December 2023**
Current:		
Prepayments	7,215	17,094
Capitalised contract costs	2,645	1,923
Total other assets	**9,860**	**19,017**

Prepayments have decreased by US$9.9m due primarily to recognition of prepaid expenses in the first six months of 2024 in line with the terms of the contracts relating to prepayments.

18. Trade and other payables

Current trade and other payables have increased from US$69.3m on 31 December 2023 to US$72.2m on 30 June 2024. Other payables increased by US$6.8m predominantly due to higher vesting of RSUs in 2024 due to the headcount increase from 2022 and 2023 and the bonus RSUs that were issued in the first half of 2024 relating to 2023 performance.

19. Loans and borrowings

The Group's sources of borrowing for liquidity purposes include the Credit Agreement dated 12 October 2022 and the Incremental Facility Amendment dated 3 November 2022. These comprise a US dollar-denominated Delayed Draw Term Loan B ('Term Loan') of US$100.0m and a multi-currency revolving credit facility ('RCF') of up to US$125.0m, provided by a syndicate of banks.

Both the Term Loan and the RCF have a term of five years. The Term Loan and US$110.0m of the RCF were drawn in full in October 2022 in connection with the Group's acquisition of Banias Labs. US$15.0m of the RCF was drawn down on 15 May 2023. Both the Term Loan and RCF bear interest at a floating rate of interest linked to SOFR (secured overnight financing rate), with the overall rate dependent on our total net leverage ratio, defined as the ratio of our consolidated total debt outstanding to our consolidated adjusted EBITDA.

Our borrowings under the Credit Agreement and Incremental Facility Amendment are subject to a net leverage ratio and a fixed charges coverage ratio which are defined in the Credit Agreement and tested quarterly. The maximum permissible net leverage ratio was 3.75x up to the period ending 30 June 2023, 3.5x up to the period ending 31 March 2024 and 3.0x thereafter and is calculated by dividing total consolidated debt outstanding by total consolidated adjusted EBITDA for the last twelve months. The minimum fixed charges coverage ratio is 1.25x over the term of the debt and is calculated by dividing total consolidated cash flow for the last twelve months by total fixed charges for the last twelve months.

The Group did not meet the minimum fixed charges coverage ratio of 1.25x in the second quarter of 2023, which represented a breach of the bank covenant as at 30 June 2023. As such, the Term Loan and the RCF are payable on demand at 30 June 2023 and have been classified as current liabilities in the consolidated statement of financial position. On 22 September 2023, the Group signed an amendment to the credit agreement with the lenders waiving the covenant for the period to 30 June 2024, with a revised lower fixed charge coverage ratio covenant in effect from 30 September 2024 to 30 September 2025. Additionally, there is a minimum liquidity requirement that the Group must maintain for the period to 30 September 2025.

During the second quarter of 2024, the Group's net leverage ratio (NLR) was above the maximum allowed ratio of 3.00x, principally as a result of low adjusted EBITDA in Q3 2023 and H1 2024, combined with a step-down in the ratio from 3.50x to 3.00x. The lower than anticipated adjusted EBITDA in H1 2024 was driven by the time lag in converting new bookings to recognised revenue, particularly in high-value IP and ASIC NRE contracts that were signed in the second half of 2023.

Discussions with the Group's lenders commenced in Q2 2024 to ensure that recording a NLR above the allowed maximum would not be treated as a breach of the covenant. These discussions culminated in the Fourth Amendment and Waiver to the Credit Agreement, which was signed on 19 July 2024. Under the terms of the Fourth Amendment, the maximum permitted NLR is increased to 4.50x for the second quarter of 2024. From Q3 2024, the net leverage ratio covenant is amended to measure net secured leverage, with a maximum permissible ratio of 3.00x for the remainder of the term of the loan. In addition to the above changes, the Fourth Amendment and Waiver also replaced the fixed charges coverage ratio covenant, that was due to resume in Q3 2024, with a minimum interest coverage ratio covenant, being the ratio of the last twelve months interest expense to the last twelve months consolidated adjusted EBITDA. This ratio is set at a minimum of 2.50x for Q3 2024, then stepping up to 2.75x for Q4 2024 and Q1 2025, with a further step up to 3.00x from Q2 2025 for the remainder of the term loan. The Fourth Amendment and Waiver also gives us the option to draw an additional US$45.0m from our existing lender consortium.

