

Leading connectivity technology
for AI and digital infrastructure

Alphawave IP Group plc

Annual report and financial statements 2023

Who we are

Alphawave Semi is a leading semiconductor company specialising in high-speed wired connectivity and compute technologies that enable data to travel faster, more reliably and using lower power.

We develop leading-edge, high-speed connectivity solutions that are a critical part of the core infrastructure enabling next generation services in data centres, artificial intelligence, data networking, data storage, 5G infrastructure and autonomous vehicles.

Alphawave Semi operates with over 800 employees globally and has R&D centres in Canada, India, the US and Israel. Our technology focus, combined with our entrepreneurial and inclusive culture, has driven us to the forefront of connectivity technology.

Our offices



Highlights

Financial

Revenue and revenue growth

US\$321.7m^{+74%}

FY 2022: US\$185.4m +106%

Operating (loss)/profit

US\$(19.4)m

FY 2022: US\$37.6m

Adjusted EBITDA¹ and margin

US\$62.6m^{19%}

FY 2022: US\$46.8m 25%

Cash generated from operations

US\$25.5m

Restated FY 2022³: US\$1.0m

Non-Financial

Bookings¹

US\$383.9m

FY 2022: US\$228.1m

Number of employees² (closing)

829

FY 2022: 695

R&D employees² and % of total

741 89%

FY 2022: 621 89%

Number of end-customers

103

FY 2022: 80

Sustainability

GHG emissions

4,942.8 tCO₂e

FY 2022: 1,152.1 tCO₂e

Employee turnover

7%

FY 2022: 10%

Gender diversity

19%

FY 2022: 20%

On-time delivery

100%

FY 2022: 99%

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1. For definitions of non-IFRS measures see KPIs section and Alternative performance measures section.

2. FY 2023 and FY 2022 headcount numbers throughout the report exclude interns.

3. FY 2022 has been restated to reflect the finalisation of the purchase price allocation on the acquisition of OpenFive (see notes 12 and 30).

Our purpose, strategy and values

Our connectivity semiconductor technology is at the core of the rollout of AI technology and the ongoing upgrade of digital infrastructure, enabling data to travel faster, more reliably, and at lower power.



Purpose

Pioneering connectivity technology to enable a new era of accelerated computing, unlocking its potential to create economic and social value.

Financial review on page 66
Non-financial information statement on page 60



Ambition

To become the leading semiconductor company in wired connectivity and compute technologies for AI and digital infrastructure markets.

Further details on our end-markets on page 18



Strategy

Our strategy is built on three pillars:



Technology leadership



Expansion



Innovation

Further details on our strategy on page 20



Sustainability

Sustainability underpins our core values, drives our business strategy and influences the way we engage with our stakeholders.

Responsible business

Work smarter

Sustainable digital infrastructure

Responsible value chain

Further details on pages 33



Culture and values

Our culture and values underpin the way we work and how we engage with our stakeholders.

Our culture is based on collaboration, innovation, openness and an awareness of our impact on society and on the environment.

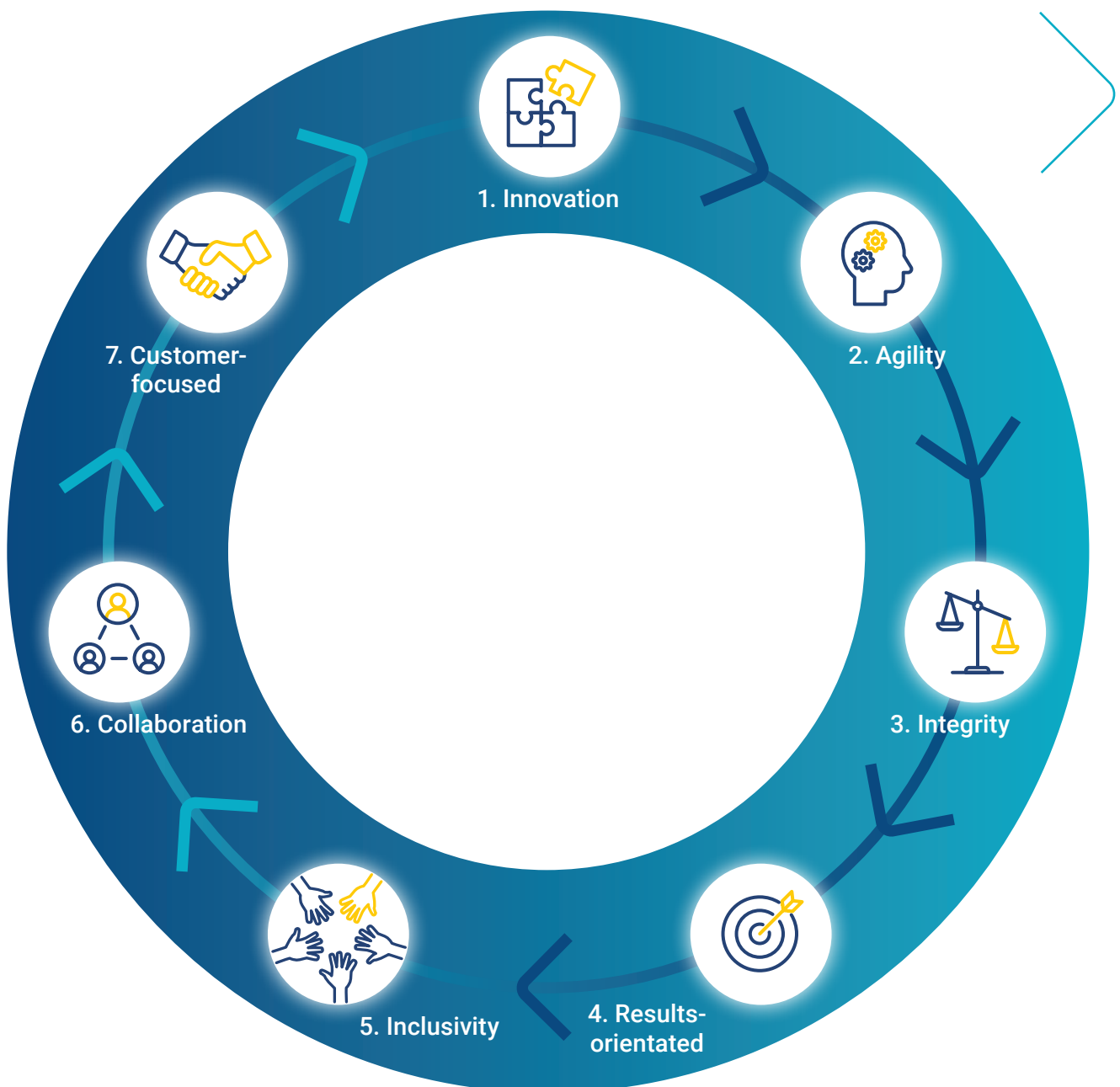
As an organisation, we remain focused on delivering exceptional results for our customers through a relentless focus on innovation, collaboration and agility while maintaining the highest levels of integrity and inclusivity. In support of this we continue to strengthen our workforce with people that will maintain and evolve our culture, enabling us to deliver ongoing success.



Our purpose, strategy and values continued

We are delivering exceptional results for our customers through a relentless focus on innovation, collaboration and agility while maintaining the highest levels of integrity and inclusivity.

Our values





1. Innovation

Innovation fuels our growth as a leader in our industry, driving technological advancements that differentiate us from our competitors. It is a driving force behind everything we do.



2. Agility

We dare to be dynamic in the face of rapidly evolving technological demands. Our nimble execution allows us to consistently deliver game-changing solutions, and has firmly established us as the leader in our field.



3. Integrity

Our reputation is built on an unwavering commitment to honesty, transparency and accountability. It has earned us the respect of the industry, and has made us a trusted partner, employer and global citizen.



4. Results-orientated

Results are the lifeblood of our company. We are driven by the relentless pursuit of delivering exceptional experiences to our customers and exceeding expectations at every opportunity.



5. Inclusivity

Inclusion fuels our success as a company. It taps into the power of diverse perspectives and backgrounds. Our commitment to an inclusive culture drives our innovation.



6. Collaboration

Collaboration propels us forward as a company and a community. By harnessing the power of a truly collective development effort amongst our team and our customers, we are able to accelerate and enhance our technological advancements.



7. Customer-focused

Our customer-centric approach ignites our success. We passionately strive to understand our customers' ever-changing needs so we can deliver exceptional products and establish the highest levels of trust via our unparalleled customer service.

Executive Chair's statement



A year of significant progress.

John Lofton Holt

Executive Chair

Dear shareholder,

2023 was our third year as a public listed company, a year during which we consolidated the acquisitions we made in 2022, while continuing to invest in future revenue growth for 2024 and beyond.

This has been a year of significant progress, where the integrated businesses began to work with a single long-term ambition, to be the leader in wired connectivity solutions for next generation AI and digital infrastructure, and to create value for our stakeholders in pursuit of our goal. The AI boom is not only an important driver for AI as an end-market, but is a force-multiplier with the associated infrastructure investments needed to support AI. All of these markets and end applications need our connectivity technology in the form of IP, custom silicon and connectivity products.

Following the success of our first Capital Markets Day in early 2023, we will be hosting our second event on 4 June 2024. During the event we will share with analysts and investors our long-term ambition for the business as well as all the achievements and the progress we have made so far.

Whilst we remain mindful of the challenging global macro and geopolitical environment, we are laying the foundations ahead of the scaling phase and continue to deliver growth in all three areas of our business: IP licensing, custom silicon, and our exciting new range of connectivity products that will start generating revenue in 2024.

Financial performance

In 2023 we consolidated the three acquisitions we made in 2022 under the Alphawave Semi umbrella. We also made significant organic investments in future revenue growth through hiring and business infrastructure investment.

Bookings for the full year were US\$383.9m, 68% above the prior year (FY 2022: US\$228.1m). Alongside the strong growth in bookings, we delivered another year of robust revenue growth, up 74% year-on-year, a significant achievement for the business albeit below our guidance for the year. Adjusted EBITDA was US\$62.6m, 34% above the prior year (FY 2022: US\$46.8m) although below our guidance for the year of approximately US\$87m. Adjusted EBITDA margin of 19% was below 2022 (FY 2022: 25%). EBITDA in 2023 was US\$9.8m compared to US\$49.3m in 2022. In 2023, the business incurred a net loss of US\$51.0m compared to a net loss of US\$1.1m in 2022. The cash position at the end of 2023 was US\$101.3m. This was lower than the prior year, reflecting the ongoing investment in future revenue growth, including the development of our new opto-electronic products.

People, culture and values

Our employees have embodied our customer focus, with their commitment and passion at the core of our success. On behalf of the Board, I would like to express our sincere gratitude for their hard work during the year.

Our culture and values inform the way we conduct our business, ensuring we are mindful of the impact we have on society and the environment, helping us to build strong relationships with all our stakeholders. Throughout this report are examples of how we live these values, achieving results and maintaining a strong customer focus with an unwavering commitment to collaboration, honesty, transparency and accountability.

Governance and oversight

During the year we continued to evolve our governance capabilities, particularly on financial oversight, as we welcomed David Reeder to our Board as a Non-Executive Director. David has served in senior finance and operational roles in global technologies companies, bringing vast commercial and operational experience in semiconductors as well as additional governance around finance operations. David is a member of the Audit Committee and the Nomination Committee.

We also welcomed Rahul Mathur as our new CFO in October 2023. Rahul's extensive experience in senior finance positions, consistently delivering strong financial results and shareholder value within listed semiconductor companies, has already been invaluable as we continue to build the foundations for the next phase of business growth. I have the pleasure of working with Rahul on a daily basis and I feel more confident than ever in our finance team.

Stakeholder relationships

As a company we seek to establish strong and responsible relationships with customers, partners and the communities in which we operate. Our values extend to the way we engage with all our stakeholders.

We contribute to society by promoting diversity, fostering the next wave of innovation and innovators, promoting responsible business practices and playing our role in tackling climate change. We do this both through our own activities and in collaboration with our customers and other stakeholders, for shared success.

We are a fabless business, i.e. we do not own any manufacturing facilities, we partner with multiple stakeholders in the supply chain, playing our role in promoting responsible business practices (see Supply Chain section on page 49). As the business grows and matures we will continue to enhance our policies and practices in this area.

In July 2023, we joined the United Nations Global Compact (UNGC), supporting the Ten Principles of the UNGC on human rights, labour rights, environment and anti-corruption. In this report, you will find how some of our activities advance the broader development goals of the United Nations, particularly the Sustainable Development Goals.

Executive Chair's statement continued

Sustainability

During the year we made further progress on our sustainability strategy by undertaking our first materiality assessment. The ESG Steering Committee met three times during the year and the outcome of the materiality assessment was presented at the last meeting of the year. The assessment will inform our ESG strategy and will help us prioritise our key sustainability areas. In 2024 we will review and consider the implementation of its detailed recommendations (see ESG section on page 33).

Update on our China go-to-market strategy

Following the simplification of our China strategy in 2022, during 2023 the Group made three small additional investments in WiseWave for a total of US\$14.7m. We are seeking to exit our equity investment in WiseWave in 2024 but we will time this exit based on market conditions to maximise return to shareholders.

With these changes to the Group's go-to-market strategy in China, we will continue to execute against the market opportunities in China in a simplified way that adapts to the evolving geopolitical and macroeconomic environment.

Outlook 2024 and beyond

In 2024 we will put in place the final pieces of the consolidation phase and start preparations for the beginning of the scaling phase of our business in 2025. For the FY 2024 we expect revenue to be between US\$345m to US\$365m and adjusted EBITDA margin of approximately 20%. Our 2025 targets have been revised to approximately US\$450m of revenue (previously US\$500m) and adjusted EBITDA margin between 20% and 25% (previously 30%).

We are executing on our strategy and we remain excited about the growth potential of our business. We are creating a leading semiconductor business in high-speed connectivity and compute technologies. But most importantly, we are building on our strengths to generate significant value for shareholders and other stakeholders over the long term.

John Lofton Holt

Executive Chair

23 April 2024

CEO Q&A



Investing to become the next leader in connectivity for AI.

Tony Pialis

President & Chief Executive Officer

Q What would you highlight about the business performance in 2023?

During 2023 we signed a record US\$383.9m of bookings (FY 2022: US\$228.1m), up 68% over the prior year. Of the US\$274.0m of licence and NRE bookings signed in 2023, over 80% were in advanced nodes, 7nm and below. Given the complexity of this market, our success reflects the strength of our technology leadership and the business potential of the acquisitions we made in 2022. Our backlog at the end of 2023 was 7% below the prior year. In 2023 we reduced our backlog by approximately US\$87m of net adjustments of which nearly half came from the backlog acquired through OpenFive. Our backlog is now enriched by more business in advanced nodes from which we can extract higher profitability over the long-term.

We continued to integrate the business operations of the 2022 acquisitions and delivered strong revenue growth but our financial results were below our guidance for the year. This was mainly as a result of our accelerated transition away from our legacy custom silicon business and differences in the timing of the revenue recognition of long-term contracts in advanced nodes. In 2023, revenue grew 74% via our historical IP and our newly formed Custom Silicon business. In parallel, we continued to invest in R&D, maintaining our technology leadership. As a result, adjusted EBITDA was up 34% from the prior year to US\$62.6m and adjusted EBITDA margin was below 2022 at 19% (FY 2022: 25%). In 2023 the business generated a loss before tax of US\$39.5m (FY 2022: profit before tax US\$17.2m).

During the year our cash and cash equivalents balance decreased to US\$101.3m (FY 2022: US\$186.2m), as we continued to invest in the development of new products and the necessary equipment to support future growth. We continue to review our capital allocation as well as available sources of capital to support our long-term growth strategy.

With an enhanced product portfolio of connectivity technology for AI, as well as with our partnership with ARM to implement their latest Neoverse cores for advanced AI and data centre compute products, we can further monetise our investments in the form of custom silicon and other connectivity products. This is allowing us to access a larger addressable market focused on AI, gain greater scale and enhance our competitive position. The combined custom silicon design wins in 2023 will support our mid and long-term revenue targets as we start to generate revenue from the production phase. These wins have a potential lifetime revenue from silicon production of approximately US\$500m, which is not yet reflected in our bookings or backlog. The first silicon production orders are expected in 2025, which is when they will start contributing to revenue.

The success of the business would not be possible without the commitment and support of all our employees and I would like to express my sincere gratitude for their hard work during 2023.

Q How does Alphawave Semi compete against much larger players in the industry?

High-speed connectivity IP and advanced ARM compute are the DNA of the business. Our Company has been recognised by the world's largest foundries as the premier leader in high-speed connectivity. But we don't just develop great connectivity, we also do it in the world's most advanced nodes. We look into our portfolio of now over 235 silicon IPs and pull from it the ingredients that we can bring to the table in order to meet our customers' needs.

Our competitive positioning is built on our technology leadership and a full product portfolio of leading connectivity solutions coupled with our partnership delivering ARM compute to the world's most advanced artificial intelligence (AI) processors. This is what differentiates us from some of our competitors that are more focused on certain products or segments. We have been part of TSMC IP Alliance Programme, a key component of the Open Innovation Platform[®], for five consecutive years. In 2023 we became a founding partner of TSMC 3DFabric™ Alliance working towards the adoption of chiplet products.

With a unique portfolio of leading-edge connectivity technology, we are working with our customers to meet their connectivity needs across their data centres and create long-term business relationships.

Many of our customers have first-hand experience of our technology through our IP, which is often the foundation of our business relationship. Once a customer has that positive experience of our technology it creates opportunities to work across other connectivity needs, such as custom silicon or opto-electronics.

Q How are data centres changing to enable the increasing adoption of AI?

In the last decade, AI was run as software on traditional server grade, general performance CPUs. In order to deliver the inevitable performance gains, data centres transitioned to GPU-based architecture. GPUs can perform a higher number of calculations in parallel and have dedicated hardware for implementing complex mathematical models like neural networks and deep learning.

However, as we scale the amount of compute from teraflops to petaflops, we need to build a faster network using leading opto-electronic solutions that can deliver the increased compute capacity with a lower energy footprint.

This has created accelerated momentum, where hyperscalers are designing and implementing their own AI engines, commonly using ARM processors, in addition to industry standard GPUs. These engines are optimised for their specific models, and deliver higher performance using lower power.

Not surprisingly, the custom silicon market is expected to grow at a healthy double-digit rate over the next few years as hyperscalers invest in the development of their own AI engines.

AI and machine learning (ML) put a tremendous amount of bandwidth performance requirements on the network, and are therefore among the major growth drivers for data centre switching over the next five years. With bandwidth in AI growing, the portion of Ethernet and PCI-Express switching that is used to connect AI/ML and accelerated computing will migrate from a niche today to a significant portion of the market by 2027¹. Our connectivity technology plays a central role in building the network connecting the switches, optics and GPUs.

Q How do you see business in China evolving over time?

In 2023, Licence and NRE bookings from China remained below 10% for a second consecutive year (FY 2023: 7%; FY 2022: 10%). This is an important leading indicator of the transformation of our pipeline and our revenue over the medium to long term. Based on this, we expect a decline in revenue from China over the longer term, which will be mainly offset by revenue from North American customers.

In 2023, revenue from China was US\$190.4m or 59% of the Group revenue (2022: US\$105m or 57% of the total). The increase in revenue from China was mainly driven by the legacy silicon business from OpenFive.

China is an important market for the semiconductor industry and the Group will continue to comply with all applicable rules and regulations to ensure we can create sustainable customer relationships in all geographies.

1. <https://650group.com/press-releases/data-center-ai-networking-surges-over-100-y-y-as-infiniband-and-ethernet-achieve-record-revenues-in-1q23-according-to-650-group/>.

Q Did the custom silicon business perform as expected? What do you think is the strength of the offering?

Our broad portfolio of high-speed connectivity IP is what sets us apart. We can bundle our IP and expertise to win larger and more complex custom silicon opportunities at leading-edge process nodes.

We have transformed our custom silicon business from a low margin business to a highly scalable AI and data centre business, and our pipeline is built on opportunities in advanced nodes, 5nm and below.

Our custom silicon team deploys the necessary IP from our portfolio, working closely with our customers, taking their specifications and transforming them into silicon. In 2023, we achieved key wins into next generation 800G/1.6T solutions for data centre, including a 3nm highspeed IP licensing deal and a 3nm custom ASIC win for AI. These wins were the result of our leading connectivity IP, our partnership with ARM and our design capability in advance nodes.

Q Is the Connectivity Products business on track to deliver first revenue in 2024?

The Connectivity Products business is developing the next generation of PAM4 and coherent technology to drive the cabling. This will feed the exponential data growth over the next several generations of product refresh, creating the optical network that connects all the switches inside data centres. We are working closely with a leading North American hyperscaler and we expect first revenue in 2024.

Q What are the main sustainability priorities for Alphawave Semi?

In 2023 we joined the United Nations Global Compact and in 2024 we will be submitting our first Communication on Progress describing our company's effort to implement the Ten Principles. In addition, we undertook our first sustainability materiality assessment, which is informing our sustainability strategy and helping us prioritise what is most critical to the long-term success of the Company. The outcome of the assessment was shared with the Board.

As a provider of leading connectivity technology, our products contribute towards the deployment of a more efficient digital infrastructure, enabling the transmission of data faster, more efficiently and consuming less energy (see IP section on page 51). Our commitment to sustainability extends to our ongoing operations, as we seek to maintain high standards of business conduct across our value chain.

We have delivered ongoing progress with our sustainability reporting (see ESG section on page 33) and we will continue to do so over the coming years.

Q What's next for Alphawave Semi?

During 2023 we consolidated and fully embedded the acquisitions we made in 2022.

We also continued to invest in future revenue growth, expanding our workforce and pushing ahead with the development of leading connectivity technologies and our own connectivity products.

Despite an uncertain macro and geopolitical environment, our customers continue to invest in leading technology. AI investments are ramping up quickly and could amount to US\$200bn globally by 2025¹. Our pipeline reflects the accelerated momentum in the rollout of next generation AI infrastructure and provides a solid foundation from which we seek to create long-term value for our shareholders and other stakeholders. I look forward to the future with confidence.

1. <https://www.goldmansachs.com/intelligence/pages/ai-investment-forecast-to-approach-200-billion-globally-by-2025.html>.

Investment case

A leading-edge connectivity technology business benefiting from the long-term investment in AI infrastructure.

- > The amount of data produced, consumed, shared and processed is growing exponentially.
- > Our technology is at the core of high-growth data infrastructure markets, such as AI-centric data centres and next generation data centres, enabling data to travel faster, more reliably and at a lower power.
- > A growing addressable market expected to grow at 20% CAGR over the 2023-2026 period.

We support our customers with high-performance and power-efficient wired connectivity technology.

- > We are at the forefront of connectivity silicon technology, from 7nm to 2nm processes.
- > We have a unique scalable and configurable product architecture with a growing product portfolio.
- > Our talent pool is focused on solving the hardest problems: speed, reliability and low power.
- > We get an increasing share of customers' technology budget through repeating business and higher-value solutions.

We monetise our IP through a vertically integrated business model (licence and silicon), delivering high revenue growth. We are investing in the development of new long-term growth opportunities.

- > Our licence model and long product cycles provide good visibility to long-term revenue streams and future cash flows.
- > Actual cash flow generation reflects our investment in future revenue growth and the development of our own connectivity products.
- > Our capital allocation supports organic investment in future growth.