As the Fourth Amendment and Waiver was signed after the balance sheet date, the Term Loan and the RCF were technically payable on demand as at 30 June 2024 and were therefore classified as current liabilities in our H1 2024 balance sheet. This has had the effect of making our current liabilities greater than our current assets by US$147.6m.

20. Share capital

	Number of shares	US$ '000
Balance as at 31 December 2022	**695,068,200**	**9,751**
Shares issued under employee share scheme	20,446,367	260
Balance as at 31 December 2023	**715,514,567**	**10,011**
Shares issued under employee share scheme	20,098,870	248
Balance as at 30 June 2024	**735,613,437**	**10,259**

21. Share- based payments

	As at 30 June 2024		As at 30 June 2023	
	Share awards	Weighted average exercise price (US$)	Shareawards	Weighted average exercise price (US$)
Outstanding at the beginning of the period	86,263,963	0.834	85,692,153	0.712
Exercised during the period	(20,098,870)	1.149	(10,496,008)	0.697
Forfeited during the period	(1,510,305)	1.189	(468,557)	1.658
Granted during the period	21,798,539	1.522	8,453,347	1.166
Outstanding at the end of the period	**86,453,327**	**0.934**	**83,180,935**	**0.724**
Exercisable at the end of the period	**40,671,675**	**0.228**	**42,554,503**	**0.266**

25% of awards granted vest on the first anniversary of issuance and the remaining awards vest equally each month over the following 36 months. Awards expire within ten years of their issue under the terms of the option agreements. This has moved to ten years from five years following approval from the remuneration committee on 21 March 2024.

On 25 June 2024, at the Company AGM, the shareholders approved the Company granting 1,165,968 shares under the terms of the LTIP to Tony Pialis in respect of the financial year ending 31 December 2024. The performance metrics and weightings are:

- Relative TSR vs constituents of the FTSE 250 – 35% weighting
- Relative TSR vs constituents of the FTSE All-World Technology – 35% weighting
- Adjusted EPS growth – 30% weighting.

No expense has been recorded in the financial statements to 30 June 2024 as the amount is not material.

22. Related party transactions

During the period, Group companies entered into the following transactions with related parties who are not members of the Group

	As at and for the period ended		
(US$'000)	30 June 2024	31 December 2023	30 June 2023
Transactions:			
Revenue from a company on which a Director is the chairman of the board[1]	33	429	242
Revenue from VeriSilicon	318	-	-

Revenue from WiseWave, a joint venture, where there is common directorship	3,021	66,879	34,859
Cost of sales from a company on which a Director is the chief financial officer[2]		-	-
Cost of sales from a company on which a Director is the chief financial officer	(1,031)	-	-
Operating expenses from a company on which a Director is a director	(100)	(133)	-
Costs capitalised as intangible assets from a company on which a Director is a director	(1,000)	(1,000)	(600)
	1,241	**66,175**	**34,501**
Balances:			
Accounts receivable from a company on which a Director is the chairman of the board[1]	200	1,650	350
Accounts receivable from VeriSilicon	893	-	-
Accounts receivable from WiseWave, a joint venture, where there is common directorship	20,569	6,364	15,060
Contract assets for a company on which a Director is the chairman of the board[1]	5,300	2,567	5,217
Contract assets from VeriSilicon	-	-	812
Contract assets from WiseWave, a joint venture, where there is common directorship	31,925	40,785	36,579
Accrued liabilities with a company on which a Director is a director	(1,100)	(600)	-
	57,787	**50,766**	**58,018**
Contract liabilities from a company on which a Director is the chairman of the board[1]	-		88
Contract liabilities from VeriSilicon	575	-	-
Contract liabilities from WiseWave, a joint venture, where there is common directorship	2,796	-	342
Prepaid expenses with a company on which a director is a director	(167)	(67)	-
	3,204	**(67)**	**430**

– Companies on which a Director is the chairman of the board are FLC Technology Group and DreamBig Semiconductor Inc.

– Director ceased to be chief financial officer of this company in February 2024.