+20%

Growth in addressable market 2023-2026 CAGR

103

Number of end-customers

+74%

Year-on-year revenue growth

+68%

2023 year-on-year growth in bookings¹

89%

Engineering pool (as % of total employees)

US\$62.6m

Adjusted EBITDA¹

US\$355m

Backlog¹ excluding royalties

24%

R&D expense as % of revenue

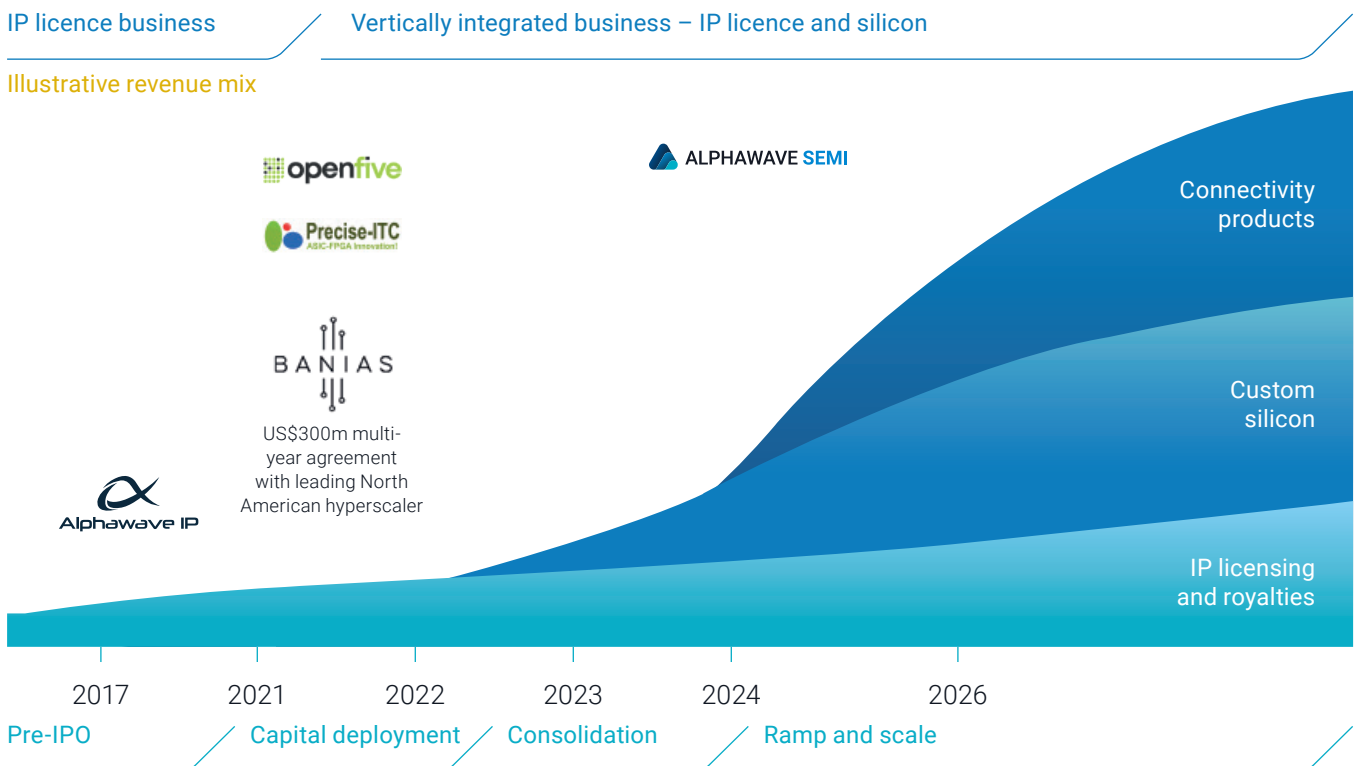
US\$25.5m

Cash generated from operations

1. For definitions of non-IFRS measures see KPIS on page 62 and Alternatives Performance Measures section.

Consolidating our vision for the business

2023 was the first year of the consolidation period of our ambition to become the next leader in connectivity technology for AI data infrastructure markets.



In 2023, we continued to enhance and extend our product portfolio, and to expand our engineering capability. During the year we invested US\$131.4m¹ in R&D activities including the development of our own range of opto-electronic products for hyperscalers (FY 2022: US\$78.0m). Over the period our headcount increased from 695 to 829 at the end of 2023.

The collaboration with our foundry partners has continued to play a key role in pushing forward the boundaries of what is possible with our technology, enabling our customers to roll out advanced technologies.

Our pipeline of opportunities in custom silicon quickly upgraded towards advanced silicon designs. This was enabled by our technology leadership in high-speed connectivity.

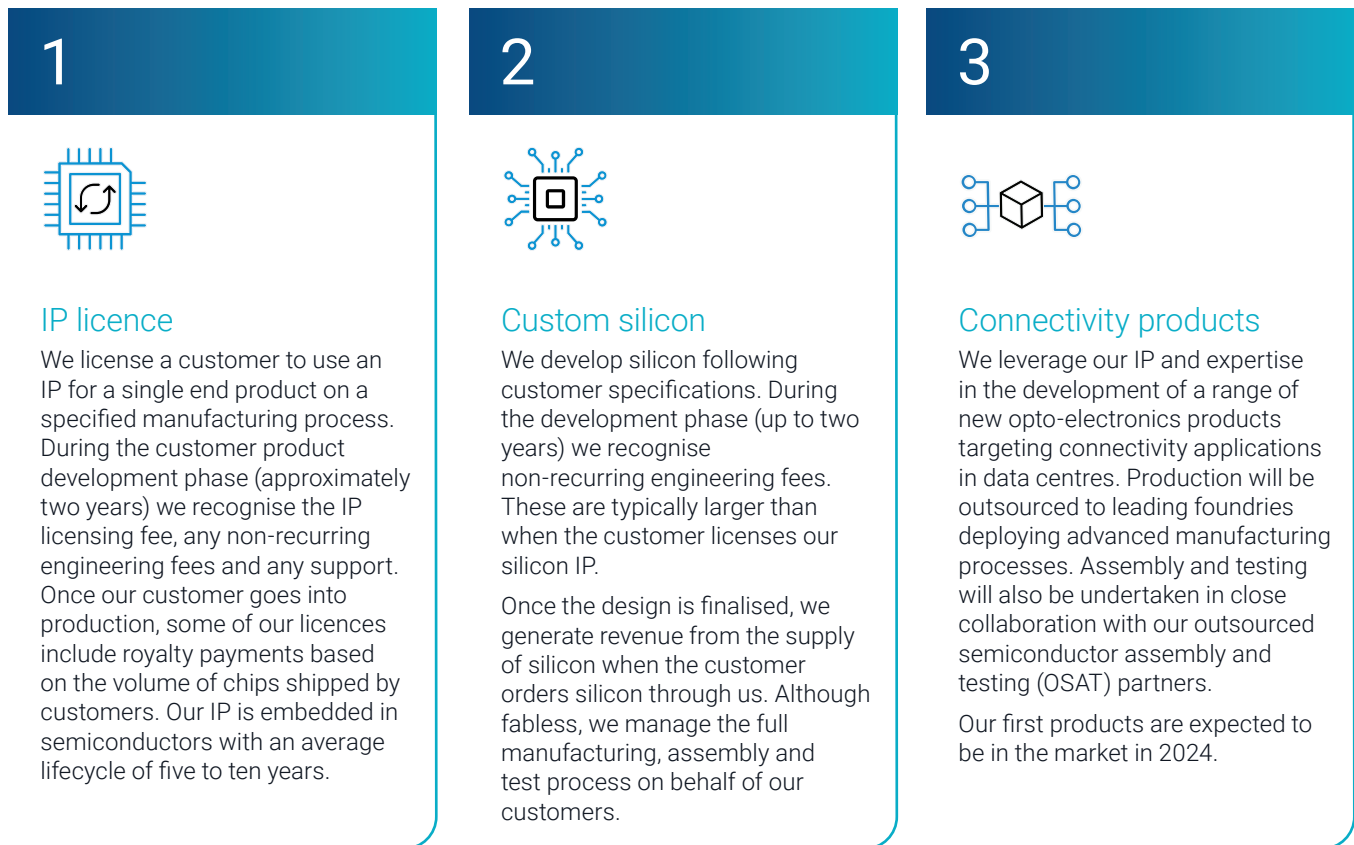
In addition, we expect our first connectivity products to be in the market in 2024.

1. See note 5 Research and development expenses.

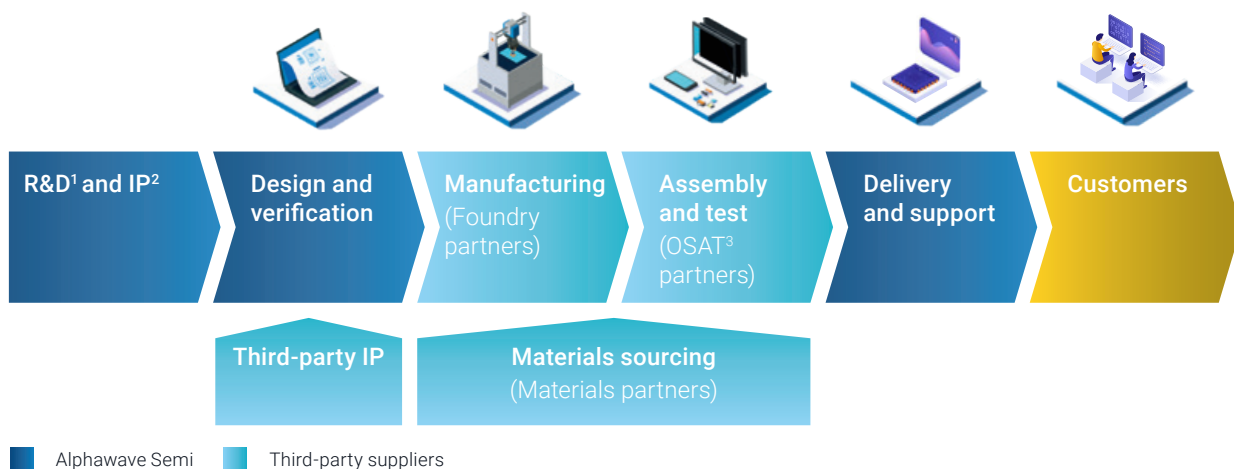
A vertically integrated business model

We bring our connectivity technology to customers in three ways:

- > license our IP and support the customer's silicon development programme;
- > custom silicon design as per customer specifications in which we embed our IP; and
- > other connectivity products targeting data centres.



Where we are in the value chain

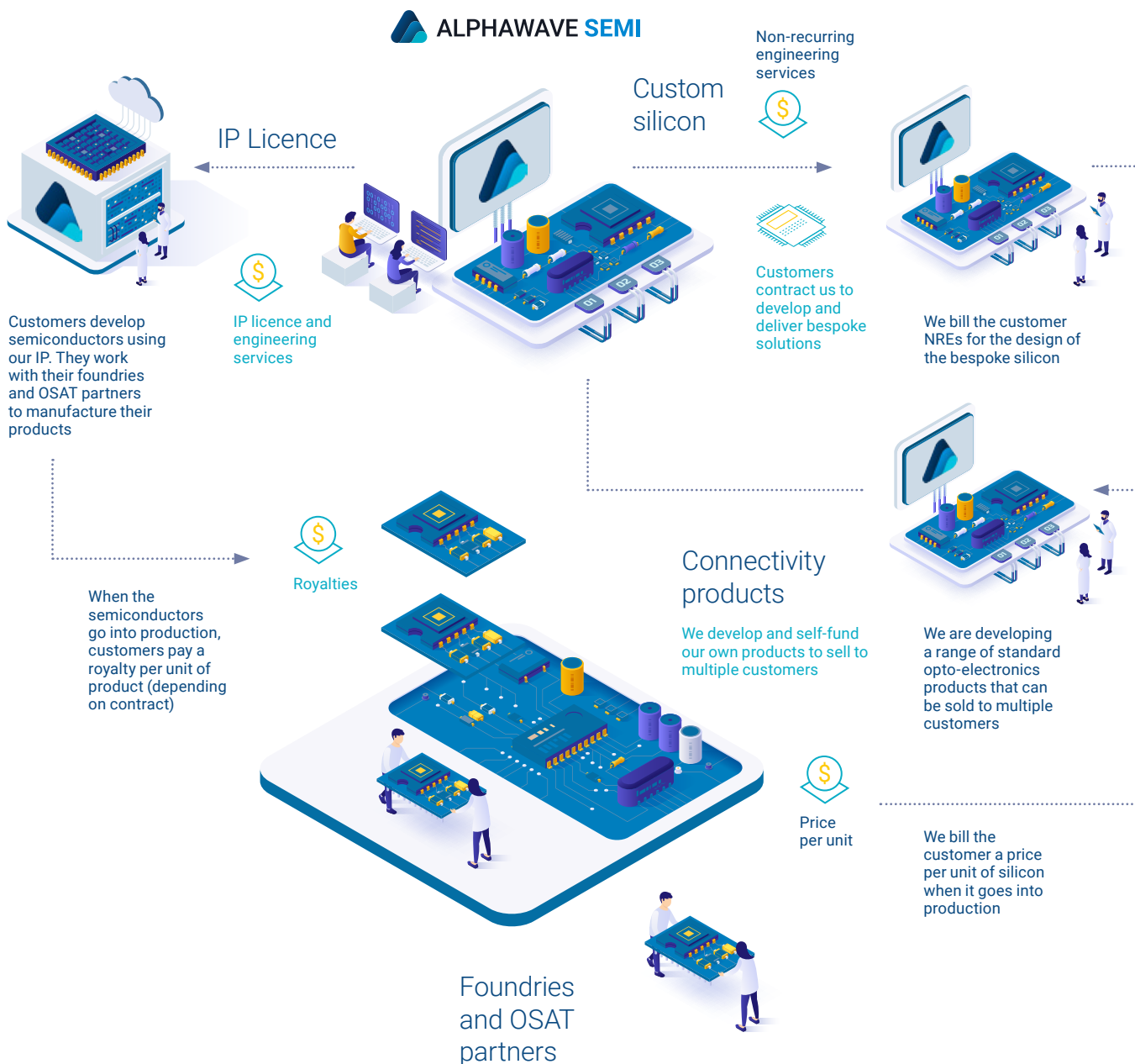


1. Research and development.
2. Intellectual property.
3. Outsourced semiconductor assembly and test.

What we do

Addressing the hardest-to-solve connectivity challenges

We are entering a new era of AI, resulting in an exponential growth in the amount of data that is created, processed, stored and shared. Alphawave Semi develops and markets high-speed connectivity technology for next generation AI and digital infrastructure, such as data centres, enabling data to travel faster, reliably and consuming less power.

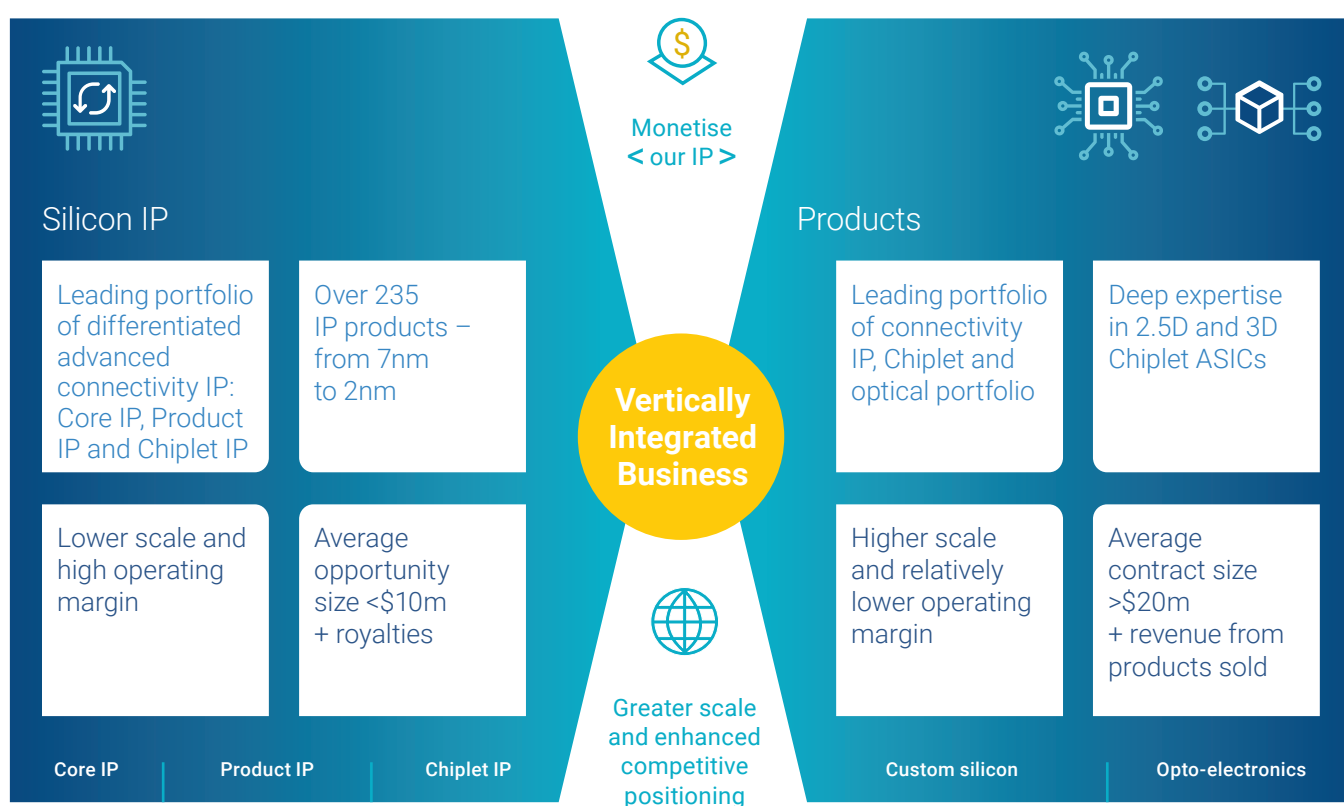


A vertically integrated business model continued

Our customers can choose between licensing our IP, entrusting us with the development and dispatching of custom silicon, or purchasing a new range of opto-electronics products¹. Our business model allows us to further monetise our IP, gain greater scale and enhance our competitive positioning relative to major industry players.









A scalable business model

Since the inception of the Company we have sought to manage our key sustainability issues and risks. For more information see ESG section.



1. Our new range of opto-electronic products is expected to generate first revenue in 2024.

Our business model depends on a range of inputs. Through our business activity we transform these inputs into a set of outcomes and create value for our stakeholders. The table below shows the main inputs and outputs of our business model, and how it links to our strategy and main risks.

Inputs	Outputs/outcomes	KPI/metrics	Link to risks	Link to strategy
Talented people and diversity & inclusion	<ul style="list-style-type: none"> > Highly engaged and diverse workforce > See Our People section on page 38 	<ul style="list-style-type: none"> > D&I KPIs > Workforce engagement > Employee turnover 	<ul style="list-style-type: none"> > Growth > Technology leadership > Key personnel 	<ul style="list-style-type: none">  Technology leadership  Innovation
IP and expertise	<ul style="list-style-type: none"> > Leading wired connectivity IP and products > See Intellectual Property section on page 51 	<ul style="list-style-type: none"> > % of R&D of total employees > TSMC OIP Partner Award since 2019 > 2023 Samsung Best Collaboration Award 	<ul style="list-style-type: none"> > Growth > Technology leadership > IP protection/infringement 	<ul style="list-style-type: none">  Technology leadership  Innovation
Ecosystem of partners and foundries	<ul style="list-style-type: none"> > Responsible and longstanding relationships > See Supply Chain section on page 49 and Business ethics section on page 54 	<ul style="list-style-type: none"> > On-time delivery > Working with the three leading foundries in the industry 	<ul style="list-style-type: none"> > Reliance on third party 	<ul style="list-style-type: none">  Expansion
Close R&D collaboration with customers	<ul style="list-style-type: none"> > Longstanding customer relationships 	<ul style="list-style-type: none"> > Number of end-customers > % of revenue from existing customers 	<ul style="list-style-type: none"> > Customer dependence > Customer demand 	<ul style="list-style-type: none">  Expansion
Financial capital	<ul style="list-style-type: none"> > Increasing long-term returns and investment in high margin revenue with strong cash flow generation > See financial review on page 66 	<ul style="list-style-type: none"> > Adjusted EBITDA > Cash from operating activities pre-tax 	<ul style="list-style-type: none"> > Growth 	<ul style="list-style-type: none">  Innovation  Expansion

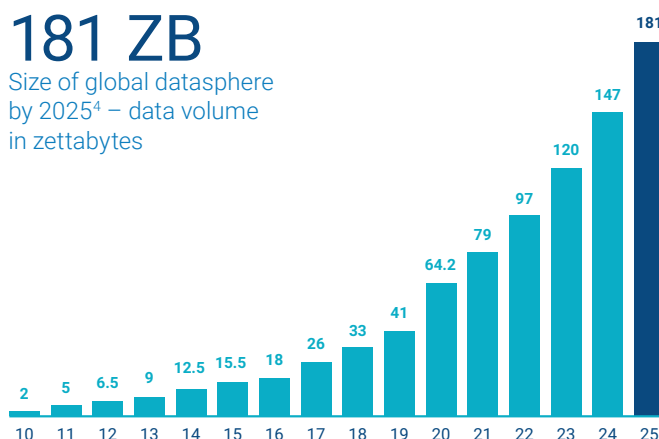
The markets where we operate

Hyperscalers and other cloud service providers are investing in the infrastructure required to roll out AI technologies and the increased demand for enterprise-grade and consumer cloud services.

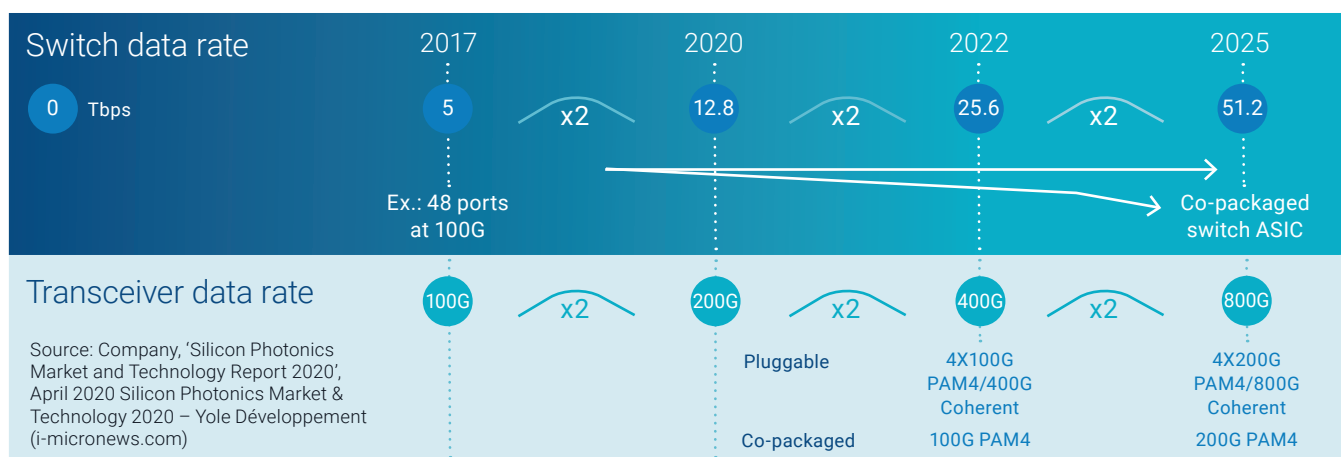
Alphawave Semi works with customers in growing digital infrastructure markets. Growth in our end-markets is driven by the adoption of AI technologies, the exponential growth of data and the increasing need for connectivity technology supporting higher data speeds and bandwidth. Hyperscalers are ramping up their AI infrastructure in data centres to deploy next generation AI technologies¹. Opto-electronic connectivity solutions are needed to scale up the required compute capability and create the network that enables data to flow.

The generative AI market is expected to grow at 42% CAGR² over the next ten years, driven by training infrastructure in the near term and gradually shifting to inference devices for large language models (LLMs), digital ads, specialised software and services in the medium to long term.

The rollout of generative AI, the proliferation of connected devices, mobile phones, social platforms, streaming services, e-commerce, cloud services, virtual and augmented reality, and a long list of data-intensive applications are causing an exponential growth in the amount of data created, shared, processed and stored. The volume of data is expected to almost double, once again, over the period 2022-2026³. To meet this challenge, the number and complexity of data centres continues to increase, creating growing opportunity for our business.




Data rates double every 2-3 years




1. AI Drives Cloud Player Capex Amid Cautious Overall Spend – Counterpoint (counterpointresearch.com), 27 July 2023.
2. <https://www.bloomberg.com/company/press/generative-ai-to-become-a-1-3-trillion-market-by-2032-research-finds/>.
3. The Data Center Journey, From Central Utility To Center Of The Universe (semiengineering.com). Source: Statista <https://semiengineering.com/thedatacenter-journey-from-central-utility-to-center-of-the-universe/>.
4. <https://www.statista.com/statistics/871513/worldwide-data-created/>, 22 August, 2023.

Our core markets


Data centre opportunity:




Data networking



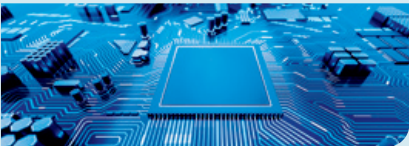
Computer




5G wireless infrastructure



Artificial intelligence



Data storage



Autonomous vehicles

Today our technology is mostly used in data centres and 5G networks (wired component) and, based on current estimates, we expect our addressable market to grow at 20% CAGR over the period 2023-2026.

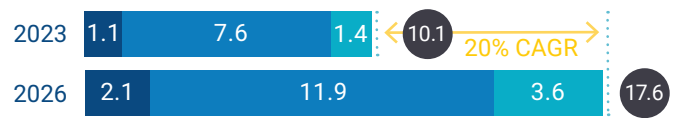
Alphawave Semi has licensed its IP to the leading semiconductor companies and hyperscalers since its inception.

The custom silicon business is an important element of our growth strategy as more and more companies, such as hyperscalers and leading technology businesses, invest in the development of bespoke semiconductors to attain further differentiation, performance improvements and lower costs. In 2023, over 80% of our licence and NRE bookings were in advanced nodes.

Opto-electronic products represent a new revenue-generating opportunity for us over the medium term.

This is a particularly exciting area given the growing need for optical solutions within data centres to scale up compute capability and create the network that enables data to flow. Our solutions meet the increasing demand for higher speeds and bandwidths at a lower cost and reduced power consumption. We expect the first revenue from this product line in 2024.