Sales to related parties are made at market prices and in the ordinary course of business. Outstanding balances are unsecured and settlement occurs in cash. Any estimated credit losses on amounts owed by related parties would not be material and are therefore not disclosed. This assessment is undertaken at each key reporting period through examining the financial position of the related party and the market in which the related party operates.

In the interests of transparency, we have opted to disclose VeriSilicon as a related party within this note. All revenue and associated balances in respect of transactions signed with VeriSilicon since the VeriSilicon reseller agreement moving under WiseWave as master reseller effective November 2021 are recognised through the WiseWave joint venture line. Since 1 January 2024 any new deals signed with VeriSilicon are outside of the master reseller agreement and are therefore disclosed on a separate VeriSilicon line.

23. Subsidiaries of the Group as at 30 June 2024

All subsidiaries have been included in the consolidated financial statements using the equity method. Details of the Group's subsidiaries as at 30 June 2024 are as follows:

Name	Registered address	Country
Subsidiaries		
Alphawave IP Inc.	70 University Ave, 10th Floor, Toronto, Ontario, Canada M5J 2M4	Canada

Alphawave Semi US Corp. *(formerly Alphawave IP Corp.)*	1730 N 1st St, Suite 650, San Jose, CA, 95112	United States (Delaware)
Alphawave IP (BVI) Ltd.[1]	Trinity Chambers, PO Box 4301, Road Town, Tortola	British Virgin Islands
Alphawave Call. Inc. [1,2]	70 University Ave, 10th Floor, Toronto, Ontario, Canada M5J 2M4	Canada
Alphawave Exchange Inc.	70 University Ave, 10th Floor, Toronto, Ontario, Canada M5J 2M4	Canada
Alphawave IP Limited[1]	21 Avenida da Praia Grande, No 409, Edificio China Law, 21 andar, em, Macau	China
Precise-ITC, Inc.	170 University Avenue, 10th Floor, Toronto, Ontario, M5H 3B3	Canada
AWIPInsure Limited[1]	1st Floor, Limegrove Centre, Holetown, St. James	Barbados
Alphawave Semi International Corp. *(formerly Alphawave Holdings Corp.)* [1]	1730 N 1st St, Suite 650, San Jose, CA, 95112	United States (Delaware)
Alphawave Semi, Inc. *(formerly Open-Silicon, Inc)*	490 N McCarthy Blvd #220, Milpitas, CA 9503	United States (Delaware)
Alphawave Semiconductor Corp.	1730 N 1st St, Suite 650, San Jose, CA, 95112	United States (Delaware)
Alphawave Semi Holding Corp. *(formerly Open-Silicon Holding Corp.)*	3rd Floor, Les Cascades, Edith Cavell Street, Port Louis	Mauritius
Open-Silicon Development Corp. [2]	490 N McCarthy Blvd #220, Milpitas, CA 95035	United States (Delaware)
Open-Silicon International, Inc. [2]	490 N McCarthy Blvd #220, Milpitas, CA 95035	United States (Delaware)
Open-Silicon Japan[2]	c/o Akia Tax Consultants, Shoei Kannai Building, 22, Sumiyoshicho 2-chrome, Naka-ku, Yokohama, Kanagawa	Japan
Awave Semiconductor India Pvt Ltd *(formerly Open-Silicon Research Private Ltd)*	No. 11/1 & 12/1 Maruthi Infotech Centre, 2nd Floor, B-Block, Indiranagar, Koramangala Intermediate Ring Road, Bangalore – 560 071.	India
Alphawave Semi (Nanjing) Co. Ltd *(formerly Yuanfang Silicon Technology (Nanjing) Co. Ltd)*	Room 101, Building B, No. 300, Zhihui Road, Qilin Science and Technology Innovation Park, Jiangning District, Nanjing	China
Alphawave Semi Asia Co. Ltd	Room 702-703, Building 8, Lane 777, Gaoke East Road, Pudong New Area, Shanghai	China
Solanium Labs Ltd[1]	24 Hanagar, Hod HaSharon 4527713	Israel
Joint Venture		
WiseWave Technology Co., LTD[3]	Room 105, No. 6, Baohua Road, Hengqin New District, Zhuhai	China

All subsidiaries are wholly owned.

1. Owned directly by Alphawave IP Group plc.
2. Dormant
3. Joint venture in which the Group has a 42.5% ownership interest and voting rights.

24. Post balance sheet events

The Group and its lenders signed Fourth Amendment and Waiver to the Credit Agreement on 19 July 2024. Please see note 19 for more details.

On 26 August 2024, Wise Road Huazhi (Zhuhai) Equity Investment Partnership (Limited Partnership) ("WRC") and certain affiliates of WRC agreed to an amendment to the shareholders agreement between WiseWave's investors. This amendment:

- allowed WRC and its affiliates to make a capital contribution in WiseWave, which was subsequently completed on 6 September 2024. The Group did not contribute any incremental investment in this round, which resulted in the reduction of the Group's equity interest in WiseWave from 42.5% to 35.2%.
- granted WRC a call option to purchase all of our equity interest at a pre-determined varying exercise prices on or before 31 December 2027. The exercise prices in each instance are higher than the per share cost of our original investment in WiseWave.

Alternative Performance Measures (APMs)

Introduction

Management uses a number of measures to assess the Group's financial performance. We consider certain of these measures to be particularly important and identify them as 'key performance indicators' (KPIs). We have identified the following financial measures as KPIs: revenue; bookings; backlog (excluding royalties); adjusted EBITDA; and cash generated from operations.

Certain of these measures are non-IFRS measures because they exclude amounts that are included in, or include amounts that are excluded from, the most-directly comparable measure calculated and presented in accordance with IFRS or are calculated using financial measures that are not calculated in accordance with IFRS. We do not regard non-IFRS measures as a substitute for, or superior to, the equivalent IFRS measures. Non-IFRS measures presented by Alphawave may not be directly comparable with similarly titled measures presented by other companies.

Bookings and backlog

Management monitors bookings and backlog as indicators of future revenue from contracts with customers.

Bookings

Bookings is a non-IFRS measure and represents legally binding and largely non-cancellable commitments by customers. Bookings comprise licence fees, non-recurring engineering support, orders for silicon products, financing components and estimated future royalties (based on contractually committed royalty prepayments or on volume estimates provided by customers). Bookings are recorded at the point the contract has been signed by both Alphawave and the customer. These are released to the market each quarter within our quarterly trading update. Infrequently, customers request to cancel bookings. At the time of cancellation, these are recorded as debookings after taking into account any pertinent cancellation charges. Bookings during the year were as follows:

	Six months ended 30 June 2024 US$m	Six months ended 30 June 2023 US$m
Preliminary bookings (including royalties)	225.3	187.2
Bookings	225.3	187.2
Royalties	-	-
Bookings (excluding royalties)	**225.3**	**187.2**

Backlog

Backlog is a non-IFRS measure that represents cumulative bookings (excluding royalties) that have not yet been recognised as revenue and which we expect to be recognised in future periods.

Backlog at the end of the year is calculated based on our backlog as at the beginning of the year, plus new bookings during the year and backlog acquired in business combinations, less revenue recognised during the year.

Movements on backlog during the year were as follows:

	Six months ended 30 June 2024 US$m	Year ended 31 December 2023 US$m
Backlog at the beginning of the year	354.9	379.7
Add: Bookings during the year (excluding royalties)	225.3	383.9
Less: Net adjustments/debookings during the year (excluding royalties)	(2.9)	(87.3)
Less: Revenue recognised during the year (excluding royalties)	(90.9)	(321.4)
Backlog (end of the period)	**486.4**	**354.9**

Earnings before interest, taxation, depreciation and amortisation (EBITDA)

Earnings before interest, taxation, depreciation and amortisation (EBITDA) is a non-IFRS measure that we consider is useful to investors and other users of our financial information in evaluating the sensitivity of the Group's trading performance to changes in variable operating expenses.

Joint venture profit or loss

We also exclude the costs of our joint venture in WiseWave from EBITDA because we consider that, as a start-up, they hinder the comparison of the Group's trading performance from one period to another or with other businesses.