Addressable markets US\$bn



High performance IP 24% CAGR Custom silicon 16% CAGR Opto-electronics 36% CAGR

Semico Research Corporation, December 2022, IPNest and LightCounting

Key industry trends

- 1 Artificial intelligence**

The increasing adoption of artificial intelligence technologies requires higher data speed, bandwidth and lower latency connectivity.
- 2 Hyperscalers**

Hyperscalers are increasingly developing their own AI silicon to provide technological advantage, optimise workloads and power efficiency.
- 3 Data rates increase**

Data rates double every two years, putting additional pressure on connectivity components.
- 4 Complexity**

The cost and complexity of chip design continues to increase. Chiplets represent a new architecture paradigm enabling more cost-effective solutions.
- 5 Changes**

Changes in data centres (from silo to disaggregated architecture) require specialised low latency connectivity and increased use of opto-electronics.

Strategy

We are leveraging our technology and expertise to build a leading connectivity company for AI and digital infrastructure markets.



Market leadership

Maintain pace of innovation and market leadership by attracting and retaining talent

Progress in 2023

- > Joined Arm Total Design, an ecosystem to make specialised solutions based on Arm® Neoverse™ Compute Subsystems (CSS) widely available across the infrastructure
- > Number of employees in R&D increased from 621 to 741
- > Certified 'Great Place To Work' in all our main locations



Expansion

Land and expand: broader and deeper customer base

- > Expand our customer base in our target end-markets
- > Deepen our customer base by winning new designs with existing customers

Progress in 2023

- > Increase in the number of end-customers generating revenue from 80 to 103 in FY 2023
- > New customers in North America
- > Expanded collaboration with Samsung



Innovation

Leverage our IP to expand our product portfolio and grow our custom silicon business

Progress in 2023

- > Silicon tapeouts for next generation 224G, PCI-Express Gen6, HBM3 and UCIe interface IP in both 5nm and 4nm processes
- > Silicon tapeout for highly configurable 3nm 112G SerDes IP
- > Silicon tapeout on TSMC's 3nm process of High Bandwidth Memory 3 (HBM3) PHY and Universal Chiplet Interconnect Express™ (UCIe™) PHY IPs

In 2023, we made further strategic progress, investing in an enhanced product portfolio and engineering expertise, covering the full range of wired connectivity technologies. The table below shows the links between our strategy, our main risks, the remuneration framework and our key sustainability areas.

KPI/metrics

89%

of employees in R&D function as % of total

>235

number of IP products

7%

employee turnover

! Risk

- > Competition and failure to maintain our market leadership
- > Reliance on key personnel and ability to attract talent
- > IP protection and infringement

\$ Remuneration

- > Adjusted EBITDA (annual bonus)
- > Adjusted Basic EPS growth (LTIP)

🌱 Sustainability

- > People
- > Innovation: close R&D collaborations in ecosystem

🔑 2024 initiatives

- > Ongoing selective hiring in R&D
- > Continued effort to support talent with enhanced HR policies and compensation framework
- > Expand foundry partnerships with further design wins at 3nm and beyond

KPI/metrics

93%

of licence and NRE bookings from North American, APAC and European customers

103

revenue-generating end-customers in 2023

! Risk

- > Customer dependence
- > Customer demand
- > Dependence on licensing revenues
- > Reliance on third-party manufacturing foundries
- > External environment and events

\$ Remuneration

- > Revenue (annual bonus)

🌱 Sustainability

- > Innovation: close R&D collaborations in ecosystem
- > Efficient and responsible value chain

🔑 2024 initiatives

- > Focus on custom silicon opportunities in advanced nodes
- > Start of the ramp of new products for a leading North American hyperscaler
- > Convert pipeline of opportunities in advanced nodes to revenue

KPI/metrics

US\$322m

FY 2023 revenue

3nm

custom silicon tapeouts

! Risk

- > Competition and failure to maintain our technology leadership
- > Reliance on key personnel and ability to attract talent
- > IP protection and infringement

\$ Remuneration

- > Revenue (annual bonus)
- > Adjusted EBITDA (annual bonus)
- > Adjusted Basic EPS growth (LTIP)

🌱 Sustainability

- > People
- > Innovation: close R&D collaborations in ecosystem

🔑 2024 initiatives

- > Continued focus on advanced IP enabling the rollout of AI technologies
- > Expand product road-map including PAM4 and coherent DSP building on IP portfolio and IP subsystems
- > Continued focus on high-value custom silicon opportunities

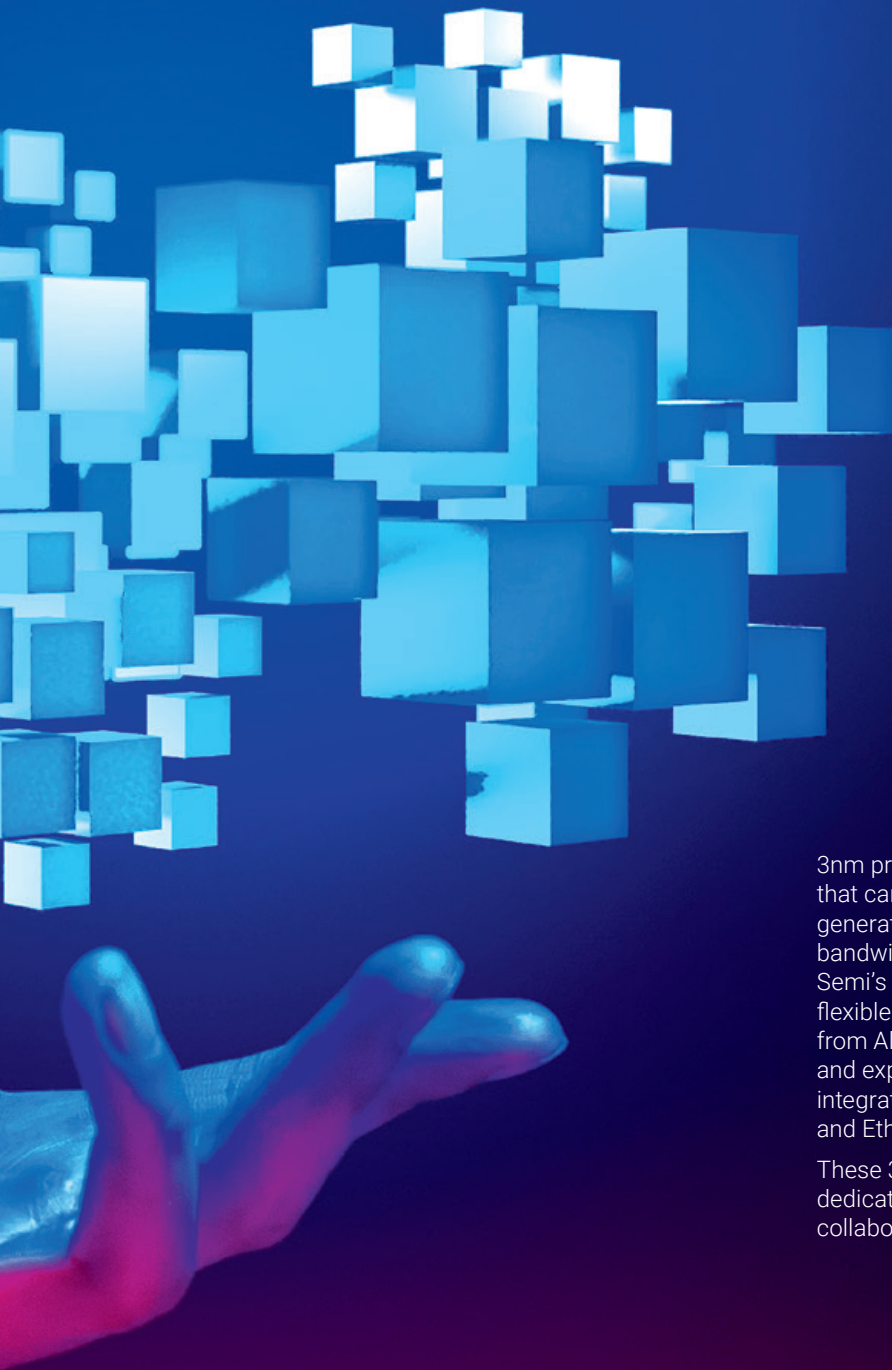
Strategy in action



Market leadership

Enabling next generation chiplet-based custom silicon for generative AI and data centre workloads

With our vertically integrated semiconductor focus, in 2023 we delivered a comprehensive 3nm chiplet connectivity platform for hyperscaler and data-infrastructure customers to keep pace with the surge in data-intensive applications such as generative AI.



3nm process technology is vital for creating advanced chips that can effectively handle the exponential surge in data generated by AI, with demands for more compute, memory bandwidth, I/O speeds, and energy efficiency. Alphawave Semi's 3nm chiplet-enabled custom silicon platform is built on flexible and customisable connectivity IP. Customers benefit from Alphawave Semi's application optimised IP subsystems and experience with the TSMC 3DFabric™ ecosystem to integrate advanced interfaces such as CXL™, UCIe™, HBMx, and Ethernet onto custom chips and chiplets.

These 3nm tapeouts are a testament to Alphawave Semi's dedication to technology leadership in connectivity and our collaborative efforts in fostering an open chiplet ecosystem.



Expansion

Expanded customer base

In 2023, we continued to expand our customer base and to broaden the business relationships with existing customers.

At the end of 2023, the total number of revenue-generating end-customers was 103, representing a 29% increase over the prior year (2022: 80).

103

Revenue-generating
end-customers
FY 2023

During 2023, we worked with leading technology companies, including hyperscalers, leading semiconductor device companies and data centre module makers.

During this time we expanded our collaboration with Samsung, to include 3nm connectivity IP. Samsung Foundry platform customers can benefit from Alphawave Semi's most advanced high performance connectivity IP and chiplet technologies, including 112 Gigabits-per-second (Gbps) Ethernet and PCI Express Gen6/CXL 3.0 interfaces to build the complex systems-on-a-chip (SoCs) needed to keep pace with the rapidly growing demands of data-intensive applications, such as generative AI and the associated infrastructure required by global data centres.

Strategy in action continued



Innovation

Fostering innovation through a robust chiplet ecosystem

Generative AI has fundamentally transformed data centre compute and connectivity by creating a surge in demand for compute, memory bandwidth, I/O speeds and energy efficiency.



In 2023 Alphawave Semi continued to enhance its capabilities, joining Arm® Neoverse™ Compute Subsystems (CSS). The integration of Arm Neoverse CSS onto Alphawave Semi's most advanced high-speed connectivity IP and chiplet-based custom silicon platform, paves the way for a new generation of SoCs tailored for hyperscalers and other data infrastructure customers.

Customers gain a significant time-to-market advantage by integrating Arm Neoverse CSS compute with Alphawave Semi's Universal Chiplet Express (UCIe™) enabled custom silicon and pre-built connectivity chiplets.

Stakeholder engagement and S172 statement







This section of the strategic report, along with the referenced pages, includes the Company's section 172(1) statement. It also outlines how the Directors have interacted with employees, considered their interests, and managed the Company's business relationships with customers, suppliers and other external stakeholders.

We aim to embed sustainable and responsible business practices into the way we act internally and how we engage with external stakeholders. Our Code of Ethics and Business Conduct sets out how we maintain a high standard of integrity across all engagements.

Examples of how Directors have considered these matters in connection with key decisions are detailed on page 32.



Relationship with our stakeholders

<p>Customers</p> 	<p>> Our technology enables our customers to develop and sell, or use for their internal operations, the next generation of connectivity solutions.</p>	<p>We benefit from our customers' feedback both at service level and opportunities for business development.</p>
<p>Employees</p> 	<p>> We seek to create an entrepreneurial and dynamic culture where the best in our sector want to work.</p>	<p>We create an inclusive environment where we reward performance, foster talent development and care for the wellbeing of our employees.</p>
<p>Partners and suppliers</p> 	<p>> We foster strong, collaborative and responsible working relationships with our partners and suppliers over time.</p>	<p>Our CEO and SVPs meet our main partners and suppliers at least annually.</p> <p>There are also regular face-to-face meetings with our key partners.</p>
<p>Investors</p> 	<p>> We engage with investors to help them understand our technology, business model and strategy and how they can generate long-term and sustainable value.</p>	<p>Our Board also engages with shareholders, including at the AGM, and receives regular updates from our Head of Investor Relations.</p>
<p>Community</p> 	<p>> We aim to make a positive contribution to the communities in which we operate through technological advance and the enhancement of the local skills pool.</p>	<p>See more about our internship and STEM programmes on Our People section.</p>
<p>Governments and regulators</p> 	<p>> We maintain good relations with regulatory agencies in the regions in which we operate, industry bodies and trade associations.</p>	<p>We engage with industry and sector groups to support the development of industry standards.</p>



Customers

Engagement

- > Customer service feedback
- > Regular project meetings
- > Industry and commercial events
- > Discussion of new business opportunities

Frequency

- > Regular contact with customers (new and existing)

What do they care about?

- > Innovation and investment in R&D
- > Product quality (innovation), performance and price
- > Project schedules

Sharing value created

- > Pushing the boundaries in wired connectivity technology (manufacturing node, reliability and low power consumption)
- > Meeting project schedules



Employees

See Our People section

Engagement

- > Annual employee survey
- > Employee reviews and monthly employee focus groups
- > All-staff calls
- > Senior management presentations
- > Designated workforce engagement Board Director

Frequency

- > Monthly, quarterly and annual basis

What do they care about?

- > Company strategy
- > Turnover and terms of employment
- > Innovative projects and team culture
- > Learning and development
- > Working environment
- > Flexible working practices and spaces

Sharing value created

- > US\$131.6m expensed in salaries and performance incentive programmes
- > Employee benefits
- > Training and development programmes



Partners and suppliers

See Supply Chain section

Engagement

- > Regular project meetings
- > Annual/quarterly reviews
- > Annual audits

Frequency

- > Ongoing

What do they care about?

- > Innovation
- > Company strategy and performance
- > Price
- > Sustainability topics such as human rights and labour rights, conflict minerals and quality

Sharing value created

- > Creating long-lasting partnerships built upon innovation, respect for human and labour rights, quality standards, and health and safety



Investors

See Our Markets section and ESG section

Engagement

- > AGM
- > Financial reporting
- > Capital Markets Day, investor roadshows and conferences
- > Ongoing investor relations engagement
- > Investor survey (bi-annual or when considered necessary)

Frequency

- > Ongoing

What do they care about?

- > Technological trends
- > Company strategy and performance
- > Cash flow trends and capital allocation
- > Competition for talent and diversity
- > Governance, particularly financial oversight
- > Key sustainability areas such as innovation, remuneration, diversity and talent management

Sharing value created

- > Delivering on our strategy which supports long-term appreciation of our share price



Community

See Community Engagement section and Our People section

Engagement

- > Community projects and fundraising
- > University relations
- > Internship programme with the University of Toronto, University of Ottawa and a number of other universities in India
- > Publication of our annual report

Frequency

- > Monthly to annual contact with local communities

What do they care about?

- > Sponsorships and volunteering
- > Donations and additional support
- > Contribution to research and the advancement of technology

Sharing value created

- > Contributed approximately US\$37,000 towards community projects
- > Twelve interns as of 31 December 2023.
- > Creating stable and high-quality jobs



Governments and regulators

See Environmental Responsibility and Business Ethics section

Engagement

- > Government consultations
- > Regulatory enquiries
- > Industry/sector groups including standard setting groups

Frequency

- > Ad hoc
- > Ongoing collaboration with standard setting groups

What do they care about?

- > Sector-wide issues
- > Geopolitical risks
- > Compliance and regulation
- > Environmental regulation

Sharing value created

- > US\$9.7m paid in corporate tax
- > Active engagement with regulators and other bodies to understand their requirements and educate them on industry impact of regulatory changes

Women in technology

During the September 2023 Board and Committee meetings, the Remuneration Committee Chair held a roundtable session focused on women in technology. It was a chance for some of the women in the Toronto office to come together and share insights and experiences. They were able to share their journey to success, offer advice on navigating the workplace, and explore ways to support the next generation of women in technology. This was also an opportunity to ask the Remuneration Committee Chair career questions. The meeting reinforced the importance of fostering a supportive community for women in technology.



Section 172 statement

The Board and our stakeholders

Our commitment to stakeholder engagement lies at the heart of our strategy formulation and execution. It plays a pivotal role in achieving sustainable long-term success. The Board meticulously considers the needs of our diverse stakeholders and carefully weighs the consequences of every decision over the long term. By considering our stakeholders in key business decisions we ensure that we continue to build trust and maintain their ongoing support. Whilst it is not always possible to provide possible outcomes for all stakeholders, the principal decisions made by the Board as a whole have met the expectations of investors and the market.

This year marks significant progress as our integrated businesses unite under a single long-term ambition: to lead in connectivity solutions for next generation AI and digital infrastructure. Our unwavering focus is on creating value for stakeholders as we pursue our goal.

The Board continues to act responsibly in line with our purpose, values and strategy, helping the Company create ongoing economic, social and stakeholder value.

The Directors confirm that they have acted in a way they consider, in good faith, to be the most likely to promote the success of the Company for the benefit of its members as a whole, and in doing so have had regard, amongst other matters, to the matters set out in section 172 (1) of the Companies Act 2006. In doing so, however, they must have regard to the interests of all of our stakeholders, to ensure the long-term sustainability of the Company.

An introduction to our stakeholders can be found in the preceding pages of the strategic report. Further information on how Directors have had regard to their section 172 duty can be found throughout the strategic and governance reports.

Section 172 – stakeholders and Board decision-making

Our customers

The Board continues to receive reports on the pipeline and existing customers as part of the CEO report at Board meetings. This has helped the Board to understand the evolving industry trends and who our customers are.

The Senior Vice Presidents present to the Board on a regular basis on the role that the major business groups play in the future strategy of the Group. In particular, the Board was briefed on the impact of technology for AI, and how this can further strengthen the business.

Our suppliers

Suppliers have a key role in allowing us to deliver our strategy of a full product portfolio of leading connectivity solutions. We collaborate with multiple suppliers in the value chain. The Board delegates manufacturing-related activities, including the management of our foundry, to the Senior Vice President of Silicon Operations with oversight from the CEO. The Board, through the Audit Committee, is kept up to date on any risks that may cause major disruption to the supply chain and the mitigating actions used to reduce this risk.

Our shareholders

The Board receives regular data on changes to the share register and on the level of engagement with shareholders. The Global Head of IR presents feedback on investor sentiment at each Board meeting and highlights any trends. Whilst the Executive Chair and the CEO regularly meet with investors, it is a shared responsibility for all Directors. The Chairs of the Remuneration and Audit Committees engage with investors on specific topics and the AGM provides the main form of interaction between the Board and the shareholders.

Our employees

The Board delegates the overall workforce reward, incentives and conditions, along with executive pay, to the Remuneration Committee. The Board, through the Nomination Committee, considers succession plans for key employees. Both the Executive Directors and Non-Executive Directors have taken part in numerous Alphawave University meetings, which is an opportunity for all Alphawave employees to ask questions and to hear from the Board.

ESG

Introduction

Our success and long-term value creation depend on the close collaboration of various stakeholders. Working closely together and acting responsibly can positively impact our business while creating long-term value for our shareholders, employees, customers, partners and the communities where we live and work.

In 2023 we established the ESG Steering Committee, undertook our first sustainability materiality assessment and joined the United Nations Global Compact.

The Group supports the UN SDGs and through our existing programmes and technologies we contribute to progress against five of the 17 goals.

Managing our resources and relationships

We are managing our resources and relationships to create a sustainable business model, aiming to preserve and create long-term value for a wide range of stakeholders.

A sustainable business model

Vision

Since the Company's IPO, we have sought to carefully manage our key sustainability issues and risks. We aim to embed sustainable and responsible business practices into the way we act internally and engage with external stakeholders in order to create and preserve long-term value for a wide range of stakeholders.

Applicable external standards

We participate in and are committed to the principles of the following standards:

- > United Nations Global Compact (since July 2023);
- > ISO 9001 Quality Management System Standard for our custom silicon operations; and
- > Sustainability Accounting Standards – SASB Semiconductor Standard version 2023-12.

In addition to the above, we apply the UN Guiding Principles and international recognised labour rights, and aim to contribute to the achievement of the UN SDGs.

- > UN Guiding Principles.

Management approach

In 2023, we established the ESG Steering Committee, joined the United Nations Global Compact and undertook our first sustainability materiality assessment.

The ESG Steering Committee is a multi-disciplinary group chaired by the Executive Chair, with representatives from People, Places and Culture (PPC), Governance, Investor Relations, IT, Risk Management and Supply Chain.

The purpose of the ESG Steering Committee is to:

- > ensure all relevant sustainability areas are identified, managed and reported upon, externally and internally;
- > co-ordinate overall ESG strategy and identify areas of improvement across the Group; and
- > ensure consistency between consideration of ESG issues and the Group's main strategic decisions.

The ESG Steering Committee met three times during 2023. During the year, the Steering Committee reviewed and discussed ESG ratings, and considered actions to improve a range of activities. The ESG Steering Committee also supports the identification of ESG risks and opportunities, reviews all relevant KPIs and proposes changes when necessary.

In December 2023 the ESG Steering Committee reviewed the outcome of our first materiality assessment for the first time. Further reviews will take place during 2024 by each functional lead and these will inform our future ESG strategy and prioritise our activities across the Group.

PPC, Operations Manufacturing and IT are responsible for the management of their respective sustainability issues, and are subject to the oversight of the ESG Steering Committee and the management team. Where sustainability management performance issues are of sufficient importance, responsible departments will report these directly to the Board on an ad hoc basis.

Main sustainability issues

In 2023, the Company undertook its first sustainability materiality assessment to support the ESG Steering Committee in the ongoing development of the Company's ESG strategy and management approach. The outcome of the assessment provided a holistic view of where the Company should focus its ESG management and reporting efforts (i.e. identification of its material ESG issues, as well as insight into key risks, opportunities and impacts). It provided recommendations on a number of areas which will be reviewed in detail in 2024.

The assessment was carried out by an external third party, following a structured four-stage approach to identify what matters most to the Company and its stakeholders:

- > baseline research including sector analysis, peer benchmarking, ESG rating reports, customer questionnaires, external standards and media reviews;
- > internal engagement with subject matter experts;
- > external engagement with investors and ESG analysts; and
- > verification and finalisation.

Governance, including risk management, was automatically considered as material.

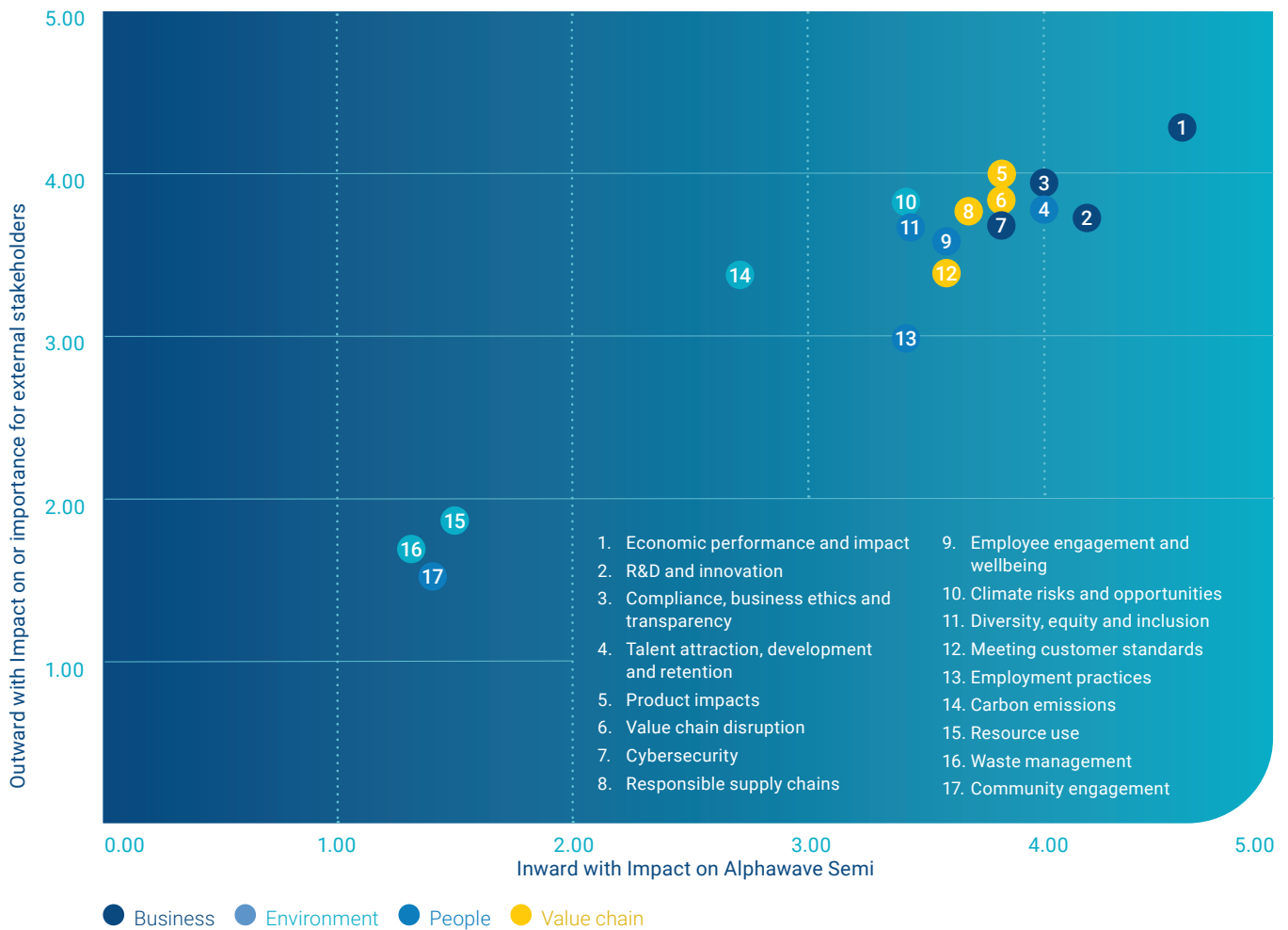
The results of the materiality assessment are set out in the matrix published below.

This includes our most material issues, as well as a range of additional relevant issues that we are also proactively managing. The matrix replaces the SASB Semiconductor Risk Matrix considered in 2022. The Group continues to report on sustainability topics following the Semiconductors Sustainability Accounting Standard 2023-12. Further details can be found in the Appendix.

During the assessment, external stakeholders shared additional comments on three areas:

- > product impacts: the low-emissions nature of the business and the demand for further disclosures on the positive impact of our products;
- > R&D and innovation: as a business at the forefront of technology, the need for a set of KPIs to monitor progress in this area; and
- > governance: investors are placing further scrutiny on a number of ESG topics, such as talent attraction, development and retention or carbon emissions.

Materiality matrix



Managing our resources and relationships continued

Material sustainability issues

These are the sustainability issues that are most important to our business and key stakeholders. Although our sustainability activities cover a wide range of topics, our effort is focused on these.

1. Economic performance and impact
 2. R&D and innovation
 3. Compliance, business ethics and transparency
 4. Talent attraction, development and retention
 5. Product impacts
 6. Value chain disruption
 7. Cybersecurity
 8. Responsible supply chains
 9. Employee engagement and wellbeing
 10. Climate risks and opportunities
 11. Diversity, equity and inclusion
 12. Meeting customer standards
- Business
 — Environment
 — People
 — Value chain

Focus areas in 2024

- > ESG Steering Committee functional leads to review in detail the recommendations of the materiality assessment to inform and identify areas of improvement and next steps.
- > Update our ESG Policy taking into account the outcome of the materiality assessment.
- > Agree carbon emissions baseline based on 2023 data, identify actionable targets and develop a plan.
- > Continue our focus on recruitment, talent management and retention to support our growth strategy.

Alphawave Semi joined the UNGC in July 2023.

The Group supports the UN SDGs and through our existing programmes and technologies we contribute to progress against five of the 17 goals in the following ways:

Highly engaged and diverse workforce



Quality education

Alphawave Semi fosters future innovators through our support for science, technology, engineering and maths (STEM) subjects, particularly amongst female students. This includes our community engagement activities, internship programme, collaboration with universities and our recent partnership in Canada with Let's Talk Science.

Gender equality

Alphawave Semi takes equality and equal opportunity for all employees very seriously. In line with our corporate values, we conduct business ethically, honestly and in full compliance with applicable laws and regulations. This applies to every business decision in every area of the Company worldwide. Our Equal Opportunities and Dignity at Work Policy and Code of Ethics and Business Conduct provide a solid framework to ensure all related activities are fully compliant.

We are making efforts to raise awareness amongst women, both inside and outside the Company, of the exciting careers in engineering.

Decent work and economic growth

As a business built on innovation and leading-edge technology, we recognise the importance of investing in the development of our employees. Alphawave Semi is committed to employing and developing those people who have the necessary skills, experience and values to excel in their role. The Company is also making efforts to develop the talent of the future and our internship programme and learning and development activities are key to this.

Leading wired connectivity IP and products



Industry, innovation and infrastructure

Innovation is at the core of our business and we seek to sustain a healthy level of investment in the development of leading-edge connectivity technology and products. Our technologies support infrastructure development and value creation from the adoption of AI. Our R&D approach and close collaboration with foundry partners, customers and ODMs, ensure we remain at the forefront of connectivity technology.

Climate action

Our connectivity technology helps to reduce the power consumption of data centres, as well as minimise the number of chips required (see pages 52 and 53).

Although fabless, we seek to reduce our carbon footprint using renewable energy in those locations where it is available and offset all travel-related CO₂ emissions.

Responsible and longstanding relationships



Decent work and economic growth

We expect all of our major suppliers to comply with minimum standards relating to impacts on human and labour rights, health and safety, and the environment. The Company is committed to fair wages, healthy and safe working conditions, respect for human and labour rights, and honest relationships with both customers and partners in the supply chain.

This is in addition to our support of the Ten Principles of the United Nations Global Compact on human rights, labour, environment and anti-corruption.

Increasing long-term returns and investment in high margin revenue with strong cash flow generation



Industry, innovation and infrastructure

As part of our strategic objectives, we reinvest cash in the organic development of new connectivity technologies and products. We seek to maintain a focused and sustained investment in the R&D of leading and lower power connectivity technologies aiming to solve the hardest problems.

Our people

Context

Building upon the effort made in 2022, 2023 was a pivotal chapter in our journey, marked by the continued integration of our newly acquired teams. We aim to enhance cohesion, productivity and innovation across the entire organisation. Whilst our headcount grew more slowly this year, we continued to add capability in our teams in support of our growth strategy. Our closing headcount grew from 695 in 2022 to 829 as of 31 December 2023. In 2023, we opened new offices in Pune, India and Ottawa, Canada.

Management approach: nurturing excellence through people-centric values

We firmly believe that our people are the driving force behind our success. Guided by a robust management approach, we seek to prioritise the wellbeing, development and engagement of our employees. This commitment is overseen by the Vice President of PPC and supported by a dedicated PPC team based in each of our regions.

The management team interacts daily with employees and operates a dedicated PPC function at our key sites. We have implemented employee policies and procedures that are appropriate for the size of the Company and meet the requirements of applicable local legislation.

Our goal, reflected in our policies, is that our employees can openly communicate and share any ideas and concerns with management regarding working conditions and management practices without fear of discrimination, reprisal, intimidation or harassment. Our approach is characterised by the following key pillars:

Customised human resource policies

Our HR team is dedicated to the application of human resource policies tailored to reflect local legal requirements, business priorities and labour market nuances. By seeking to ensure compliance while adapting to the unique needs of different locations, we aim to create a work environment that respects diversity and fosters inclusion.

Code of Ethics and Business Conduct

We adhere to a Code of Ethics and Business Conduct that establishes fundamental standards governing our behaviour. This includes a strong commitment to labour and human rights, seeking to ensure that our employees work in an ethical and respectful environment.

Talent planning and development

Recognising that our people are our most valuable asset, we invest in talent planning and development initiatives. This approach seeks to ensure that our employees and our business are equipped with the skills and knowledge needed to thrive in an ever-evolving technological landscape.

Diversity and inclusion

We recognise the benefits that a diverse workforce can offer. We actively seek to create an environment where different perspectives are not only welcomed but celebrated. Our commitment to diversity is fundamental to fostering innovation and creativity within our workforce (see further information on page 42).



Employee engagement and communication

To align our workforce with our business objectives, we implement robust engagement and communication strategies. This seeks to ensure that our employees are well-informed, motivated and connected to the larger vision of the Company.

We undertake annual employee satisfaction surveys and the CEO has regularly appeared in virtual meetings for all employees, providing a summary of business performance, and addressing questions on a wide range of topics (see further information on page 43).

Knowledge sharing and collaboration

We encourage a culture of knowledge sharing and collaboration, believing that collective intelligence fuels innovation. Our employees are empowered to share ideas, collaborate across teams, and contribute to the continuous improvement of our operations.

Employee wellbeing

We strive to create a supportive environment that prioritises the physical and mental health of our workforce. By doing so, we seek to foster a workplace where our employees can thrive both personally and professionally.

Reward and recognition

We recognise high performance through effective and targeted compensation, as well as benefits programmes that enable our employees to share in the value they create.

We seek to create an entrepreneurial and dynamic culture, where the best in our sector want to work and develop their careers in advanced technologies. We have built our company on the foundations of diversity and inclusion, where our employees can share their ideas and concerns.

Working conditions and employment rights

Our workspaces aim to offer our employees the highest standard of safety, comfort, technology and accessibility, with additional measures to ensure employees can successfully work remotely as required.

We support internationally recognised human rights, as laid out in the Universal Declaration of Human Rights, including labour rights such as freedom of association, and aim to ensure that our employees benefit from excellent working conditions, across all geographies.

We have a formal grievance escalation procedure which is referenced in the Workplace Violence and Harassment Policy as well as in the Code of Ethics and Business Conduct (see policies at <https://awavesemi.com/company/esg>).

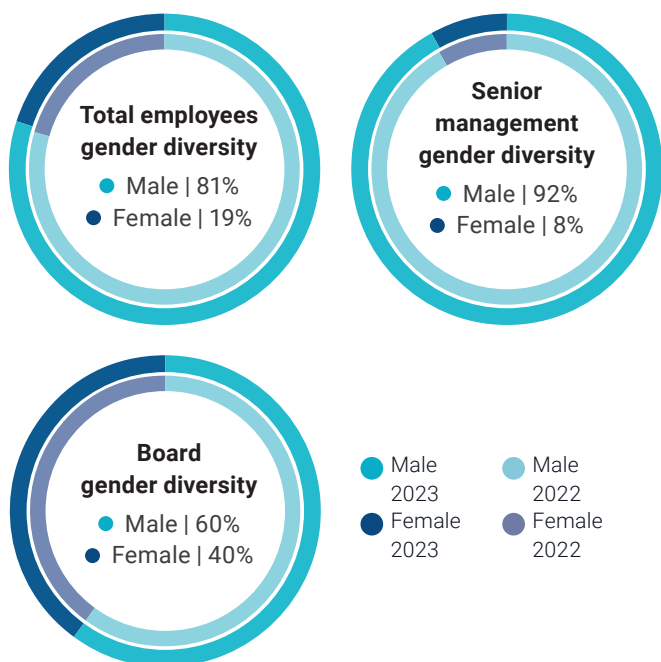


Closing headcount by region

- North America | 43%
- EMEA | 9%
- APAC | 48%

Our people continued

Diversity



Equal opportunities

Our Equal Opportunities and Dignity at Work Policy (see www.awavesemi.com) stresses the value and importance of diversity in the workplace and highlights our strict stance against discrimination, harassment or bullying in the workplace.

We respect and uphold internationally proclaimed human rights principles (Universal Declaration of Human Rights) and in 2022, the first year after our IPO, we put in place an Anti-Slavery and Human Trafficking Policy, which applies to both employees and others through whom the Company conducts business. The Company may perform investigations and audits to verify that business is being conducted in compliance with this policy. For more information see www.awavesemi.com.

Number of employees

FY 2023	Female	Male	Total
Board	4	6	10
Total employees	160	669	829
Senior management ¹	1	10	11

FY 2022	Female	Male	Total
Board	4	6	10
Total employees	141	554	695
Senior management ¹	1	11	12

1. Senior management diversity reflects the composition of the leadership team, including the CEO and the Executive Chair.



Disclosure regarding employment of disabled persons

In accordance with our Equal Opportunities and Dignity at Work Policy, we give full and fair consideration to applications for employment made by disabled persons, having regard to their aptitudes and abilities. We remain committed to any employees who become disabled during their time with us, ensuring they receive the support and training they may require. Promotion and development opportunities are provided for all employees without discrimination. All these topics are covered in our Equal Opportunities and Dignity at Work Policy and Alphawave Semi Accessibility Plan (see all People-related policies at www.awavesemi.com).

Key initiatives

Employee wellbeing

The wellbeing of all our employees is important to the Company. During 2023, our employees continued to work following a hybrid model, working remotely and in our offices.

Number of employees
(closing)

829

FY 2022: 695

Employee
turnover

7%

FY 2022: 10%

Gender
diversity

19%

FY 2022: 20%

We put in place multiple initiatives and activities to make the most of the time our employees spend at our offices, creating opportunities for social interaction and promoting a healthy and supportive environment; for example, health check days, assistance programmes and access to wellness courses such as yoga and meditation.

We have in place a Right to Disconnect Policy (see www.awavesemi.com) which recognises that every employee has the right to, and should, disconnect from work outside of their normal working hours unless there is an emergency or agreement to do so, for example there is an emergency and/or another legitimate reason (examples of which are provided in the policy).

Talent identification and recruitment

We believe our employees are our best ambassadors and that is why the Company has an internal referral programme in place. Employees who refer successful candidates receive a reward. In parallel, we have social media campaigns targeting specific skills and roles.

Employee learning and development

Facilitating learning and sharing across the organisation are key aspects of employee development. Alphawave University is an internal programme that aims to give employees the opportunity to learn different aspects of our Company and its technology. The programme consists of regular sessions where a range of technical and non-technical topics are discussed. Presenters are mostly members of the management team and the Board.

The Company also has an employee education programme that reimburses employees upon successful completion of relevant courses. Employees identify their learning and development needs on a regular basis (both technical and non-technical) and agree these with their line manager.

In 2023, we added over 20,000 courses to our Global HR system covering a broad range of competency and technical training needs.

Alphawave University – A session with our Senior Independent Director Jan Frykhammar

Jan Frykhammar was the main speaker in a virtual meeting with employees, part of the Alphawave University programme. Jan shared valuable insights gained as an experienced CFO. He discussed his views on performance management, risk management and the importance of establishing a clear link between the present and mid-term ambitions. Jan also discussed the importance of culture in organisations and how all employees share a joint responsibility for success.

Leadership development

2023 was the second year of our Board mentoring programme. This programme cultivates leadership excellence within our organisation. By pairing experienced Board members with leaders, this programme fosters a unique mentorship dynamic that transcends traditional hierarchical structures. Through personalised guidance, seasoned leaders can impart strategic insights, industry knowledge and leadership skills to mentees, contributing to their professional growth and development.

The mentorship programme plays a pivotal role in shaping a robust leadership pipeline by instilling a strong sense of organisational culture, values and strategic vision. As mentors share their experiences and expertise, they support the next generation of leaders, fostering a collaborative and forward-thinking leadership ethos that benefits the entire organisation.

Our people continued

Diversity and inclusion

We believe in fostering an inclusive environment where every individual, regardless of gender, background or ethnicity, can thrive. We are committed to supporting community programmes aimed at encouraging children, especially girls, to explore and pursue STEM fields. By investing in these initiatives, we hope to contribute to the development of a diverse talent pipeline and inspire the next generation of leaders.

In 2023, for example, we launched two new D&I initiatives. We started a partnership with Let's Talk Science in Canada, to encourage girls to get into engineering and ultimately take engineering programmes we hire from. Let's Talk Science is an award-winning, national, charitable organisation, focused on education and outreach to support youth development. They create and deliver a comprehensive suite of unique learning programmes and services that engage children, youths and educators in STEM.

In addition, we launched a women's mentoring programme within our organisation, recognising the importance of empowering women to excel in their careers. These initiatives reflect our dedication to fostering diversity, equity and inclusion. Our two largest locations, India and Canada, now have dedicated gender diversity initiatives in place. Our internship programme is also part of our D&I initiatives.

The majority of our independent Board members are women and 19% of our employees are female (FY 2022: 20%).

We closely monitor our salary systems, regular reviews and processes, which have been designed to avoid any gender-based discrimination.

Alphawave Semi is not legally required to submit Gender Pay Gap data as it does not have the minimum required number of employees in the UK. The Company has a Diversity and Inclusion Policy in place which is available on our website at www.awavesemi.com.

Alphawave University – A session with our CEO, Tony Pialis

Tony Pialis, our CEO, was the main speaker in a virtual meeting with employees, part of the Alphawave University programme. Tony shared his background and early experiences as an entrepreneur in the semiconductor industry as well as Vice President of Mixed-Signal IP at Intel. He shared with employees his vision and ambition for the future of the business and how employees can be part of the journey. During the event, employees had the opportunity to ask Tony questions.

Internship programme

Alphawave Semi has internship programmes in Canada and India, the two countries with the highest number of employees. During 2023 we successfully hired many of our interns. As of 31 December 2023, there were twelve interns in the Company (FY 2022: 47).

In Canada, we welcome interns from the universities of Toronto and Ottawa, and the programme runs for a period of 12 to 16 months. As of 31 December 2023, there were eleven in Canada (FY 2022: ten).

The programme seeks to encourage the next generation of engineers and innovators, giving them insight into the wide range of engineering careers and illustrating the valuable contribution they can make to the advancement of technology.

The main objective of our internship programme is to identify high potential students in their final semester or year of their undergraduate or masters degree, with a view to future employment within the Company. As of 31 December 2023, there was one intern in India (2022: 37). The programme engages with universities such as KLE Tech University, the University of Burdwan and the CVR College of Engineering in Hyderabad. Students come from different socio-economic backgrounds.

Reward and recognition

We offer market-competitive pay and employee benefits, along with opportunities for individual and team recognition, all within a supportive working environment. We regularly benchmark our pay and benefits against the employment markets in which we operate.

Our compensation programmes include short-term cash-based bonus and long-term share plans that allow us to differentiate levels of reward, based on critical skills and performance levels. In early 2023, the Company introduced a performance appraisal process with clear objectives aligned with the Company objectives.

The majority of our employees participate in our long-term incentive programme which helps to promote a shared sense of ownership. The majority of the hires we made in FY 2023 were given equity incentivisation through our long-term employee share programme.

Non-financial benefits

Employees have access to a variety of non-financial benefits that contribute to their overall job satisfaction and wellbeing. These benefits include, amongst others: flexible work arrangements, such as telecommuting and flexible hours; professional development opportunities such as training programmes and educational assistance; and health and wellness initiatives, including health insurance and access to gym memberships, as well as access to financial counselling.

We seek to ensure that our teams have the opportunity to participate in team-building activities and workshops, fostering a positive company culture. In addition, employees have access to different work amenities such as remote work support and massage chairs. Employee engagement initiatives, a strong emphasis on company culture and values, health check days with doctors on site and volunteer and community involvement programmes, contribute to a holistic and supportive work environment.

The availability of these benefits varies reflecting geographic location, regional cultures and regulatory requirements.

Employee engagement and communication strategies

We implement ongoing employee engagement and communication through town halls, employee forums and local events with the participation of the senior management team. We keep employees updated on the strategic progress of the Company, as well as financial results and key areas of strategic focus for the business.

In 2023, we undertook our second annual employee satisfaction survey, which was conducted by 'Great Place to Work'. The response rate for the Group was 76% (FY 2022: 80%, Canada and US only) and the feedback from our employees was extremely positive. Amongst some of the positive messages, our employees feel that they can make a difference and remain committed to go the extra mile to get the job done.

The survey also suggested that enhancing work/life balance and development programmes remain as two of the key areas of interest for our employees.

The results of the annual survey were presented back to the Board and employees, and have informed changes to, for example, the Global Rewards and Recognition Programme, which will be rolled out in 2024.

The Company is now certified as a Great Place to Work® in all its main locations (FY 2022: Canada and US only).

Focus areas in 2024

- > Improve our employee response rate, fostering a workplace where our team members feel valued, motivated and empowered.
- > Implement a comprehensive Global Rewards and Recognition Programme.
- > Implement community outreach initiatives globally focused on education and healthcare.
- > Implement Company-wide job architecture and compensation design and strategy.

Environmental responsibility

Context

As a fabless semiconductor company we have a low carbon footprint relative to companies in other segments of the value chain. Alongside the benefit our products bring to the overall energy consumption in digital infrastructure applications (such as data centres, 5G base stations and artificial intelligence) we are working towards minimising and reducing our carbon footprint over time.

Although fabless, we are making ongoing efforts to minimise our carbon footprint and rely on our foundry and OSAT partners, which are mostly based in Asia, for the fabrication, testing, assembly and distribution of our products.

We intend to use FY 2023 data to baseline our carbon footprint and identify opportunities to reduce carbon emissions further.

Management approach

Responsibility for environmental performance sits with the Board. We govern our environmental responsibility through the application of our ESG Policy, which was approved in early 2023 and addresses our key priorities.

The Company seeks to minimise and gradually reduce its carbon footprint through a combination of emission reduction and energy efficiency initiatives and the use of carbon offsets.

In addition to the environmental reporting in this section we make further disclosures following the Semiconductors Sustainability Accounting Standard version 2023-12 (see SASB table in the Appendix).

Governance

The Board has overall accountability for the management of climate-related risks and opportunities (pages 46 to 48).



Our Chief Financial Officer is responsible for our risk management framework, including the assessment and management of climate-related risks. The ESG Steering Committee supports and guides the execution of our climate-related and environmental activities.

Our Global Head of Investor Relations is also responsible for leading our climate change agenda and managing our policies and practices across sustainability and ESG matters. Our Global Facilities Manager is responsible for all our facilities and our IT Director is responsible for our IT resilience and IT end-of-life policies.

Strategy

The delivery of our technology to customers is, in certain instances, through virtual and not physical means. Our value chain has worked effectively through exceptional circumstances, such as the COVID-19 pandemic, to execute remotely and from alternative locations. Therefore, we regard our exposure to direct physical climate-related risks as low.

Further, the impact of any transitional changes upon the Group and its operations is considered to be low compared to those businesses that have more direct dependencies. However, carbon pricing policies and the cost of energy can have some impact in the running costs of our business.

In preparing the consolidated financial statements, the Directors have considered the impact of climate change on the Group and have concluded that there is no material impact on financial reporting judgements and estimates (as discussed in note 3 to the financial statements). This is consistent with the assertion that risks associated with climate change did not affect the business, its strategy and financial performance in 2023, and are not expected to have a material impact on the longer-term viability of the Group.

Further, the Directors do not consider there to be a material impact on the carrying value of goodwill, other intangibles or on property, plant and equipment.

Metrics and targets

For the third consecutive year, the Company appointed Carbon Footprint Ltd, a carbon and energy management company, to independently assess its greenhouse gas (GHG) emissions in accordance with the UK Government's 'Environmental reporting guidelines: including Streamlined Energy and Carbon Reporting requirements'. The GHG emissions have been assessed following the ISO 14064-1:2018 standard using the 2021 emission conversion factors published by Department for Environment, Food and Rural Affairs and the Department for Business, Energy and Industrial Strategy.

We use Scope 1, Scope 2 and partial Scope 3 emissions as our metrics. As a fabless business we outsource the production of semiconductors to leading foundries. In line with our fabless peers, we currently have no data from the foundries on the emissions relating to the manufacturing of our products or our IP embedded in customers' products which would be very complex to calculate. In addition, we use the intensity ratio per employee as defined in the table below.

The assessment follows the location-based approach for assessing Scope 2 emissions from electricity usage. The financial control approach has been used.

The table below summarises the GHG emissions for the 2023 reporting year, including all our locations in 2023. Israel was not included in 2022. In 2023 we moved to larger offices in Pune and Ottawa, resulting in higher Scope 2 emissions. Israel was not included in the reported 2022 emissions.

Scope 1 includes emissions associated with gas consumption. Scope 2 includes emissions associated with electricity consumption. The increase in Scope 1 and Scope 2 emissions was mainly driven by the increase in our headcount and the square footage of our offices. Scope 3 includes those emissions associated with business travel and also includes electricity consumption attributable to our utilisation of servers within our third-party data centre provider. In our 2023 Scope 3 emissions we have for the first time, included those from outsourced logistics, commuting and computing. This resulted in an increase in excess of 1,600 metric tonnes. In addition, due to the increase in our headcount and level of business activity, emissions related to travel increased by over 800 metric tonnes. These two elements represent over two thirds of the overall increase in 2023. In 2024 we will be analysing in further detail our 2023 emissions to establish a baseline carbon footprint from which we can identify opportunities for improvement over the short, medium and long term and assess the need for more specific reduction goals and targets.

Streamlined Energy and Carbon Reporting	2022	Baseline year 2023
In metric tonnes CO₂e		
Total Scope 1 emissions (natural gas)	208.9	378.7
Total Scope 2 emissions (electricity consumption)	341.5	1,111.5
Total Scope 3 emissions (transmissions and distribution, non-controlled electricity, hotel stays, homeworkers, computing, upstream logistics air and road, well to tank, commuting, flights, hire car, taxi and grey fleet travel.)	601.7	3,452.6
Total gross (Scope 1, 2 and 3) location-based emissions	1,152.1	4,942.8
Intensity ratios		
tCO ₂ e (gross Scope 1, 2 and 3) per employee	1.78	5.96
tCO ₂ e (gross Scope 1, 2 and 3) per US\$m revenue ¹	nm	15.3
Underlying energy consumption (kWh)		
Total global energy consumed	2,618,460	5,685,827
Total UK energy consumed²	n/a	n/a
UK-based emissions	nm	nm
UK-based energy consumption	nm	nm

- tCO₂e (gross Scope 1, 2 and 3) per US\$m revenue reported as nm in 2023 and 2022. Group FY 2022 revenue includes revenue from the acquisition of OpenFive from 31 August 2022 (closing date) but FY 2022 emissions baseline includes annualised contribution from the related locations in India and the US. Considering the annualised contribution of these locations allowed for a more meaningful tCO₂e (gross Scope 1, 2 and 3) per employee comparison.
- UK energy consumed in 2023 and 2022 was calculated based on the kWh for home-working and it represented an insignificant portion of the total energy consumed.