Operating profit to EBITDA reconciliation

(US$'000)	**Six months ended 30 June 2024**	**Six months ended 30 June 2023**
Operating (loss)/profit	(48,314)	(2,580)
Add backs:		
Depreciation and amortisation	16,850	13,307
EBITDA	**(31,464)**	**10,727**

Adjusted measures of profitability

We report adjusted measures of profitability because we believe that they provide both management and investors with useful additional information about the financial performance of our business. Adjusted measures of profitability are non-IFRS measures that represent the equivalent IFRS measures adjusted for specific items that we consider hinder comparison of the Group's financial performance from one period to another or with other businesses. Adjusted measures of profitability exclude items that can have a significant effect on profit or loss. We compensate for this limitation by monitoring separately the items that are excluded from the equivalent IFRS measures in calculating the adjusted measures. We outline below the specific items of income and expenses that are recognised in profit or loss in accordance with IFRS but are excluded from the Group's adjusted results.

EBITDA to adjusted EBITDA reconciliation

(US$'000)	**Six months ended 30 June 2024**	**Six months ended 30 June 2023**
EBITDA	(31,464)	10,727
Add backs:		
Acquisition related costs/(income)	6,459	(263)
Compensation element of Banias Labs deferred cash rights	3,788	4,069
Share-based compensation expense	10,743	18,502
Currency translation gain	(1,354)	(592)
Adjusted EBITDA	**(11,828)**	**32,443**

Business combinations

We exclude those effects of applying the acquisition method of accounting under IFRS that we consider are not indicative of the Group's trading performance, including the accounting for transaction costs; the recognition of certain elements of the purchase price as compensation expense; and the recognition of remeasurements of contingent consideration in profit or loss.

During the periods under review, we excluded from our adjusted results the following items arising from the accounting for business combinations:

> acquisition-related costs;

> the element of the value of the deferred cash rights granted to employees of Banias Labs to replace the unvested employee share awards at the acquisition date that is accounted for as compensation expense rather than as consideration;

> the remeasurement of the contingent consideration payable for Precise-ITC; and

> the purchase price adjustment receivable from the vendor of Open Silicon that was recognised as other operating income rather than as an adjustment to the purchase price because it was agreed after the end of the measurement period.

We also exclude from our adjusted measures the amortisation of identifiable intangible assets acquired in business combinations in order that the performance of our business may be compared more fairly with that of businesses that have developed on an organic basis.

We exclude the costs of integrating acquired businesses because we consider that they hinder the comparison of the Group's trading performance from one period to another or with other businesses.

Share-based payments and related expenses

We exclude the compensation expense recognised in relation to options and RSUs granted under the Company's share-based payment plans because the awards are equity-settled and their effect on shareholders' returns is already reflected in diluted earnings per share measures. We additionally exclude the expense for payroll taxes payable on the exercise or vesting of the awards because the expense fluctuates according to the Company's share price at the exercise or vesting date and the effect on profit or loss is therefore not necessarily indicative of the Group's trading performance.

Currency translation differences

We exclude gains and losses that arise at entity level on the translation of foreign currency-denominated net cash and borrowings into the entity's functional currency. Such gains and losses can be significant and are not representative of the Group's trading performance.

Income tax effect of adjustments

Where relevant, we calculate the income tax effect of adjustments by considering the specific tax treatment of each item and by applying the relevant statutory tax rate to those items that are taxable or deductible for tax purposes

Profit after tax to adjusted profit after tax reconciliation

(US$'000)	**Six months ended 30 June 2024**	**Restated[1] six months ended 30 June 2023**
Profit after tax	(39,961)	(8,894)
Add backs:		
Acquisition-related costs	6,459	(263)
Compensation element of Banias Labs deferred cash rights	3,788	4,069
Amortisation of acquired intangibles	6,328	6,328
Share-based compensation expense	10,743	18,502
Currency translation gain	(1,354)	(592)
Tax effect of above adjustments	533	823
Adjusted profit after tax	**(13,464)**	**19,973**

Adjusted profit per ordinary share attributable to the shareholders (expressed in cents per ordinary share)

	Note	Six months ended 30 June 2024	Restated[1] six months ended 30 June 2023
Adjusted basic earnings per share	11	(1.85)	2.85
Adjusted diluted earnings per share	11	(1.85)	2.85

1. See note 2 'Interim 2023 restatement' paragraph

Adjusted basic and diluted earnings per share have been calculated by taking the adjusted profit for the year and dividing it by the basic or diluted, as appropriate, weighted average number of common shares outstanding. Adjusted basic earnings per share and adjusted diluted earnings per share are the same for the six months ended 30 June 2024 because the share options and RSUs are anti-dilutive. Therefore, they have been excluded from the calculation of diluted weighted average number of ordinary shares.