Environmental responsibility continued

Metrics and targets continued

We are gradually rolling out activities to reduce our GHG emissions: actively managing e-waste with robust product lifecycle management programmes for our computer and IT resources, reducing unnecessary business travel, locating our offices in energy-efficient buildings and, where possible, sourcing from renewable energy. In 2023 we made the decision to relocate our offices in Bangaluru to newly built premises that are more energy efficient. The relocation will take place in 2024.

In addition, we are also offsetting our GHG emissions from travel included in Scope 3.

Our reporting is consistent with the recommendations of the Task Force on Climate-related Financial Disclosures (TCFD). We provided the information on our approach to assessing and disclosing climate-related risks and opportunities in accordance with Listing Rule 14.3.27R, except for the following matters: disclosure ('strategy c') – we have not performed a quantitative risk assessment or climate-related scenario analysis. The Directors believe this is not necessary for an understanding of the Company's business at this stage. In 2024 we will evaluate the additional requirements and associated costs to assess the resilience of the organisation under different climate-related scenarios. Following this evaluation, we will make a decision on whether a quantitative risk assessment should be prioritised and the timing if appropriate.

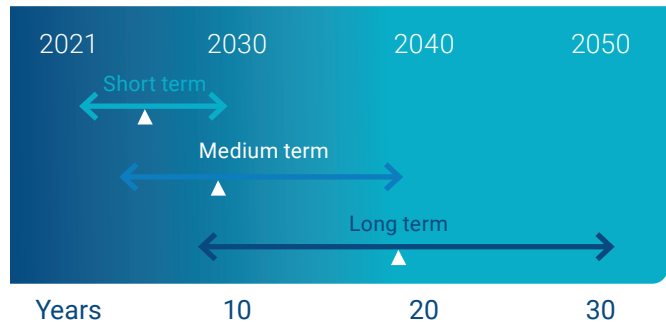
See our full compliance statement in the Appendix.

Risk management

Our process for identifying and assessing climate-related risks and opportunities follows our Group-wide risk assessment and management process. These risks, together with mitigations, are discussed by the executive management team and the Board. Given our fables business model, the Group's exposure to climate-related risks is considered to be limited and not currently classified as a significant risk. Our overall risk management process is described on page 74.

The Group has not identified any short-term direct climate-related risks that are likely to have a material and direct impact on our operations. We are potentially exposed to medium and longer-term climate-related risks of a global/macro nature that impact society in general, together with risks which may impact our end-customers and the broader semiconductor supply chain.

Short, medium and long-term time periods



Climate-related risks and opportunities related to the transition to a low-carbon economy

! Risks

Policy and legal ^



In 2023, we undertook our first business materiality assessment (see page 35).

We continue to adapt and comply with regulatory standards, including evolving product standards.

As a fables business with low capital intensity we do not have a significant amount of assets at risk of impairment or early retirement as a result of changes in environmental legislation.

🔄 Opportunities

Resource efficiency ^



We are actively managing e-waste, reducing unnecessary business travel and, when necessary, relocating our offices into energy-efficient buildings.

Key: Low ^ Medium ^ High ^

! Risks

Technology ^

Medium to long term

Alphawave Semi is at the forefront of wired connectivity technology.

Our leading-edge technology advances push the boundaries of wired connectivity capabilities, enabling data to travel faster, more reliably and using lower power.

Our focus on connectivity and R&D investment seeks to ensure we remain ahead of our competitors.

Market ^

Medium to long term

As a fabless business, energy costs are not a major direct cost driver.

Our business has a low risk exposure from scarcity of 'rare Earth materials'.

Higher energy costs could potentially impact the direct costs of our manufacturing partners and result in higher cost of goods sold. Our foundry partners are the leading manufacturing companies in the industry and continuously invest in the adoption of next generation manufacturing technologies.

Reputation ^

Long term

Although our direct carbon footprint is relatively small compared to other business activities, we seek to reduce our carbon footprint and undertake appropriate efforts to not fall short of best practice amongst fabless semiconductor companies in our sector and our largest customers.

We are planning to use our 2023 carbon emissions baseline to set a clear level from which we can define specific environmental goals.

🔑 Opportunities

Energy source ^

Medium to long term

Energy from renewables is not available in all our locations, but where possible, we try to improve the mix of purchased energy towards renewables.

All our premises are leased. Our offices in Canada (Toronto and Ottawa) and the US (Milpitas and San Jose) are based in modern, smart buildings with energy-saving systems and modern HVAC systems.

In 2023 we selected a new location for our office in Bangalore; a highly efficient building with climate resilience procedures in place.

Products and services ^

Medium to long term

The semiconductor industry is well placed to support the transition to a lower carbon emission economy. Our technology enables semiconductors with lower power consumption, contributing to a more energy-efficient digital infrastructure, such as data centres, 5G base stations and other data-intensive applications.

Our technology contributes in different ways to reduce the power consumption of data centres (see pages 52 and 53).

Markets ^

Long term

We work with the leading companies in the semiconductor industry, leading telecommunications business, technology companies as well as hyperscalers. These companies have a strong focus on reducing their carbon footprint and are investing in new technologies.

Our connectivity technology aims to address the hardest-to-solve problems for customers in digital infrastructure markets.

Our new range of opto-electronics and increased AI and data centre custom silicon business represent new revenue opportunities for our low power technologies, contributing towards reducing the power consumption of data centres and AI infrastructure (see pages 52 and 53).

Environmental responsibility continued

Related to the physical impact of climate change

! Risks

Acute risk (event driven)
(^ to ^)



As a fabless semiconductor company, our own operations are unlikely to face any specific material risks as a result of the physical impacts of climate change, such as property damage due to extreme weather events (i.e. changes in temperature, wind patterns or water-related).

We have not yet assessed current and future climate risks, acute and chronic, in our most critical locations. In 2024 we are intending to evaluate additional requirements and costs involved in such assessment.

All our employees can work remotely and the majority of our offices are located in modern offices in city centres.

Our manufacturing partners have implemented multiple initiatives to reduce their carbon footprint, review water and energy usage, and understand and manage the effects of climate change on their own operations. We work with leading companies such as TSMC, Samsung and Intel which follow the recommendations of the TCFD and have initiatives in place to manage these risks.

Chronic risk (long-term shifts in climate patterns)
(^ to ^)



In the longer term, changes in greenhouse gas emissions regulations could result in increased costs in our supply chain due to higher compliance, raw materials or energy costs to our suppliers.

It could potentially become more difficult or expensive to insure certain locations.

Dependency on natural, human and social capital

Climate change would not create any new direct dependencies on natural, human or social capital.

Our highly skilled engineers and talented employees are vital to ensure we can deliver innovative products. Electronic engineers are in high demand and companies outside the semiconductor industry are establishing engineering departments to design some of their semiconductor requirements.

Focus areas in 2024

- > Develop further training, define process for data collection and reporting requirements to support the collection and monitoring of emissions across the Group's locations.
- > Set emissions baseline using 2023 data and develop emission-reduction strategies for our main locations.
- > Evaluate additional requirements and costs involved in the development of climate-related scenarios.

Key: Low ^ Medium ^ High ^

Supply chain



Context

Our Silicon Operations team is responsible for managing the manufacturing process that is outsourced to foundries as well as semiconductor assembly and test (OSAT) partners.

As a fabless business, our commercial success is reliant on our ability to manage our supply chain. As such, we are not only focused on minimising any reputational, commercial or contractual harm but also to identify and proactively manage related sustainability impact.

As well as minimising potential disruption risks, this also includes sustainability aspects such as:

- > impact on human and labour rights (aligned to national legislation);
- > health and safety performance of our partners; and
- > environmental impact.

Our main foundry and OSAT partners, which are the leading companies in their sectors and much larger organisations, have longstanding environmental and labour programmes in place.

Management approach

We outsource the production of our semiconductors to the leading companies in the industry, such as TSMC. These companies provide high-quality products and have the ability to meet both our stringent qualification requirements and our tight deadlines.

Assembly and test functions are also outsourced to leading companies in the sector, such as ASE.

We still retain advanced packaging expertise in-house, such as 2.5D and 3D technologies, as this is an area of vital importance in the development of new architectures, such as System-in-Package and chiplets.

Our manufacturing operations are ISO 9001:2015 certified <https://awavesemi.com/custom-silicon/>

Our Vice President of Silicon Operations is responsible for all manufacturing-related activities, including the management of our foundry, assembly and test partners. Board-level responsibility for supply chain lies with our CEO.

We manage our supply chain by:

- > requiring all our fabrication, assembly and test partners to be ISO 9001 certified;
- > the categorisation of partners as critical and non-critical;
- > screening all partners against our manufacturing partner assessment survey and undertaking on-site audits for a limited number of suppliers, mainly those categorised as critical;
- > carrying out annual audits (audit-light approach) of our major partners using the assessment survey checklist including a focus on training and development of staff, working conditions and the traceability of materials, as well as a range of topics directly related to the quality and control of their activities;
- > jointly reviewing the annual audits with our partners, including any recommended corrective actions. Any major discrepancies may require a re-survey to verify that the required corrective actions have been implemented;
- > significant non-compliance quality events are addressed by issuing Corrective Action Requests (CARs). These actions identify root cause, implement permanent corrective actions, and are followed by monitoring its effectiveness;
- > engaging with those suppliers which have not met our requirements to resolve and to raise their level of performance to acceptable levels; and
- > carrying out weekly business and performance reviews with our regular partners, as well as in-person bi-monthly business reviews and annual meetings with our major vendors.

In addition, certain customers carry out due diligence on us and our suppliers to ensure adequate systems are in place to monitor ongoing performance, ensuring it is in line with expectations and the products supplied meet all requirements.

Supply chain continued

Performance

In 2023, we performed 14 audits (FY 2022: 11 audits), covering the majority of our manufacturing partners as well as our main foundry partner. The average score of the audits undertaken in 2023 was 99%. The lowest score achieved was 94.7%. Three of the 14 audits were undertaken onsite and the remaining through self-assessment.

During the year we raised two CARs and sought to obtain full resolution. In one of the cases we achieved this with enhanced part marking, additional training and instructions.

On-time delivery (OTD)

OTD measures supply chain efficiency; whether or not the Company is meeting its goals in regard to agreed delivery times. It is also important for maintaining customer satisfaction. In FY 2023, average OTD was 100% which was in line with 2022 (from 1 September to 31 December 2022, the average OTD was 99%).

Conflict minerals

We support international efforts to ensure that the mining and trading of tin, tungsten, tantalum and gold (known as 3TG) in high-risk locations do not contribute to conflict and/or serious human rights abuses in the Democratic Republic of the Congo (DRC) and the Great Lakes region of Africa (or elsewhere). We have a Conflict Minerals Policy in place which is available on our website: <https://awavesemi.com/custom-silicon>.

Alphawave Semi extends this obligation to our suppliers, requiring them to reasonably assure that the tin, tungsten, tantalum and gold in the products they manufacture are conflict free. The Company also expects its suppliers to establish their own due diligence programme to achieve conflict-free supply chains.

In 2023 we did not identify any instances where tin, tungsten, tantalum and gold that are integrated into our products have supported armed groups in the DRC or adjoining countries (2022: nil). All our 3TG minerals are from Conflict Minerals compliant smelters.

Environmental management

It is important that our fabrication partners demonstrate responsible environmental standards. This is why, in line with our Environmental Compliance Policy, we only work with suppliers who are committed to environmental preservation, and who comply fully with environmental laws, regulations and industry environmental guidelines. We continue to work with our manufacturing partners to adopt advanced process technologies that aim to have an ever-decreasing impact on the environment.

It is vital that we can identify and safely manage hazardous materials. This includes the provision of relevant materials declarations under EU Directive 2011/65/EU (Restriction of Hazardous Substances or 'RoHS3') and the amendment EU Directive 2015/863. Our products are halide free, containing very low concentrations of halogens (fluorine, chlorine, bromine and iodine), well below the internationally suggested limits.

Our products are also fully compliant with EU Regulation (EC) 1907/2006 (Registration, Evaluation, Authorisation and Restriction of Chemicals, or 'REACH').

Forward focus 2024

- > Continue to deliver high levels of operational performance and maintain our average OTD.
- > Ongoing identification of possible areas of improvement.



Intellectual property

Context

The protection of intellectual property is vital for any business focused on the creation of innovative and high-value technological solutions.

Any failure in this regard could have profound consequences for the value of our inventions, products and our Company.

Furthermore, we have access to and work with our customers' intellectual property and/or commercial and technological secrets.

We recognise the high degree of trust that this requires on the part of our customers, and this reflects the value we seek to add in these relationships which we work hard to maintain.

Management approach

We are advancing wired connectivity technology for digital infrastructure. Given the rapid evolution of technology and increasingly demanding customer requirements, the sustainability of our business relies on us staying at the cutting edge. Our engineering teams seek to innovate in ways that grow the business, help our customers and keep the Group at the forefront of the connectivity market. As a result, we invest a significant amount into R&D. In FY 2023 we expensed US\$78.2m of R&D activities or 24% of revenue (FY 2022: US\$69.4m or 37% of revenue).

Our Chief Technology Officer (CTO) works with Alphawave Semi innovators to define our technology vision and roadmap and to drive innovation across the Group.

The CTO chairs the IP Committee, and its members include representatives from our Engineering, Marketing and Legal teams. The Committee meets on a monthly basis.

The IP Committee is responsible for:

- > advising the CTO on how to best combine trade secrets, patents and public disclosures to lead in a competitive environment; and
- > reviewing and ensuring the correct implementation of applicable policies and procedures.

We ensure that all intellectual property is safeguarded through the application of:

- > a dedicated Invention Disclosure Policy, as well as related procedures. The Invention Disclosure Policy is intended to ensure all innovation is recognised and properly managed;
- > an incentive policy for innovations submitted to the IP Committee as well as recognition awards;
- > a Public Technical Disclosure Policy, covering the regulation of public technical disclosures to standards bodies, consortia, customers, vendors, partners and other public venues;
- > related restrictive provisions in our contracts of employment;
- > robust information technology systems to prevent data leakage; and
- > access controls to specific project data for employees and third parties.

In line with our Company commitment to fostering innovation and supporting the next generation of innovators, each innovation disclosure submitted to the IP Committee by employees is considered for an innovation award. Recipients of these awards are recognised at an all-hands event with a commemorative plaque and US\$4,000 bonus shared equally among inventors.

Alphawave Semi innovation award

In 2023 the Group awarded its second innovation award. The award recognised four innovators for an invention that improves the robustness of our DSP for high-speed connectivity in some of the industry's most demanding applications. We look forward to recognising many more of the outstanding innovations across the Company in 2024 and beyond.



Intellectual property continued

Key issues and initiatives

Positive product impacts

The technology that we develop and market can be optimised to our customers' precise design needs, helping to bring applications to market quicker. Our multi-standard silicon IP solutions enable data transmission faster, more reliably and at lower power, offering proven solutions to many of the world's most complex connectivity challenges.

Being particularly energy intensive, the data centre industry accounts for 1-1.5% of global electricity use. The data centres and data transmission networks that underpin digitalisation accounted for around 300 Mt CO₂-eq in 2020, equivalent to 0.9% of energy-related GHG emissions or 0.6% of total GHG emissions¹. Connectivity accounts for 20% to 40% of the power in data centres, and our technology is helping to reduce it by approximately 25% to 40%.

Reliable and power-efficient data transmission sits at the core of industry efforts to improve energy efficiency and help reduce carbon emissions. As published by the Global Semiconductor Mobile Association in its State of the Industry on Climate Action 2022 report, AI, ML and virtualisation are helping to optimise power use in equipment, centralising network resources (enabling synergies) and avoiding unnecessary heating or air-conditioning². Our technology enables the flow of data necessary to enable this.

Our technology reduces the number of components needed in data centres and helps reduce power consumption in a number of ways:

- > the required reach (or distance of data transmission) enabled by our transceivers eliminates the need for additional receivers or retransmitters;
- > our R&D contributes to reduce the transceiver low power, which helps to keep the overall data centre power low;
- > achieving higher per-lane data rates (for example from 112G to 224G) as well as more advanced technology nodes (for example from 5nm to 3nm) significantly reduces the energy-per-bit transmitted. On average the adoption of a smaller manufacturing node achieves power savings of between 25% to over 40%³ compared to the previous node;
- > our chiplet architectures allow for new low-power computing architectures resulting in power savings of approximately 40% compared to monolithic products (HBM is less power intensive than DDR; more in-package integrated compute replaces chip-to-chip communication with ultra low-power die-to-die communication); and
- > our CXL and higher-speed PCIe allows for aggregation or sharing of memory or storage, reducing the amount of memory required for data centre compute by approximately 30%, lowering the environmental footprint of memory manufacturing.

1. IEA (2022), Data Centres and Data Transmission Networks, IEA, Paris <https://www.iea.org/reports/data-centres-and-data-transmission-networks>, License: CC BY 4.0.
 2. <https://www.gsma.com/betterfuture/wp-content/uploads/2022/05/Mobile-Net-Zero-State-of-the-Industry-on-Climate-Action-2022.pdf>.
 3. TSMC focuses on power and efficiency with the new 2nm node | Digital Trends; Samsung's 3nm chips reduce power consumption by up to 45% – Inceptive Mind.

Minimisation of negative product impacts

The nature of our integrated circuits means that their actual and potential negative impacts are relatively limited. Nonetheless, we design our products in a way that helps to minimise any negative impacts they might have over their lifecycle. This includes efforts to reduce the size of our integrated circuits, thus reducing the amount of input materials required.

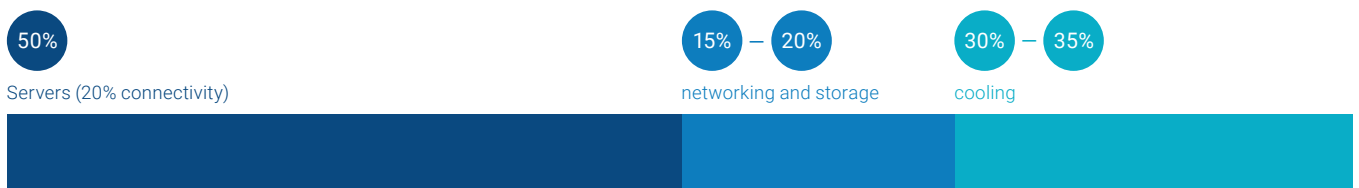
Focus areas in 2024

- > Ongoing development of technologies that enable AI.
- > Increase collaboration across teams to foster more innovation.

Investing in the future of AI compute

In 2023, we continued to invest in key connectivity technologies for AI compute, such as PCIe6 and PCIe7¹, CXL² and UCIe³ (Universal Chiplet Interconnect Express). These investments, in combination with our entry into the Arm Total Design ecosystem (see page 26), position us to be one of very few companies able to deliver optimised custom silicon for AI compute.

Power consumption breakdown in data centre



Power consumption associated with connectivity



20%-40%

of the data centre power consumption relates to connectivity.

25%-40% Savings

Our connectivity technology enables power savings of between 25%-40%. That is approximately 10% power savings of the overall data centre power consumption.

Source: Company

1. <https://pcisig.com>.
2. HOME | Compute Express Link.
3. Home | My Site (uciexpress.org).

Business ethics

Context

We work with leading-edge technologies and seek to establish long-lasting relationships with our customers, partners and suppliers.

Our Code of Ethics and Business Conduct guides:

- > adherence to technical, ethical and commercial requirements;
- > protection of our intellectual property; and
- > strict compliance with the national legislation of our host societies, including relevant anti-bribery and corruption laws.

Any breach of our legal obligations or our customers' and partners' trust has the potential to compromise our business, either in terms of the loss of valuable commercial relationships, loss of our reputation or the application of official sanctions.

Management approach

Our Code of Ethics and Business Conduct addresses a range of issues, including:

- > respect for the individual;
- > creating a culture of open and honest communication;
- > ethical and fair competition;
- > proprietary information;
- > conflicts of interest;
- > corporate record keeping;
- > protection of the Company's reputation; and
- > selective disclosure.

For further information on our policies see www.awavesemi.com. Our Code of Ethics and Business Conduct is also available at www.awavesemi.com.

Our Code of Ethics and Business Conduct is directly informed by international, industry and customer standards.

Responsibility for reviewing and updating the Code of Ethics and Business Conduct sits with our Chief Financial Officer.

Below we set out some of the additional issues we actively manage, in line with our corresponding policies.

Human and labour rights

Given the highly specialised nature of our industry, we believe our supply chain has relatively low levels of slavery and human trafficking risk. Our Policy Against Trafficking of Persons and Slavery reflects our ongoing commitment to a work environment that is free from human trafficking and slavery, including forced labour and unlawful child labour. The Company seeks to remain vigilant through compliance monitoring and verification, especially in selecting new suppliers.

For further details on our Policy Against Trafficking of Persons and Slavery see our website at www.awavesemi.com.

Anti-bribery and corruption

Compliance with global anti-bribery and corruption (ABC) legislation is vital to our approach to business dealings and forms the basis of our Anti-Bribery Policy. We uphold all laws relevant to countering bribery and corruption in all the jurisdictions in which we operate. However, we remain bound by the laws of the UK, including the Bribery Act 2010, in respect of our conduct both in the UK and abroad. Training on this policy forms part of the induction process for all new employees. Additionally, all employees are asked to formally accept conformance to the policy on an annual basis.

Responsibility for this framework sits with our Chief Financial Officer.

For further details see our Anti-Bribery and Corruption Policy at www.awavesemi.com.

Anti-fraud and dishonesty

Compliance with our Anti-Fraud and Dishonesty Policy ensures transparency and accountability in how our administrative processes are carried out and the decisions we make. This policy includes topics such as fraud, theft and abuse of position.

The Company seeks to foster honesty and integrity in its entire workforce. Directors and staff are expected to lead by example in adhering to policies, procedures and practices.



Equally, customers and external organisations (such as suppliers and contractors) are expected to act with integrity and without intent to commit fraud against the Company.

The Company provides clear routes by which concerns may be raised by Directors, employees and associates. For further details see our Anti-Fraud and Dishonesty Policy at www.awavesemi.com.

Whistleblowing

Employees or associates that suspect a potential issue including bribery, facilitation of tax evasion, fraud or other criminal activity, can report it to the confidential email address ombudsman@awavesemi.com or by contacting the Senior Independent Director. Employees or associated persons who report such issues in good faith will be supported by the Company. The Company seeks to ensure that the individual is not subjected to detrimental treatment as a consequence of his/her report and any instances of such behaviour will be treated as a disciplinary offence. Our Whistleblowing Policy is available to all employees.

In 2023 there was an incident reported through these whistleblowing channels (2022: no incidents). The Company engaged an independent third party to investigate the accuracy of the reported incident. The report was determined to be accurate and as a result the employment contract of one of our employees was immediately terminated.

In addition, the Company is planning to introduce increased background checks on contractors and third-party vendors.

Details can be found in the Company's Anti-Bribery and Whistleblowing Policy.

Overall responsibility for managing the risk of fraud sits with the Chief Financial Officer. Day-to-day responsibility has been delegated to the Senior Director of Group Finance who acts on behalf of the Chief Financial Officer.

For further details or to receive a copy of the policy please email info@awavesemi.com

Performance

In 2023, all new employees covered our Code of Ethics and Business Conduct as part of their induction. In addition, during the year, all employees were required to read and acknowledge our key policies.

During the year we updated our Policy Against Trafficking of Persons and Slavery and reviewed some of our key policies, such as the Anti-Fraud and Dishonesty Policy and our Anti-Bribery and Corruption Policy.

Focus areas in 2024

- > Annual review of relevant policies.
- > New Whistleblowing Policy.
- > Review of additional training requirements.



IT and cybersecurity

Key areas of focus in 2023

In 2023, our IT function successfully integrated our IT support systems, following two major business acquisitions in Q4 2022. This will help ensure seamless service delivery across our expanded enterprise. A major achievement was the integration of applications, where we streamlined multiple platforms into a unified suite, enhancing efficiency while optimising our licensing framework. This effort not only rationalised costs but also fostered a more cohesive user experience.

Our efforts are managed by our IT Director, who oversees a comprehensive, multidisciplinary programme involving information security, IT and physical security. The IT Director reports directly to the Senior Vice President, Engineering and regularly updates our Board of Directors on our cybersecurity performance and risk profile.

We have made significant progress on the integration of our network. We implemented Zero Trust VPN and Magic WAN products from Cloudflare, significantly enhancing our network infrastructure. This strategic implementation not only reduced costs and simplified operations but also enabled the Group to enforce robust network firewall policies across our global network, ensuring superior security and connectivity.

Central to our integration strategy was the implementation of centralised authentication and Single Sign-On (SSO) solutions, simplifying user access and further reinforcing security. In 2023, we also made considerable progress in safeguarding our digital assets and improving our IT infrastructure.

These steps towards implementing a unified IT infrastructure have significantly enhanced our operational resilience and positioned us to leverage technology for scalable growth.

Overview of cybersecurity landscape – management approach

Within our corporate security framework, Alphawave Semi upholds a detailed set of policies for information security management, aligned with the ISO/IEC 27001 standards. In addition, our cloud-based Software-as-a-Service (SaaS) applications are regularly audited to ensure adherence to various standards covering aspects such as security, availability, processing integrity, confidentiality and privacy.

We also engage in annual third-party penetration testing of our business and customer networks, along with continuous vulnerability scans of servers, applications, endpoints and network equipment. Any vulnerabilities categorised as critical, high or medium risks are addressed promptly. Moreover, we play an active role in global and professional groups focused on shaping future standards for a more secure, safe and privacy-conscious digital environment, such as the Institute of Electrical and Electronics Engineers.

Group-wide Security policies and IT controls are regularly reviewed and updated by the Security Council, which is chaired by our IT Director. Our policies seek to address the regulatory environment, including data privacy regulations, and to mitigate the evolving cybersecurity threat.

All our existing policies and procedures are assessed regularly by our external auditors, as well as third-party consultants. We maintain cyber-liability insurance that covers certain liabilities in connection with security breaches or related incidents.

In 2023, Alphawave Semi did not experience any material information security breaches (2022: zero). We also addressed cybersecurity scenarios in our resiliency planning and documented them through business continuity plans. Our Incident Response Programme facilitates an integrated response to potential cybersecurity events.



Security training and awareness

We are committed to regularly improving our employees' understanding and awareness of security and privacy matters. This is in response to the rising number of significant cyber-attacks, and with the aim of safeguarding the confidentiality and security of our employees, customers and other interested parties. This is achieved through:

- > implementing regular, quarterly email phishing exercises that encompass a large portion of our workforce, equipping them with essential skills for cyber self-defence; and
- > mandatory annual training sessions for all employees on data security and privacy awareness. These sessions include comprehensive coverage of topics such as cybersecurity, phishing, data protection and privacy concerns.

Focus areas in 2024

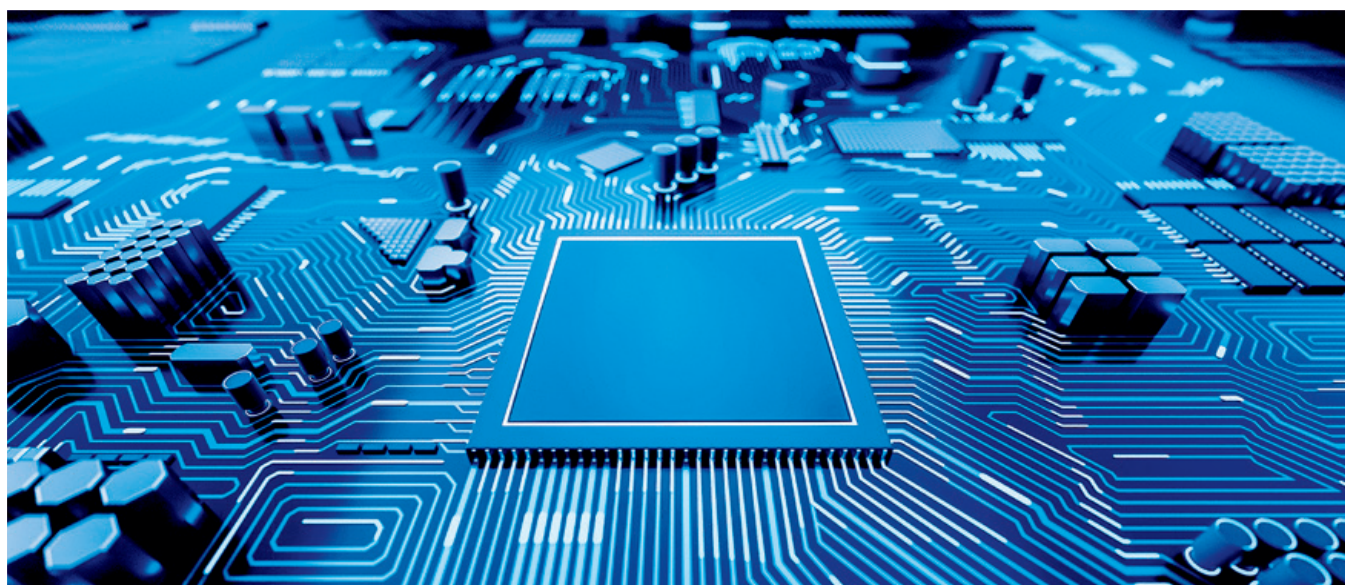
- > Formation of a dedicated Security team.
- > Rollout of a new enterprise system.

Our new Security team

In 2024, we plan to establish a dedicated team at the forefront of our cybersecurity initiatives, focusing on enhancing compliance and IT controls. Their expertise and specialised focus will enable us to implement more robust security measures, conduct in-depth risk assessments and respond more effectively to potential threats.

This is aligned with our broader goal of ensuring the highest levels of data protection and network security, thereby maintaining the trust and confidence of our clients and stakeholders.

We believe that these enhancements in our cybersecurity framework will significantly contribute to the resilience and success of our organisation in the digital era.



Community engagement

Context

2023 was the second year of our community engagement programme. As an organisation, it is important to us that we engage with the communities in which we operate.

Our corporate giving programme provides additional support by matching employee donations to local charities and organisations.

Our community engagement activities seek to improve the welfare of the communities where we work and live.

This programme creates a platform for our employees to donate their time and support to a range of local and not-for-profit organisations that are of interest to them.

Management approach

Our Community Involvement Global Council includes local representatives from all our locations, who meet remotely on a bi-monthly basis. The purpose of the Global Council is to ensure that local engagement is aligned with our principles and values, to co-ordinate Group-wide initiatives and to share experiences.

Responsibility at Group level sits with our Global Facilities Manager who is part of the People, Places and Culture function.

The goal of our community engagement programme is to support local and not-for-profit organisations that are of interest to our employees, promote the wellbeing of local residents and align with our corporate values, such as Inclusivity, Integrity and Collaborative (more information on our Culture is on page 4).

Key initiatives

In 2023, the Company donated approximately US\$37,000 globally to support local organisations and charities (FY 2022: US\$30,000).

Additionally, our internship programmes in India and Canada work with local universities and organisations to make a positive contribution to the promotion of science, technology, engineering and mathematics (STEM) education and careers in engineering. The objective of this effort is to support the next wave of innovators and expanding the talent pipeline. For more information see the Our People section.

In 2023 we rolled out Keen to Help, an external platform through which our employees can request and search for volunteer opportunities that are aligned with our Company values and community engagement programme goals.

In 2023, we also hosted our second 'bring your kids to work' day in Toronto and Ottawa. As in the prior year there were multiple creative activities with a link to science.

Alphawave Semi is partnering with the Dream School Foundation (DSF) in India, providing educational support to unprivileged children. Alphawave Semi and DSF initiated a new and effective programme named TYDE (Transformation Youth Development Engagement). This programme supports high school and college-going students and helps in their all-round development.

Forward focus areas in 2024

- > Track number of volunteering hours focused on community engagement activities.
- > Assign country-specific community engagement budgets.
- > Encourage employee participation through online tools that facilitate volunteering.



Alphawave Semi partnering with the Dream School Foundation in India

Alphawave Semi has partnered with the DSF in India, which provides educational support to underprivileged children. The DSF strives to break the cycle of socio-economic vulnerability faced by children and their families, and help them to help themselves through the power of education. It helps children and parents travel the path from 'schools to livelihood'.

Through TYDE we support students from socio-economically disadvantaged families. It helps students gain technological knowledge and skills. Alphawave Semi not only provides financial support but has been involved in the planning and design of the infrastructure and the selection of the equipment required. Our volunteers provide intensive mentoring and coaching as well as providing other support to students.



Non-financial information and sustainability statement

The Group complies with the non-financial reporting requirements in sections 414CA and 414CB of the Companies Act 2006. In 2023 we joined the UNGC. In this report we have mapped our business outputs and efforts to the United Nations Sustainable Development Goals (UN SDGs) and we aim to continue to focus our efforts on those goals. Our approach to SDG mapping is set out on pages 36 and 37.

Reporting requirements	Policies and standards that inform our approach	Outcomes of the policies
Environmental matters	<ul style="list-style-type: none"> > Environmental Compliance Policy (Supply Chain). 	Page 50
TCFD and Companies Act climate-related financial disclosures	<ul style="list-style-type: none"> > TCFD framework. > Companies Act climate-related financial disclosures. 	Pages 44 to 48 Appendix
Employees	<ul style="list-style-type: none"> > Code of Ethics and Business Conduct. > Our culture and values. > Country-specific HR policies. 	Our People and culture, pages 38 to 43
Human rights	<ul style="list-style-type: none"> > Code of Ethics and Business Conduct. > Equal Opportunities and Dignity at Work Policy. > Right to Disconnect Policy. > Workplace Violence, Harassment and Discrimination Policy. > Accessibility Plan (Canada). > Policy Against Trafficking of Persons and Slavery. > Conflict Free Minerals Sourcing Policy (website). > ISO 9001:2015 (supply chain; website). 	Our People, pages 38 to 43; Supply Chain, pages 49 and 50
Social matters	<ul style="list-style-type: none"> > ESG Policy. 	Societal benefits including community engagement on pages 58 and 59

Reporting requirements

Policies and standards that inform our approach

Outcomes of the policies

Anti-corruption and anti-bribery	<ul style="list-style-type: none"> > Code of Ethics and Business Conduct. > Policy Against Trafficking of Persons and Slavery. > Anti-Bribery Policy. > Anti-Fraud and Dishonesty Policy. > Anti-Money Laundering Policy. > Whistleblowing Policy. > Conflict Free Minerals Sourcing Policy (website). 	Business Ethics, pages 54 and 55
Business model	<ul style="list-style-type: none"> > N/A. 	Business Model pages 14 to 17
Principal risks and uncertainties	<ul style="list-style-type: none"> > Confidential Information and IP Policy. > IT Disaster Recovery Plan. > IT Incident Management Policy. > Risk Management Policy. 	Pages 56, 57 and 74
Non-financial KPIs	<ul style="list-style-type: none"> > SASB. > UNGC. > UN SDGs. 	Managing our resources and relationships, page 34
Tax strategy	<p>We recognise our social responsibility to pay tax in the jurisdictions in which we operate. We act with full transparency and integrity in all of our tax matters and our tax planning supports our commercial activities. We are committed to remaining compliant with all applicable tax laws and practices.</p>	

KPIs

Through our KPIs we monitor our sales and financial performance, as well as our pool of talent, as it is vital for a business built on innovation. These KPIs allow us to track our performance against our long-term objectives.

Non-financial

Employee turnover (%)



Link to strategy:



Description:

Number of voluntary leavers in the last twelve months divided by the average headcount during that period expressed as a percentage. Monitoring our ability to recruit and retain experienced engineering and commercial professionals is vital given the strong competition for skills in the sector, ageing population and our business growth ambitions.

Performance:

Turnover in 2023 was 7% compared to 10% in 2022 and 7% in 2021. Due to the acquisitions in 2022, data for India and Israel was included from 1 September and 13 October 2022, respectively. Our ability to recruit and retain engineering professionals remained high. The Company has a performance management system to ensure we reward our best employees through appropriate mechanisms.

Engineering R&D¹ (%)



Link to strategy:



Description:

Number of employees working in research and development and related functions as a percentage of total employees as of the end of the reporting period expressed as a percentage. This KPI provides a snapshot of our engineering talent and our capacity for innovation, which is a key component of our strategy.

Performance:

In 2023, the percentage of employees working in research and development remained stable at 89% (FY 2022: 89%). FY 2022 included R&D employees who joined the business through the acquisitions of Precise-ITC, OpenFive and Banias Labs.

- Technology leadership
- Expansion
- Innovation

1. Headcount numbers throughout the report exclude interns. In FY 2021 there were five interns who were previously reported as R&D headcount.

Our key performance indicators seek to ensure performance is aligned with our strategy as well as the key interests of our stakeholders. Additionally, the Company works with a wide range of metrics covering different aspects of our business activities.

Bookings¹ (US\$m)

2023	US\$383.9m
2022	US\$228.1m
2021	US\$244.7m

Link to strategy:



Description:

Bookings are a non-IFRS measure representing legally binding and largely non-cancellable commitments by customers to license our technology. Our bookings comprise licence fees, non-recurring engineering support and, in some instances, our estimate of potential future royalties. A portion of our bookings may not convert to revenue if those royalties do not materialise or customers are unable to pay us.

Performance:

In 2023, bookings were up 68% over the prior year (FY 2022: US\$228.1m). The combined bookings from North American, EMEA and APAC customers represented 75% of the Group bookings in 2023 (FY 2022: 61%). China represented 7% of the licence and NRE bookings in FY 2023 (FY 2022: 10%). In 2021 we signed two multi-year subscription deals adding up to US\$147.8m.

Backlog excluding royalties (US\$m)

2023	US\$354.9m
2022	US\$379.7m
2021	US\$168.6m

Link to strategy:



Description:

Backlog is a non-IFRS measure representing our bookings less revenues recognised to date. It represents the revenue that we expect to collect in future years based only on our existing and legally binding orders. As new bookings are secured, our backlog will increase and as existing bookings are recognised as revenue, our backlog will decrease.

Performance:

Backlog, excluding royalties, decreased by 7%. This was mainly driven by adjustments and bookings cancellations of approximately US\$87m. Nearly half of the adjustments and bookings cancellations were part of the backlog acquired through OpenFive of which over US\$100m had not been recognised at the end of 2022.

1. Including estimates of potential future royalties totalling US\$15.1m in FY 2022 and US\$24.0m in FY 2021. Royalties are estimated based on contractually committed royalty pre-payments on commencement of customer silicon shipments or, in limited instances, on sensitised volume estimates provided by customers.

Non-financial continued

End-customers



Link to strategy:



Description:

End-customers is a non-IFRS measure representing the number of unique end-customers that we recognise revenue from, and are therefore actively engaged with, during the year. Winning new customers reflects our ability to execute against our strategy and continue to innovate.

Performance:

Through organic growth and acquisitions we significantly increased the number of revenue-generating customers over the last three years. The number of revenue-generating end-customers increased from 80 in FY 2022 to 103 in FY 2023. During the year we also won repeat business from many of our customers.

-  Technology leadership
-  Expansion
-  Innovation

Financial

Revenue (US\$m)



Link to strategy:



Description:

Our revenue is an IFRS financial measure and demonstrates our ability to execute against our bookings. For our licence bookings, our revenue is primarily recognised on a percentage of completion basis as we execute against contractual milestones. Our contracts are highly negotiated and invoicing and cash collection may lead or lag revenue recognition.

Performance:

We delivered 74% revenue growth in FY 2023, driven largely in China and North America. This was the result of organic growth as well as the revenue contribution from the acquisition of OpenFive.

Adjusted EBITDA¹ (US\$m) and margin

2023	US\$62.6m 19%
2022	US\$46.8m 25%
2021	US\$51.8m 58%

Link to strategy:



Description:

Adjusted EBITDA is a non-IFRS financial measure defined as the Group's earnings before interest, taxation, depreciation and amortisation, adjusted to remove share-based payment charges and non-recurring operating expenses such as IPO-related costs (in 2021) and advisory costs associated with acquisitions. Adjusted EBITDA is reconciled in note 4 Alternative performance measures (APMs).

Performance:

Adjusted EBITDA increased by 34% in FY 2023, driven mainly by the increase in revenue growth and higher operating expenses related to the higher headcount and scale-up our operations to support future revenue growth. Adjusted EBITDA margin was below FY 2022 at 19%.

Cash generated from operations² (US\$m)

2023	US\$25.5m
2022	US\$1.0m
2021	US\$26.5m

Link to strategy:



Description:

Cash generated from operations is a IFRS financial measure and demonstrates our ability to convert operating profit into cash. Pre-tax operating cash flow is based on our pre-tax profit, adding back non-cash items, such as depreciation, and reflecting changes in our working capital.

Performance:

In FY 2023 cash generated from operations was US\$25.5m compared to US\$1.0m in FY 2022 (restated). In 2022 there were one-time payments of approximately US\$6.0m relating to M&A and professional fees and included US\$28.2m of cash outflows related to deferred compensation payable as part of the acquisitions of Precise-ITC and Banias.

- Adjusted EBITDA excludes IPO-related non-recurring costs, foreign exchange adjustments, share-based payments, M&A transaction expenses and one-time legal fees associated with WiseWave. See Alternative Performance Measures section.
- FY 2022 has been restated to reflect the finalisation of the purchase price allocation on the acquisition of OpenFive (see notes 12 and 30).

Financial review



In 2023 we delivered another year of strong revenue growth, up 74% and continued to invest in our leading-edge engineering capabilities. As a vertically integrated business we are well positioned to benefit from the long-term investment in AI and digital infrastructure.

Tony Pialis

Chief Executive Officer

Investing in future revenue growth

In 2023 we consolidated the teams and technologies we acquired in 2022 and became a vertically integrated global semiconductor company. Alphawave Semi is one of the few companies in the world bringing a full portfolio of connectivity IP for AI and digital infrastructure.

Building on the strength of our technology portfolio, we have successfully transformed our custom silicon pipeline to a higher margin business focused on AI and data centre solutions in advanced nodes. Our connectivity solutions meet the increasingly complex bandwidth, latency and power requirements critical to support the adoption of artificial intelligence. With our enhanced product portfolio and silicon expertise, we can access a larger and high-growth addressable market of approximately US\$18bn by 2026, gaining greater scale and enhancing our competitive position.

During this transition year, we achieved record bookings of US\$383.9m. 71% of these bookings came from IP licencing and advanced node custom silicon NRE contracts with North American, European and APAC (non-China) customers. The remaining 29% came from the legacy lower margin business we acquired in 2022. The custom silicon contracts that we signed in 2023 give us visibility to a potential lifetime revenue from silicon production of approximately US\$500m, which is not yet reflected in our bookings or backlog. First silicon production orders from these contracts are expected in 2025.

Our financial performance was below our guidance for the year both on revenue and adjusted EBITDA, mainly due to our accelerated transition away from our legacy custom silicon business in China and the timing of revenue recognition on long-term contracts in advanced nodes combined with our continuing investment in advanced research and development. Revenue grew 74% year-on-year from US\$185.4m to US\$321.7m and we delivered an adjusted EBITDA margin of 19%, down 6% from 2022.

In 2023 we expensed US\$78.2m in the development of products which will go into production in future years and will contribute to accelerated revenue growth over the medium term. The strong investment in our new opto-electronic products and future revenue growth is reflected in the lower cash and cash equivalents balance at the end of 2023 of US\$101.3m (compared with US\$186.2m at the end of 2022).

2024 will be another year of growth for the Group as we lay the foundations towards our longer-term strategic and financial targets. I am confident that with prudent financial management and the successful execution of our product roadmaps and customer engagements we are on track to become the next great global semiconductor company.

Contracted order book and backlog

2023 bookings totalled US\$383.9m, of which US\$274.0m represented IP licensing and NRE orders and US\$109.9m represented royalty and silicon orders. This compares to US\$228.1m of total bookings in 2022. Bookings grew 68% year-on-year, comprising 109% growth in licensing and NRE orders and 14% growth in royalty and silicon orders. The performance in our royalty and silicon orders was driven by silicon orders in our custom silicon group following the acquisition of OpenFive.

North America was the largest contributor to bookings in 2023, representing 34% of the total. It was followed by 25% from China, 21% from APAC and 20% from EMEA excluding China. Our China bookings in the period were largely driven by custom silicon orders from customers acquired through the acquisition of OpenFive.

Backlog represents the value of contracted bookings over the life of the Group not yet recognised as revenue, excluding potential royalties. At the end of 2023, our backlog was US\$354.9m, 7% lower than the backlog at the end of 2022 of US\$379.7m. Backlog reduced year-on-year due to adjustments of US\$87.3m, of which nearly half came from the backlog acquired with OpenFive.

Revenues

Revenues for 2023 reached US\$321.7m, 74% growth compared to US\$185.4m in 2022:

- > customers – in 2023, we recognised revenues from 103 end-customers, compared to 80 end-customers in 2022. This included new tier-one customers licensing our IP as well as legacy customers acquired in 2022. End-customer revenue concentration marginally decreased during the year. Our top five end-customers generated 46% of our 2023 revenues (2022: 47%) or 42% excluding revenues from the WiseWave subscription deal (2022: 39%); and
- > regions – in addition to WiseWave and VeriSilicon, the contribution in 2023 from China (59%) was driven by legacy custom silicon business. Absent this, our regional mix was comparable to 2022. Over the long term, as silicon product revenues ramp with hyperscalers and other large, predominantly North American, customers, we expect the mix of China revenues to gradually decrease to 10% of sales or lower.

North American revenues grew 60% from US\$51.4m in 2022 to US\$82.2m in 2023, and APAC (excluding China) revenues grew 97% from US\$17.0m in 2022 to US\$33.5m in 2023. We also saw EMEA revenue grow 28% from US\$12.3m in 2022 to US\$15.7m in 2023.

We recognised a small amount of royalty revenue in 2023 based on early production volumes from a specific customer. Given the long design cycles at our customers, we expect royalties to gradually increase and contribute to earnings in the medium term. Further, as we seek to monetise our IP through silicon and achieve greater revenue scale and higher absolute earnings, we expect the contribution from IP royalties to be less significant to our Group results.

Income Statement

US\$m	IFRS		Adjusted	
	2023	2022	2023	2022
Revenue	321.7	185.4	n/a	n/a
Cost of sales	(156.4)	(60.8)	n/a	n/a
Gross profit	165.3	124.6	n/a	n/a
Gross margin	51%	67%	n/a	n/a
EBITDA	9.8	49.3	62.6	46.8
EBITDA margin	3%	27%	19%	25%
Operating (loss)/profit	(19.4)	37.6	n/a	n/a
Operating margin	(6%)	20%	n/a	n/a
(Loss)/profit before tax	(39.5)	17.2	n/a	n/a
Net (loss)/profit	(51.0)	(1.1)	11.3	6.7
Basic EPS (US\$ cents)	(7.23)	(0.16)	1.59	0.98
Diluted EPS (US\$ cents)	(7.23)	(0.16)	1.59	0.98
Cash generated from operations	25.5	1.0	n/a	n/a

1. For definitions of non-IFRS measures see KPIs on page 62 and alternative performance measures section on page 186.

Adjusted EBITDA

US\$m	Year ended 31 December	
	2023 US\$m	2022 US\$m
Net loss	(51.0)	(1.1)
Add/(deduct):		
Finance income	(3.4)	(1.7)
Finance expense	8.8	3.6
Loss from joint venture	14.7	18.5
Income tax expense	11.5	18.3
Depreciation and amortisation	29.2	11.7
EBITDA	9.8	49.3
Add/(deduct):		
Acquisition-related costs	0.7	12.7
Compensation element of Banias deferred cash rights	8.4	1.7
Remeasurement of contingent consideration payable for Precise-ITC	0.0	4.2
Share-based compensation expense	40.7	15.7
Currency translation loss/(gain)	3.0	(36.8)
Adjusted EBITDA	62.6	46.8

Operating expenses and profitability

Gross margin in 2023 was 51%, with cost of sales primarily reflecting silicon manufacturing costs and custom silicon development costs, as well as sales and reseller commissions on IP sales. In 2022, gross margin was 67%, driven predominantly by our IP business before acquisitions. Gross margin in 2023 reflects the diversification of our business into custom silicon development and silicon products. Through the acquisition of OpenFive, we inherited a number of contracts where gross margins are below our Group targets.

EBITDA¹ in 2023 was US\$9.8m (3% margin) compared to US\$49.3m in 2022 (27% margin). On an adjusted basis, EBITDA in 2023 was US\$62.6m (19% margin) compared to US\$46.8m (25% margin) in 2022. The decrease in adjusted EBITDA margin reflects the early stage of our migration to a combined IP licensing and silicon business model through our acquisitions and the scaling of our engineering capabilities. Adjusted EBITDA was below our guidance for 2023. This was driven by a combination of low-margin silicon sales from legacy OpenFive contracts and increased investment in R&D activities.

Reflecting the continued scaling of the business and our acquisitions, operating expenses in 2023 were US\$184.7m compared to US\$87.0m in 2022.

Research and development (R&D) expenses in 2023 were US\$78.2m (24% of revenue) compared to US\$69.4m (37% of revenue) in 2022. In 2023, R&D expenses included US\$12.7m amortisation of acquired intangibles (US\$5.5m in 2022). In 2023 we capitalised US\$54.5m related to our own product development activities, compared to \$7.2m in 2022, the increase reflecting the growth in investment in our own product development.

Sales and marketing (S&M) expenses in 2023 were US\$12.8m (4% of revenue) compared to US\$4.6m (3% of revenue) in 2022.