Net (debt)/cash

Net (debt)/cash is defined as the difference between total borrowings and cash and cash equivalents. It is a measure that provides additional information on the Group's financial position. Restricted cash, which cannot be accessed by the Group, has been excluded from the net debt measure.

The net debt of US$141.6m as at 30 June 2024 is made up of the bank loan of US$216.3m, the IIA loan in Israel of US$1.6m less the cash and cash equivalents balance of US$76.3m.

INDEPENDENT REVIEW REPORT TO Alphawave IP Group PLC

Conclusion

We have been engaged by Alphawave IP Group PLC ("the Company") to review the condensed set of financial statements in the half-yearly financial report for the six months ended 30 June 2024 which comprises condensed consolidated statement of comprehensive income, condensed consolidated statement of financial position, condensed consolidated statement of changes in equity, consolidated statement of cash flows and the related explanatory notes.

Based on our review, nothing has come to our attention that causes us to believe that the condensed set of financial statements in the half-yearly financial report for the six months ended 30 June 2024 is not prepared, in all material respects, in accordance with IAS 34 *Interim Financial Reporting* as adopted for use in the UK and the Disclosure Guidance and Transparency Rules ("the DTR") of the UK's Financial Conduct Authority ("the UK FCA").

Basis for conclusion

We conducted our review in accordance with International Standard on Review Engagements (UK) 2410 *Review of Interim Financial Information Performed by the Independent Auditor of the Entity* ("ISRE (UK) 2410") issued for use in the UK. A review of interim financial information consists of making enquiries, primarily of persons responsible for financial and accounting matters, and applying analytical and other review procedures. We read the other information contained in the half-yearly financial report and consider whether it contains any apparent misstatements or material inconsistencies with the information in the condensed set of financial statements.

A review is substantially less in scope than an audit conducted in accordance with International Standards on Auditing (UK) 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.

Conclusions relating to going concern

Based on our review procedures, which are less extensive than those performed in an audit as described in the Basis for conclusion section of this report, nothing has come to our attention that causes us to believe that the directors have inappropriately adopted the going concern basis of accounting, or that the directors have identified material uncertainties relating to going concern that have not been appropriately disclosed.

This conclusion is based on the review procedures performed in accordance with ISRE (UK) 2410. However, future events or conditions may cause the Group to cease to continue as a going concern, and the above conclusions are not a guarantee that the Group will continue in operation.

Directors' responsibilities

The half-yearly financial report is the responsibility of, and has been approved by, the directors. The directors are responsible for preparing the half-yearly financial report in accordance with the DTR of the UK FCA.

As disclosed in note 2, the annual financial statements of the Group are prepared in accordance with UK-adopted international accounting standards.

The directors are responsible for preparing the condensed set of financial statements included in the half-yearly financial report in accordance with IAS 34 as adopted for use in the UK.

In preparing the condensed set of financial statements, the directors are responsible for assessing the group's ability to continue as a going concern, disclosing, as applicable, matters related to going concern and using the going concern basis of accounting unless the directors either intend to liquidate the group or to cease operations, or have no realistic alternative but to do so.

Our responsibility

Our responsibility is to express to the Company a conclusion on the condensed set of financial statements in the half-yearly financial report based on our review. Our conclusion, including our conclusions relating to going concern, are based on procedures that are less extensive than audit procedures, as described in the Basis for conclusion section of this report.

The purpose of our review work and to whom we owe our responsibilities

This report is made solely to the Company in accordance with the terms of our engagement to assist the Company in meeting the requirements of the DTR of the UK FCA. Our review has been undertaken so that we might state to the Company those matters we are required to state to it in this report and for no other purpose. To the fullest extent permitted by law, we do not accept or assume responsibility to anyone other than the Company for our review work, for this report, or for the conclusions we have reached.

Andrew Campbell-Orde
for and on behalf of KPMG LLP
Chartered Accountants
15 Canada Square, London, E14 5GL
20/09/2024