General and administrative (G&A) expenses in 2023 were US\$40.8m (13% of revenue) compared to US\$15.5m (8% of revenue) in 2022. G&A expenses in 2023 included an expected credit loss of US\$7.3m based on our assessment of our potential credit loss on overdue invoices and accrued revenues (US\$2.2m in 2022). Excluding this, our G&A expenses for 2023 were US\$33.5m, or 10% of revenue (US\$13.3m, or 7% of revenue in 2022).

The year-on-year increase in R&D, S&M and G&A expenses was primarily due to the increase in headcount from 695 full-time employees at end 2022 to 829 at end 2023, together with associated software tool costs which scale with our R&D headcount. In addition, we invested in our support functions and continue to scale our finance, HR, legal and corporate marketing teams, reflecting the increased complexity and geographical spread of the Group to support our transition to a vertically integrated semiconductor company.

In the medium term, we anticipate modest growth in our headcount as we address the opportunities ahead.

Other expenses in 2023 totalled a US\$52.9m. Share-based payment costs of US\$40.7m in 2023 reflect our increased headcount, as well as one-time grants awarded to new members of the senior management team who joined us in 2023 and the payment of the 2023 employee bonus in shares rather than in cash. Exchange losses in 2023 were US\$3.0m. US\$8.4m of other expenses in 2023 related to deferred cash rights for the former Banias Labs employees.

Other expenses in 2022 totalled a credit of US\$2.5m, comprising M&A and professional costs of US\$12.7m related to the acquisitions and the debt funding, US\$15.7m share-based payment costs, US\$1.7m of deferred cash rights for the former Banias Labs employees and US\$36.8m of exchange gains.

Operating loss was US\$19.4m in 2023, compared to an operating profit of US\$37.6m in 2022 and reflected the decrease in gross margin and increases in operating expenditures described above.

1. For definitions of non-IFRS measures see KPIs on page 62 and alternative performance measures section on page 186.

Finance income in 2023 was US\$3.4m, compared to US\$1.7m in 2022. The increase was largely driven by cash balances being invested in interest-bearing accounts and higher interest rates.

Finance expense in 2023 was US\$8.8m, higher than the US\$3.6m in 2022 due to interest associated with the five-year Term Loan obtained in October 2022. US\$9.5m of finance expense was capitalised in 2023 as it related to qualifying intangible assets.

Share of the post-tax loss of equity-accounted joint ventures was US\$14.7m in 2023, compared to US\$18.5m in 2022.

At the end of 2023, the Group owned 42.5% of WiseWave (compared to 42.5% at the end of 2022), a company established in China in Q4 2021 to develop and sell silicon products incorporating silicon IP licensed from the Group. We equity account for the investment as a joint venture, resulting in a US\$14.7m loss in 2023 (US\$18.5m loss in 2022). The five-year subscription licence agreement is being capitalised and amortised over the life of the agreement by WiseWave.

Tax expense in 2023 was US\$11.5m, being 29% of loss before tax of US\$39.5m.

In 2023 we incurred a net loss of US\$51.0m compared to US\$1.1m loss for the year in 2022.

On an adjusted basis, net profit in 2023 was US\$11.9m, compared to US\$6.7m in 2022.

The exchange gain of US\$10.2m in other comprehensive income is predominantly a result of the Company, a GBP-denominated entity, having net assets translated into USD, our presentational currency. This is re-translated again for presentational purposes into USD at the year end.

Balance sheet, liquidity and cash flow

At the end of 2023, we held US\$101.3m in cash and cash equivalents and had borrowings of US\$220.4m, comprising a Revolving Credit Facility of US\$125.0m, a Term Loan of US\$93.8m and other long-term borrowings of US\$1.6m. During 2023, our net debt position increased from US\$24.0m to a net debt position of US\$119.1m as we continued to invest in our business.

During 2023 current trade and other receivables increased from US\$47.1m to US\$75.6m. This change was primarily due to timing of advance payments to foundries to reserve fab capacity and other prepayments.

Contract assets, where revenue recognition conditions are met under IFRS 15, but we have not billed or collected any amount, increased from US\$57.0m at the end of 2022 to US\$65.2m at the end of 2023. This increase was a function of our revenue growth and the timing of invoicing milestones on specific contracts, primarily for our IP sales. WiseWave accounted for US\$42.4m of the contract asset balance at the end of 2023 (2022: US\$16.8m).

At the end of 2023 we held physical inventory of silicon devices with a value of US\$11.6m (2022: US\$18.1m). The decrease reflects the fulfilment in 2023 of a large number of silicon orders booked in 2022.

Current income tax receivables increased from US\$2.9m in 2022 to US\$23.5m in 2023 and other current assets decreased from US\$71.5m in 2022 to US\$19.0m in 2023. The significant decrease in other current assets came from a reduction in prepayments which were unusually high at the end of 2022 due to payments made to foundries for silicon production that occurred in 2023.

We ended 2023 with aggregate goodwill of US\$309.2m from the acquisitions of Precise-ITC, OpenFive and Banias Labs. Aggregate goodwill has decreased from our provisional estimate of US\$331.9m in 2022, following the finalisation of the purchase price adjustment for OpenFive and Alphawave Semi making a Section 338 election which allowed the OpenFive acquisition to be treated as an asset deal for US tax purposes. US\$10.3m of the decrease in goodwill relates to the Section 338 election which reduced deferred tax liabilities by US\$15.9m and increased consideration by US\$5.6m. US\$12.4m of the decrease in goodwill relates to the finalisation of the arbitration process to determine the final consideration due for the OpenFive acquisition.

At the end of 2023 the carrying amount of other intangible assets was US\$203.3m (2022: US\$161.4m). This balance is primarily due to the technology and IP acquired with OpenFive and Banias Labs and the capitalisation of our own development expenditure.

Owned property and equipment increased from US\$13.4m at the end of 2022 to US\$20.7m at the end of 2023 due to increased expenditure on laboratory equipment and prototyping. Leased property and equipment increased slightly from US\$14.6m at the end of 2022 to US\$15.3m at the end of 2023.

Investments in equity-accounted associates, namely the value of the investment in WiseWave, remains US\$nil, 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 into the business. In 2023 we invested US\$1.0m in an Israeli semiconductor company.

During 2023, current trade and other payables decreased from US\$88.7m to US\$69.3m. This decrease was predominantly due to timing differences of payments to vendors.

Contract liabilities, where we have invoiced or received money for products or services where revenue recognition conditions are not met, decreased from US\$96.9m at the end of 2022 to US\$56.0m at the end of 2023. This decrease was due to the high order intake for custom silicon products at the end of 2022 where customers were required to make advance payment ahead of silicon being shipped to them in the first half of 2023.

Summary balance sheet

US\$m	31 December 2023	Restated ¹ 31 December 2022
Assets		
Cash and cash equivalents	101.3	186.2
Other current assets	194.9	196.6
Total current assets	296.2	382.8
Goodwill	309.2	309.2
Other intangible assets	203.3	161.4
Other non-current assets	45.8	47.2
Deferred tax assets	12.1	2.7
Total non-current assets	570.4	520.5
Total assets	866.6	903.3
Liabilities and equity		
Total current liabilities	136.6	194.4
Loans and borrowings	214.8	205.2
Other non-current liabilities	46.7	35.5
Total non-current liabilities	261.5	240.7
Total liabilities	398.1	435.1
Total equity	468.5	468.2
Total liabilities and equity	866.6	903.3

1. Restated to reflect the finalisation of the purchase price allocation on the acquisition of OpenFive (see notes 12 and 30).

Balance sheet, liquidity and cash flow

At the end of 2023, our current and non-current loans and borrowings were US\$220.4m, an increase of US\$10.2m from 2022 as a result of drawing down an additional US\$15.0m against the revolving credit facility and repayments of the term loan principal.

In 2023, we generated cash from operations of US\$25.5m compared with US\$1.0m in 2022. In 2022 there were one-time payments of approximately US\$6.0m relating to M&A and professional fees. Also, our operating cash flow in 2022 included US\$28.2m of cash outflows related to deferred compensation payable as part of the acquisitions of Precise-ITC and Banias. These are attributable to payments made as part of the acquisitions that do not represent consideration, but are classified as compensation payments in lieu of share-based remuneration or payments conditional on continued employment with the Group. These payments are included within working capital. Excluding these, our operating cash flow before tax in 2022 was US\$29.2m.

Working capital in 2022 decreased by US\$50.1m, compared to a decrease of US\$41.7m in 2023. The decrease in working capital in 2023 was primarily due to an increase in trade and other receivables and a decrease in contract liabilities, offset by an increase in trade and other payables.

Income tax paid in 2023 was US\$9.7m, compared to US\$19.9m in 2022.

In 2023, the Group generated a cash inflow from operating activities of US\$15.8m, compared to a cash outflow of US\$18.9m in 2022, due to increased cash generation from operations and lower tax payments in 2023.

Capital expenditure during 2023 totalled US\$73.6m (2022: US\$15.5m), comprising US\$18.6m of property and equipment (2022: US\$4.2m), US\$1.8m of intangible assets (2022: US\$4.1m) and US\$53.3m of capitalised development expenditure (2022: US\$7.2m). US\$6.9m of property and equipment relates to purchases of lab and test equipment which grew from US\$0.1m in 2022 as we ramp our own product development capabilities.

In 2023, we also made further equity investments into WiseWave totalling US\$14.7m, with Wise Road Capital contributing US\$19.9m. As disclosed in our IPO Prospectus, Alphawave Semi has the ability to invest up to US\$170m in total into WiseWave, although our expectation is that any future investment will continue to be limited. We are seeking to exit our equity investment in WiseWave in 2024 but we will time this exit based on market conditions to maximise return to shareholders.

During the second quarter of 2023, the Group's Fixed Charges Coverage Ratio (FCCR), one of the covenants in its borrowing arrangements, was below the minimum allowed ratio of 1.25x, principally due to a higher working capital requirement as a result of a significant reduction in contract liabilities, a higher proportion of lower margin silicon revenue at the beginning of the year and increased investment in research and development activities, as anticipated, as the Group invests in its own products business. On 22 September 2023, we established an amendment to the Credit Agreement with the lenders which suspended the FCCR ratio for the period from the quarter ended 30 June 2023 to the quarter ending 30 June 2024, after which it is set at 1.1x until the quarter ending 30 September 2025 when it reverts to 1.25x. As we continue to invest in growth and scale, we continue to closely monitor our cash flow to ensure we maintain full compliance with our debt covenants.

The Company's capital allocation policy remains focused on investment in own product development and prototyping, critical hires and expertise to support growth opportunities, and management of our debt position in a changing interest rate environment. We do not intend to pay dividends or make significant acquisitions in the short or medium term. We continue to review our capital allocation framework and available sources of capital to support our long-term growth strategy.

Finally, as further detailed on page 140, the Directors have adopted the going concern basis of accounting.

Summary cash flow

US\$m	31 December 2023	Restated ¹ 31 December 2022
Cash generated from operations before changes in working capital	67.3	51.0
Changes in working capital	(41.7)	(50.1)
Cash generated from operations	25.5	1.0
Taxes paid	(9.7)	(19.9)
Cash flow from operating activities	15.8	(18.9)
Capital expenditure	(73.6)	(15.5)
Investment in joint venture	(14.7)	(9.1)
Purchase of businesses	(7.4)	(403.6)
Drawdown of loans and borrowings	15.0	210.0
Interest paid	(18.4)	(0.7)
Interest received	3.1	1.3
Other cash flows	(8.6)	(3.4)
Net decrease in cash and cash equivalents	(88.8)	(239.9)
Cash and cash equivalents at the beginning of the year	186.2	501.0
Currency translation gain/(loss) on cash and cash equivalents	3.9	(74.9)
Cash and cash equivalents at the end of the year	101.3	186.2

1. Restated to reflect the finalisation of the purchase price allocation on the acquisition of OpenFive (see notes 12 and 30).

Tony Pialis

Chief Executive Officer
23 April 2024

Viability Statement

As required by the UK Corporate Governance Code, the Directors have assessed the viability and prospects of the Group over an appropriate period, significantly longer than twelve months from approval of these financial statements.

In assessing the Group's prospects, the Directors have considered the recent financial performance, the current financial position and the Group's strategy, business model and principal risks and uncertainties.

The Group's viability and prospects are primarily assessed on the basis of the Group's strategic planning process, which includes a bi-annual review of quarterly revenues, profitability and cash flow over three years. The budgeting and planning process is led by the Chief Executive Officer and the Chief Financial Officer along with the relevant group function leads.

Financial year 2024 is based upon the Group's budget. Financial years 2025 and 2026 are based on extrapolation of operating expenses and key balance sheet and cash flow ratios, with revenue estimates based on the same methodology as our budgeting process. Our revenue forecasting is based on order intake across different product lines and contract types with revenue recognition assumptions based on a range of sensitivities including timing of IP delivery and key ASIC development milestones.

Our funding position is considered in terms of our liquidity headroom and compliance with debt covenants.

In considering the viability prospects of the Group, the Directors have had regard to the following characteristics of the business:

- > Alphawave is a fast-growing semiconductor business with tier-one customers, a high level of repeat customer business and a strong order backlog, including multi-year contractual commitments from customers;
- > our customers include many of the largest technology and semiconductor companies in the world and each contract for IP or ASIC design services is typically worth several million US dollars over the life of the contract;
- > our own-products business is in its infancy and requires ongoing investment to secure significant future revenue growth; and

- > the business is undergoing a transformation from a pure IP business to a vertically integrated semiconductor company and is transitioning its acquired ASIC business to chip designs in leading-edge manufacturing nodes.

Viability assessment period

The Directors have determined that a period of three years over which to assess the Group's longer-term viability is appropriate and reasonable based on the following:

- > it aligns with the Group's internal strategic planning process;
- > it sufficiently accommodates the Group's evolving financial profile and appropriately models the ongoing impact of the Group's acquisitions, including the near-term period as the Group transitions from some of the lower margin legacy business from the OpenFive acquisition; and
- > a period in excess of three years is regarded as less meaningful in view of the rapid evolution of the Group, nascency of the Group's own product offering and the fast pace of the market environment.

Assessment of viability and scenarios modelled

The Directors' assessment of viability builds upon the analysis performed to support the going concern assessment and incorporates additional scenarios, regarded as severe or extreme but plausible, that may be encountered over the three-year assessment period. These scenarios are intended to quantify the potential impact of one or more of the Group's principal risks and uncertainties, as set out on pages 74 to 77, materialising over the three-year assessment period. While each principal risk and uncertainty has been considered as part of this assessment, we have only considered those that represent a severe but plausible scenario.

We have modelled the two stress test scenarios below. Our scenario modelling does not consider a range of additional measures, including further significant reductions in operating expenses or additional financing, which management could implement to mitigate against a severe reduction in revenues. Both scenarios assume that no discretionary employee bonuses would be paid and that our term loan and revolving credit facility are settled in full on their maturity in Q4 2027.

Scenario modelled

1. 25% reduction in revenues and increase in borrowing costs

We have modelled all revenue streams reducing by 25% from our base case plan over the assessment period.

We assume that operating expenditures are reduced by 20% and expenditure on lab equipment and prototyping is reduced by 50% to mitigate the reduction in revenues.

Interest on our debt is assumed to increase by 200 basis points from the start of the assessment period.

We assume no further investment in WiseWave and no sale of our stake in WiseWave during the assessment period.

2. Geopolitical environment impacts our strategy in China

We have modelled that the Group generates no revenues from customers in China over the assessment period.

We assume that operating expenditures are reduced by 15% to mitigate the reduction in revenues.

We assume no further investment in WiseWave and no sale of our stake in WiseWave during the assessment period.

Principal risks included

- > Managing our growth.
 - > Competition and failure to maintain our technology leadership.
 - > Customer dependence.
 - > Customer demand.
-
- > Managing our growth.
 - > Risks associated with WiseWave.
 - > External environment and events.
 - > Customer demand.

In each of these scenarios, the Group is forecast to have sufficient resources to continue to meet its liabilities as they fall due without recourse to further cost saving actions. In reality, as highlighted above, the Group would have numerous additional options available to maintain its financial position. When the scenarios are combined, Group revenues would almost halve from 2024 to 2027. In such a situation, it would be reasonable to assume the Group would take further actions to reduce costs, commensurate with the reduction in revenues. Under the combined scenario, assuming a mitigating action of reducing operating expenditure by 35%, the Group is forecast to have sufficient resources to continue to meet its obligations as they fall due over the viability assessment period.

Confirmation of longer-term viability

Based on the assessments above and in accordance with the UK Corporate Governance Code, the Directors confirm that they have assessed the prospects and viability of the Group over a three-year period and have a reasonable expectation that the Group will continue in operation and meet its liabilities as they fall due over this period.

Principal risks

The Group faces a number of risks and uncertainties that may have an impact on our operations and performance.

The risks and uncertainties are regularly assessed by the Directors and are summarised below. These reflect the risks in the business as we expand our addressable market, both organically and through acquisition, into providing silicon in addition to IP. The principal risks and uncertainties affecting the Group are summarised on the next page.

Risk management framework

The active management of risk is integral to meeting our strategic objectives. We operate a risk management framework which aims to identify, assess and mitigate potential risks. Our effective management of risk is shaped and governed by our Board and executive management team.

Risk appetite

We assess risk by combining the likelihood of something happening and the impact that arises if it does happen. The Board regularly reviews and discusses our risk register and determines the level of risk appetite, this being the amount of risk the Board is willing to allow the business to assume in pursuit of its objectives.

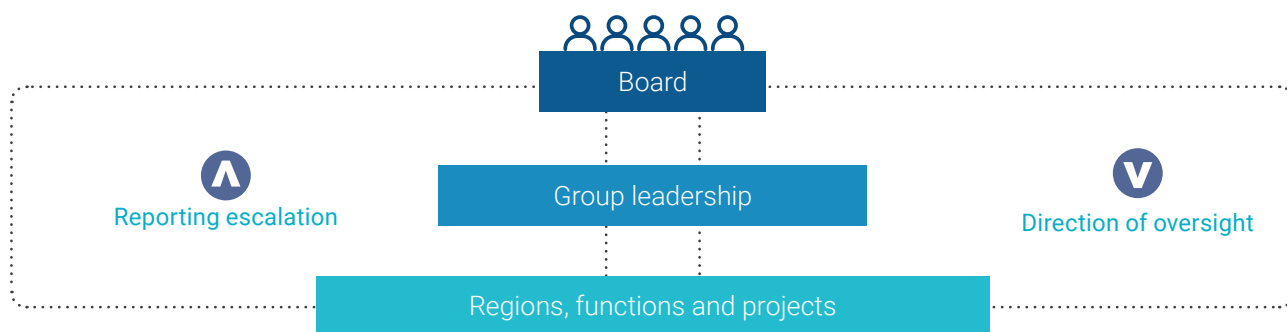
Emerging risks

Given the rapid expansion of the business, the Group's acquisition strategy and the increasing importance of semiconductors in a geopolitical context, the senior management team regularly discusses emerging risks within the business. The Chief Financial Officer and senior management team are responsible for identifying new and emerging risks.

The risks have been reviewed by the Board, which has completed a robust assessment of the Group's principal and emerging risks. The Board has reviewed the effectiveness of the Group's risk management and internal control systems. For further information, please see page 98.

In summary, the principal risks and uncertainties are as follows:

- > managing our growth;
- > competition and failure to maintain our technology leadership;
- > customer dependence;
- > customer demand;
- > risks associated with WiseWave;
- > dependence on licensing revenues;
- > reliance on key personnel and ability to attract talent;
- > external environment and events;
- > IP protection and infringement;
- > reliance on third-party manufacturing foundries; and
- > reliance on complex IT systems.



! Risk

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 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.

🛡️ Mitigation

Change in year

Increase 

The executive management team meets formally on a weekly basis to review current and future resourcing needs and priorities. During 2023, we continued to expand our senior leadership team and strengthened our administrative and operational functions. We have strengthened the management of commitments, payables and receivables to ensure timing aligns with Minimum Liquidity Requirement covenant. We also utilise external advisers to help manage our growth.

Change in year

No change 

We offer competitive employment packages to retain and incentivise our employees, as well as providing the opportunity to work in a dynamic and entrepreneurial culture. Our ability to compete is also driven by our track record as a trusted partner and the continued addition of new products and new functionality to our existing portfolio.

Our Sales and Marketing team regularly monitor the competitive landscape to identify any new or potential technology developments or products that may directly or indirectly impact our business.

Change in year

No change 

To date, we have been successful in both expanding our customer base and winning repeat business from many of our customers. We strive to maintain best-in-class execution capabilities and technology to retain our customers and win new customers. As we expand our product offering by pursuing a vertically integrated model, we expand our total addressable customer base.

In 2023, revenue concentration from our top three end-customers was 33%, which was below the prior year (FY 2022: 36%).

Change in year

No change 

There are no indications that the global appetite for data is slowing. As speeds become faster and manufacturing processes smaller, the ability of our customers to develop competing technology in-house diminishes. Increasing costs and complexity are an opportunity to drive our custom silicon and standard product offerings, including chiplets. Hyperscalers and carrier networks continue to invest in leading technology through the economic cycles.

Principal risks continued

Risk

Risks associated with WiseWave

WiseWave is today an important element of our strategy to monetise our IP in China and we are a significant minority shareholder. We therefore may be limited in our ability to influence strategy, operational, legal, commercial or financial matters. The Group and WiseWave may also face regulatory risk in terms of transfer of technology into China. There is a risk that we are unable to collect receivables due and we are unable to realise the full value of our investment on exiting the joint venture.

Dependence on licensing revenues

Our financial performance is less dependent on licensing revenues and we do not anticipate a material contribution from royalty revenues for some years. 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 could 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.

Mitigation

Change in year

No change 

The legal agreements governing WiseWave give us a degree of oversight and governance over WiseWave. Our President & Chief Executive Officer and Executive Chair are currently on the Board of WiseWave. The senior team of WiseWave comprises a number of established industry professionals with a proven track record at large US and global semiconductor companies. In 2022, we took the strategic decision to sell our shareholding in WiseWave over the medium term and seek to maintain a commercial relationship over the long term.

Change in year

Decrease 

The acquisition of OpenFive has materially reduced our dependency on IP licensing revenues as we seek to monetise our IP through custom silicon.

Given the costs, time and resources involved, our customers are highly incentivised to take their products into production. We receive minimum royalty guarantees from some of our customers.

Leveraging our acquisition of Banias Labs, as we drive revenues from our own products, our relative exposure to IP licensing will also decrease.

Change in year

No change 

Our senior management team and our employee base are highly incentivised with equity and also the opportunity to work within a fast-growing and dynamic environment at the leading edge of chip technology. In 2023, our headcount increased from 695 to 829. See Our People section for further information.

Change in year

Increase 

We have a balance of customers in different regions, are exposed to multiple end-markets and have an increasingly diversified portfolio of products.

We seek to maintain good relations with regulatory agencies in the regions where we operate. We seek to structure our business and our contracts to prevent use of our technology in areas thought to be sensitive to governments, including military applications. In 2022, the acquisition of OpenFive was reviewed and approved by CFIUS (Committee on Foreign Investment in the United States). Through that process, we believe we have strengthened our relationship with US regulators.

! Risk

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 components 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.

🛡️ Mitigation

Change in year

No change



Our designs can only be manufactured on leading-edge processes by a small number of foundry partners. Our IP embeds tagging layers, which prevent unauthorised use. We manage our R&D capabilities and seek to structure our contracts with customers to minimise the risk and impact of IP infringement claims by third parties.

Change in year

No change



A significant part of the semiconductor industry is reliant on a small number of foundry partners with leading-edge manufacturing capabilities (TSMC, Samsung and Intel). Beyond diversifying our business and continuing to work with all leading foundry providers, our ability to mitigate this risk is limited. As we pursue a vertically integrated business model, we become more reliant on third-party foundries and if their ability to supply us with silicon products is constrained, we will be impacted more quickly and more severely.

Change in year

Decrease



In 2023, we continued to make further improvements to our IT systems, in line with best practice. This included conducting network penetration testing and strengthening end-user access controls (see pages 56 and 57).

As with much of the semiconductor industry, we are reliant on design automation tools from Cadence, Synopsys and Siemens and our ability to source alternative suppliers is limited.

The strategic report on pages 1 to 77 was approved by the Board of Directors and signed on its behalf by:

Tony Pialis

President & Chief Executive Officer

23 April 2024

Board of Directors



The Board believes that the current Directors bring to the Company a desirable range of skills and experience while at the same time ensuring that no individual (or small group of individuals) can dominate the Board's decision-making.

Our Directors have extensive experience across multiple business disciplines and industry sectors relevant to the Company. We bring together senior individuals in industries including semiconductors, telecommunications and data networking, and with operational, financial and strategic skillsets and experience.

John Lofton Holt Executive Chair

John Lofton Holt has served as strategic adviser to management since 2019 and was appointed as the Company's Executive Chair in 2021.

John has been a semiconductor executive since the late 1990s and has founded, funded, scaled and led multiple semiconductor businesses, driving billions of dollars in value for shareholders. He has more than 25 years of experience as an investor and senior executive, including considerable experience in chairing boards. He previously served as Chairman and Chief Executive Officer of Achronix Semiconductor Corporation and was also a Managing Partner of Holt Brothers Capital LLC where he managed a portfolio of investments in semiconductors, hardware, robotics, renewables and real estate. John started his career in the late 1980s at NASA Goddard Space Flight Center, where he worked as a design engineer focusing on optics and electronics for remote sensing and LIDAR applications.

John holds a BSE in Electrical Engineering from Princeton University and an MSE in Electrical Engineering from Johns Hopkins University.

External appointments

WiseWave Technology Co. Ltd, Director.



Tony Pialis President & Chief Executive Officer

Tony Pialis co-founded Alphawave Semi in 2017 and has since served as its President & Chief Executive Officer. Tony has extensive experience as an entrepreneur in the semiconductor industry, having co-founded three semiconductor IP companies, including Snowbush Microelectronics Inc, which was sold in 2007 to Gennum/Semtech and is currently part of Rambus. He also founded V Semiconductor Inc. where he served as President & Chief Executive Officer, and which was acquired by Intel Corporation in 2012. Tony served as Vice President of Analog and Mixed-Signal IP at Intel Corporation between 2012 and 2017. During his tenure at Intel, Tony and his team won the prestigious Intel Achievement Award for successfully delivering next generation Ethernet and PCI-Express SerDes solutions on Intel's 22nm and 14nm process technologies.

Tony holds a Bachelor of Science and Master of Engineering in Electrical Engineering from the University of Toronto.

External appointments

Pitech Investments Inc., Director; Pitech Corp., Director; WiseWave Technology Co. Ltd, Director; The Tony Pialis (2017) Family Trust, Trustee; Scarborough Health Network, Board member.

Committee memberships

© Committee Chair ● Audit Committee ● Remuneration Committee ● Nomination Committee



Jan Frykhammar
Senior Independent Non-Executive Director

Jan Frykhammar was appointed to the Board in April 2021 as Senior Independent Non-Executive Director. Jan has years of experience as a senior executive, chair and non-executive director as well as an adviser to listed and non-listed companies. Jan was the Group Executive Vice President and Chief Financial Officer at Ericsson Group, and served as interim Chief Executive Officer until 2017. Currently Jan serves as an adviser to Zinkworks Ltd, Sweepr Technologies Ltd and ng-voice GmbH.

Jan has previously served as Chair of the Board at Aspia Group AB, Clavister Holding AB, Celltick Technologies Ltd, and as chair of the audit committee of ITAB Shop Concept AB, Nordic Semiconductor ASA, Ox2 AB as well as ENEA AB. He has also served as Non-Executive Director of Roima Intelligence OY, Quickbit AB, Telavox AB and the Swedish International Chamber of Commerce.

Jan holds a Bachelor of Science in Business Administration and Economics from the University of Uppsala.

External appointments

FCD Sverige AB, Director.



Michelle Senecal de Fonseca
Independent Non-Executive Director

Michelle Senecal de Fonseca joined the Board in April 2021. Her expertise is in international telecommunications and technology sectors. Michelle was the Global Vice President for Cloud Innovation Partnerships at Citrix Systems after having led its European sales. Prior to Citrix, she was the Global Director of Cloud and Hosting Services at Vodafone as well as Managing Director of Telecom, Media and Technology banking team at the European Bank for Reconstruction and Development. Michelle joined the Board of the FDM Group (a FTSE 250 company) in January 2016, is the co-founder and board member of Women in Telecoms and Technology, as well as a global council member at Thunderbird School of Global Management in Phoenix, Arizona.

Michelle holds Bachelor of Science degrees in Business and Political Science from the University of Kansas and an MBA from the Thunderbird School of Global Management.

External appointments

FDM Group (Holdings) plc, NED, member of the Remuneration, Audit and Nomination Committees; Women in Telecoms and Technology (WiTT) Limited, Director; Move Capital LLP Investment, Board Member and Shareholder; Arizona State University Foundation UK company, Trustee.



Victoria Hull
Independent Non-Executive Director

Victoria Hull was appointed to the Board in April 2021. Victoria has over two decades of senior management experience including roles as Executive Director and General Counsel of Invensys plc, who she joined in 2001, and Telewest Communications plc, who she joined in 1995. Prior to Telewest, she was a solicitor in the corporate finance department of Clifford Chance.

Victoria has a strong legal and corporate governance background and has operated at an Executive Committee or Board level throughout her career. She joined the board of Ultra Electronics plc (a FTSE 250 company) as Senior Independent Director in April 2017 and is a member of the Audit, Remuneration and Nomination Committees. Victoria was also appointed to the board of Network International PLC (a FTSE 250 company) in April 2019 where she chairs the Remuneration Committee and is a member of the Nomination Committee. Victoria is a NED at IQE plc where she chairs the Remuneration Committee and is a member of the Audit and Nomination Committees.

Victoria holds a Bachelor of Laws from the University of Southampton and qualified as a solicitor in 1987.

External appointments

Ultra Electronics Holdings plc, NED and SID; Network International Holdings plc, NED and Chair of Remuneration Committee; La Pleiade Limited, Director; IQE plc, Director and Chair of Remuneration Committee; Hikma Pharmaceuticals PLC.



Board of Directors continued



Rosalind Singleton Independent Non-Executive Director

Rosalind Singleton was appointed to the Board in April 2021. She is a telecoms executive with over 30 years of experience across the sector.

Rosalind is a Chair, NED, adviser and investor in the technology sector having held executive positions in multiple telecoms businesses including Spring Fibre LTD, UK Broadband (Three UK), Cable & Wireless, Vodafone, various VNOs, and other international operators from start-ups to incumbents.

Rosalind is currently Chair of the Telcoms Supply Chain Diversification Advisory Council (TSCD) which advises Government on developing the telecoms ecosystem, an advisory member of INCA's Board and a member of Ofcom's Spectrum Advisory Board. She is an Independent Board Observer at Lumine Group, listed in Toronto.

Rosalind is an active angel investor with a primary focus on tech businesses with a female founder and is a member of the Angel Academe Advisory Board.

External appointments

Telcoms Supply Chain Diversification Advisory Council (TSCD), Advisory Council Chair; Independent Networks Co-Operative Association (INCA), Advisory Board member; Lumine Group Inc, Board Observer.

Appointed to Nomination Committee on 2 January 2024.



Paul Boudre Independent Non-Executive Director

Paul Boudre was appointed to the Board in April 2021. He retired in July 2022 as the Chief Executive Officer of Soitec and he is now the CEO and Co-Founder of Silian Partners SA. Paul is currently Chair of Unity Semiconductor SAS and a Director and Chair of the Technology Committee at Comet Holding AG, a Swiss firm developing and producing innovative high-tech components and systems based on x-ray and radio frequency.

As a 30-year semiconductor industry veteran, Paul started his career in 1982 at IBM in France, where he supported in the production and development of semiconductors. He gained extensive international experience through his previous positions: managing industrial operations for IBM Semiconductor, STMicroelectronics, Motorola Semiconductor and Atmel. From 1997 to 2006, he managed European operations for KLA-Tencor, a leading semiconductor equipment manufacturer.

Paul holds a graduate degree in Chemistry from France's Ecole Nationale Supérieure de Chimie de Toulouse.

External appointments

Silian Partners SA, CEO and Board member, Unity Semiconductor SAS, Chair of the Board; Comet Holding AG, Director; SCI Pacabou, Director; SCI Farmers and CO, Director; Tulle Holdings, Director.



Sehat Sutardja Executive Director

Sehat Sutardja was appointed to the Board in April 2021. Sehat has extensive experience in the semiconductor industry, having co-founded Marvell Technology Group with his wife, Weili Dai, and having served as its Chief Executive Officer. Today, Sehat is the Chief Executive Officer at FLC Technology Group.

In 2006, Sehat was named Inventor of the Year by the Silicon Valley Intellectual Property Law Association. In 2010, he received the Distinguished Alumni Award from the Iowa State University Alumni Association, and in 2013, he received the Dr. Morris Chang Exemplary Leadership Award.

Sehat holds a PhD in Electronic Engineering and Computer Science from the University of California, Berkeley. He is also an IEEE Fellow of the Institute of Electrical and Electronics Engineers.

External appointments

FLC Technology Group, Inc., Chairman/CEO; Danger Devices Inc., Chairman; Zerrow Power Systems Pte Ltd, Chairman/CEO; Wolley Tech, Inc., Director; DreamBig Semiconductor Inc., Chairman; Blue Cheetah Analog Design, Inc, Director; Elastic.Cloud, Director; AvivaLinks, Director; Ventana Micro, Director; Apex, Director; Silicon Box, Chairman; Leap Frog, Director; Expedera, Director; SSWD LLC, Co-owner; Aviva Technology Holdings, Director.

Committee memberships

© Committee Chair ● Audit Committee ● Remuneration Committee ● Nomination Committee



Susan Buttsworth
Independent Non-Executive
Director

Susan Buttsworth was appointed to the Board in April 2021. At that time she was Three UK's Chief Operating Officer and responsible for driving its overall network and IT transformation. Susan has worked for the CK Hutchison Group since 1996 and has delivered large scale network and IT deployments across its group. In addition to her role at Three, Susan previously led CKH Innovations Opportunities & Development (CKHIOD), a telecom unit of CK Hutchison Holdings (CKHH). CKHIOD comprises cross-border wholesale and enterprise opportunities, data monetisation and digital consumer products and services. She is currently working for CKHH as a senior consultant.

Susan holds a bachelor's degree in Commerce from the University of New South Wales, a Master's degree in Commerce from Macquarie University, and is a Fellow Certified Practising Accountant in Australia.

External appointments

CKH IOD Data Limited, Director; G&S Buttsworth Holdings Pty Ltd, Director; Buttswann Nominees Pty Ltd, Director; Cherrybooks Pty Ltd, Director.

Appointed the Chair of Nomination Committee on 2 January 2024.



David Reeder
Independent Non-Executive
Director

David Reeder was appointed to the Board in September 2023. David has extensive experience in the semiconductor industry as well as corporate finance, strategic planning, supply chain management, engineering, manufacturing, IT systems, investor relations and risk management. David has served in senior finance and operational roles in global high technology companies including: GlobalFoundries, Texas Instruments, Broadcom, Cisco and Lexmark.

Prior to GlobalFoundries, David was on the Board of Directors and served as a member of the Audit Committee at Milacron Holdings Corp until its acquisition by Hillenbrand Inc in November 2019. Previously, David was Chief Executive Officer for Tower Hill Insurance Group from 2017 to 2020. Prior to that, he was President and CEO for Lexmark International, Inc. from 2015 to 2017. Earlier in his career, David was CFO at Electronics for Imaging from 2014 to 2015 and Cisco's Enterprise Networking Division from 2012 to 2014 and held executive positions at Broadcom and Texas Instruments.

David holds a Bachelor of Science degree in Chemical Engineering from the University of Arkansas and a Master of Business Administration degree from Southern Methodist University.



Kim Clear
Company Secretary

Kim Clear was appointed as Company Secretary in August 2022 and reports directly to the Executive Chair.

Kim has extensive experience as a senior chartered secretary, with 24 years' experience within FTSE plcs and asset management. Kim has overall responsibility for the regulatory and secretariat activities across the Group, the effective operating of the Alphawave Semi Board and advising on key issues of corporate governance.

Prior to joining Alphawave Semi, Kim spent five years at TUI AG and started her career in 2000 with Whitbread plc.

Kim holds a Masters degree in Psychology from Middlesex University and is a Fellow of the Chartered Governance Institute.

Management team

Our management team nurtures an engineering-focused culture that enables us to drive innovation for next generation technologies under the direction of some of the best engineering talent in wired connectivity IP.

John Lofton Holt
Executive Chair

Tony Pialis
President & Chief Executive Officer



Babak Samimi
SVP and General Manager, Connectivity Products

Babak Samimi joined the Company in November 2022 and brings a wealth of experience in the semiconductor industry. Prior to joining Alphawave, Babak was the Corporate VP for Microchip Technology, Communications Networking Business, focused on enterprise, telecom and cloud service providers. Before joining Microchip, he was with Microsemi Corporation and PMC Sierra.

Babak holds a Bachelor degree in Electrical Engineering from the Memorial University of Newfoundland.



Jonathan Rogers
SVP, Engineering

Jonathan Rogers co-founded Alphawave Semi in 2017 and has since served as its Senior Vice President of Engineering, leading the Group's research and development function. He has over 14 years' experience as an engineering executive, including as Director of Engineering and Senior Principal Engineer at Intel Corporation between 2012 and 2017, and Director of Design Engineering at V Semiconductor and Gennum. He was also the Director of IP Development and IC Designer at Snowbush Microelectronics Inc.



Rahul Mathur
Chief Financial Officer

Rahul joined Alphawave IP Group plc as Chief Financial Officer in October 2023.

Rahul had served as CFO of Avantus since 2021 and as CFO and Senior Vice President of Finance of Rambus from 2016 to 2021. During his tenure at Rambus, he was an integral part of its transformation as a product company, consistently delivering strong financial results and shareholder value. Prior to Rambus, Rahul served as Senior Vice President of Finance at Cypress Semiconductor, managing financial planning and investors relations, as well as Vice President of Finance at Spansion before the company was acquired by Cypress. He has extensive experience in M&A, corporate finance, strategic planning, investor relations and risk management.

Rahul holds a Bachelor of Arts in applied mathematics from Dartmouth College and an MBA from the Wharton School of Business at the University of Pennsylvania.



Maia Jones
VP, People, Places and Culture

Maia Jones is an accomplished executive with extensive experience in diverse sectors, including government, public and technology.

As VP of People, Places and Culture at Alphawave, she leads the Company's Human Resources, Facilities and Administrative functions, attracting and retaining top talent and fostering a positive work culture. With prior experience at two leading semiconductor companies and a medical device start-up, Maia has a proven track record of success. Her nine years of experience with the Ontario government have uniquely positioned her to lead Alphawave's People, Places and Culture team.



Mohit Gupta
SVP and General
Manager, Custom
Silicon

Mohit Gupta joined in September 2022 via the acquisition of the OpenFive business from SiFive. He currently serves as Senior Vice President and General Manager for IP and the Custom Silicon business unit. Mohit brings more than two decades of experience in semiconductor IP and SoC domain-leading worldwide engineering, application engineering, products and field teams. Prior to Alphawave, he led the IP and Custom SoC business units at SiFive and Rambus.

Mohit holds a Bachelor of Engineering in Electronics and Communications from Thapar University and Master of Science in Microelectronics from BITS, Pilani. He also holds an executive MBA in International Business from the Indian Institute of Management, Calcutta.



**Tony Chan
Carusone**
Chief Technology
Officer

Tony Chan Carusone was appointed Chief Technology Officer in January 2022. Tony has been a professor of Electrical and Computer Engineering at the University of Toronto since 2001. He has over 100 publications, including eight award-winning best papers, focused on integrated circuits for digital communication. Tony has served as a Distinguished Lecturer for the IEEE Solid-State Circuits Society and on the Technical Programme Committees of the world's leading circuits conferences. He co-authored the classic textbooks 'Analog Integrated Circuit Design' and 'Microelectronic Circuits' and he is a Fellow of the IEEE. Tony has also been a consultant to the semiconductor industry for over 20 years, working with both start-ups and some of the largest technology companies in the world.

Tony holds a B.A.Sc. in Engineering Science and a PhD in Electrical Engineering from the University of Toronto.



Saeid Ghafouri
SVP, Worldwide
Sales

Saeid Ghafouri joined Alphawave Semi in February 2021 as Senior Vice President of Worldwide Sales. With over 30 years of experience in the semiconductor industry, he has helped several companies grow from early stages to large successful enterprises. Among them are Cadence Design Systems, Synopsys and Magma Design, where he ran worldwide sales and managed to grow their revenue from US\$40m to over US\$200m by meeting or exceeding Wall Street's expectations for 23 quarters in a row. Saeid holds a BS in Electrical Engineering.



Sudhir Mallya
SVP, Corporate
Marketing

Sudhir Mallya is Senior Vice President of Corporate Marketing at Alphawave Semi. He is based in Silicon Valley and has over 25 years of experience at leading global semiconductor companies with executive positions in engineering, marketing and business unit management. His experience spans custom silicon (ASICs) and application-specific (ASSPs) products across multiple application domains including data centres, networking, storage and edge-computing. He has an MSEE from the University of Cincinnati and a bachelor's in electrical engineering from the Indian Institute of Technology, Bombay.



Raj Mahadevan
SVP, Operations

Raj Mahadevan co-founded Alphawave Semi in 2017 and has since served as its Senior Vice President of Operations and Chief Operating Officer. Raj has more than two decades of engineering executive experience in the semiconductor IP industry, including leading roles in design, architecture, operations and design methodology development. He co-founded V Semiconductor Inc., where he was a Director, and also Snowbush Microelectronics Inc. Raj holds a Bachelor of Applied Science in Engineering Science and a Master of Applied Science in Engineering from the University of Toronto.

Board leadership and Company purpose



“The Board’s commitment to strong governance supports the long-term success of the Group.”

John Lofton Holt
Executive Chair

Dear shareholder

On behalf of the Board, I am pleased to present the Company’s corporate governance report for the financial year ended 31 December 2023.

As outlined in my Chair’s statement, it has been another busy year, consolidating the acquisitions we made in 2022, while continuing to invest in future revenue growth. We welcomed Rahul Mathur as our new CFO in October 2023, as well as a new independent Non-Executive Director, David Reeder.

The Board has been highly engaged this year, being flexible with their time, and I would like to thank my Board colleagues for their considerable commitment and support during the year, particularly in the management of delay to the publication of the FY 2022 financial statements.

Corporate governance

This corporate governance report sets out how the Company has complied with the UK Corporate Governance Code 2018 (the ‘Code’). The Board believes that good governance is fundamental to supporting the sound management and long-term success of the Group. This can only be achieved if the Board is supported by appropriate governance processes to ensure that the Group is managed responsibly and with integrity, fairness, transparency and accountability.

The Board is firmly committed to the highest standards of corporate governance. Given that the Company has a standard listing, the Board voluntarily complies and intends to continue to comply with the requirements of the Code. The Board will also voluntarily report to its shareholders on its compliance with the Code in accordance with the requirements for listed companies under the Listing Rules.

The Code recommends that at least half the board of directors of a UK premium listed company, excluding the chair, should comprise of non-executive directors determined by the board to be independent in character and judgement and free from relationships or circumstances which may affect, or could appear to affect, the director’s judgement. The Company regards all Non-Executive Directors as independent within the meaning of the Code and free from any business or other relationship that could materially interfere with the exercise of their independent judgement.

The Code also recommends that, on appointment, the chair of a UK listed company should meet the independence criteria set out in the UK Corporate Governance Code. However, I as the Company Chair was not independent on Admission.

The Board considered that with the majority of independent Directors on the Board, my executive role is not expected to compromise the Board's overall independence and its firm commitment to the highest standards of corporate governance, as noted above.

The Board further believes that the current Directors bring to the Company a desirable range of skills and experience while at the same time ensuring that no individual (or small group of individuals) can dominate the Board's decision-making. The Code recommends that the board of directors of a UK premium listed company should appoint one of the independent non-executive directors to be the senior independent director to provide a sounding board for the chair and to serve as an intermediary for the other directors when necessary. The Company appointed Jan Frykhammar as its Senior Independent Director. In compliance with the Code, the Board has established three committees: an Audit Committee, a Nomination Committee and a Remuneration Committee, and has also established a separate Market Disclosure Committee. If the need should arise, the Board may set up additional committees as appropriate.

Compliance with the Code and Listing Rules

This statement, together with the various Board Committee reports and relevant sections of the strategic report included in this annual report, describes the Board's application of and compliance with the Code published by the FRC (www.frc.org.uk).

This corporate governance statement, together with the rest of the corporate governance report and Committee reports, provides information on how the Group has applied the principles and complied with all relevant provisions of the Code, except as otherwise disclosed, and meets other applicable requirements, including provisions of the Listing Rules and the Disclosure Guidance and Transparency Rules of the Financial Conduct Authority.

The requirements under the Disclosure Guidance and Transparency Rules DTR 7.2 are covered in greater detail throughout the annual report, for which we provide a reference as follows:

- > Directors' statement with regard to the appropriateness of adopting the going concern basis of accounting and any material uncertainties identified is set out on pages 99;
- > the viability statement is set out on page 72;
- > information with regard to significant share holdings is presented in the Directors' report on page 124;
- > information on Board and Committee composition and division of responsibilities on pages 87 and 88;
- > the Board's approach to workforce and stakeholder engagement is in the section 172(1) statement on pages 28 to 32;
- > the Executive Chair's and the more comprehensive Board's performance as part of the Board evaluation are discussed in the Nomination Committee report on page 90.
- > Board diversity is discussed in the section on the Nomination Committee's activities on page 90.
- > the section describing the work of the Audit Committee is set out on pages 94 to 99; and
- > the Directors' statement on fair, balanced and understandable is set out on page 97.

John Lofton Holt

Executive Chair
23 April 2024

Board leadership and Company purpose continued

Our governance framework

The Board

The Board is responsible for the overall leadership of the Group and setting the Group's values and standards, with the overall aim of delivering shareholder value. Principally, we achieve this through:

- > approving the Group's business strategy proposed by management, as well as setting its purpose, values, standards and culture and ensuring that these are aligned;
- > oversight of effective Group risk management and internal control processes including a robust assessment of the Group's emerging and principal risks;
- > the approval of any changes relating to the Group's capital, corporate and/or listing structure; and
- > oversight of the Group's ESG strategy.

Board

Pages 78 to 81

Board activities

Page 87

Division of responsibilities

Page 88

Audit Committee

Responsible for the integrity of the Group's financial reporting, including scrutinising accounting policies, and reporting to the Board on significant reporting issues and judgements.

Monitors the effectiveness of internal control and risk management systems and the effectiveness and objectivity of internal and external auditors.

Approves the internal audit plan and recommends the appointment of the external auditor.

Read the Audit Committee report.

Remuneration Committee

Ensures there is a formal and transparent process for establishing the Directors' Remuneration Policy.

Approves individual remuneration packages of the Executive Chair, Executive Directors and the wider workforce.

Approves the overall remuneration policy for the Group including reviewing the design and development of share plans operated for Executive Directors and others requiring shareholder approval, and approves and assesses performance targets where applicable.

Reviews workforce remuneration practices and policies when setting executive remuneration, as well as the alignment of incentives and awards with culture.

Read the Remuneration Committee report.

Nomination Committee

Facilitates the Board in meeting its responsibilities to plan and execute timely Chief Executive Officer succession and works with the Chief Executive Officer to plan and execute Executive Director succession.

Ensures suitable succession plans are in place for the Board and senior executives to achieve the Group's strategic objectives, ensuring plans are based on merit and against objective criteria.

Recommends appointments to the Board and its principal Committees.

Oversees development of a diverse pipeline in the executive succession plan and talent management.

Assists the Board in the development of a Group-wide approach to all forms of diversity and inclusion.

Read the Nomination Committee report.

Roles and responsibilities of the Board

The Board is the body responsible for the overall management and conduct of the Group's business. The Group's governance framework is designed to encourage a clear understanding and delivery of its strategy. The Board has accountability for the oversight, governance, direction, long-term sustainability and success of the business and affairs of the Group and is responsible to stakeholders for creating and delivering sustainable shareholder value.

The Board has delegated certain responsibilities to its Committees and, in compliance with the Code, has established an Audit Committee, a Nomination Committee and a Remuneration Committee. The terms of reference for each of the Board's Committees were most recently updated and approved in March 2024 and are available to view on the Group's website: www.awavesemi.com/en/investors/corporate-governance/.

The Committee Chairs are responsible for reporting to the Board on the Committees' activities.

Board activities in FY 2023

During the year, the Board held five scheduled meetings, together with a separate dedicated strategy day. The Board's strategy sessions centred around the financial performance of the Group, scaling the business and expanding product offerings, along with a focus on workplace engagement.

The Board makes decisions in order to ensure the long-term success of the Group whilst taking into consideration the interests of wider stakeholders as required under section 172(1) of the Companies Act 2006. Board meetings are one of the mechanisms through which the Board discharges this duty.

Further information about Board decisions is included in the strategic report.

Culture

The Board is deeply committed to fostering and nurturing the Company's collaborative and innovative culture, rooted in values of integrity, inclusivity and agility. Together with the management, we firmly believe that the ingenuity and adaptability of our engineering talent are paramount to the Group's achievements. Our company boasts a highly technical and proficient management team that has cultivated an engineering-centric environment, emphasising results orientation and customer focus. This approach has empowered us to attract and retain some of the finest engineering minds in the interconnected world. Research and development/engineering comprise a significant 89% of our workforce, highlighting our dedication to innovation and forward-thinking.

Our culture and values serve as the bedrock of our operations, guiding our interactions internally and externally. The Board takes on the crucial responsibility of championing and monitoring our culture as we evolve and expand.

We actively seek input from our employees through engagement surveys, fostering a collaborative environment where everyone's voice is heard and valued. Together, we remain steadfast in our commitment to driving progress, fostering inclusivity and delivering exceptional outcomes for our customers and stakeholders alike.

2023 Annual General Meeting

The Company's Annual General Meeting (AGM) was held on 22 June 2023. All resolutions put to the meeting were passed but the Board did note that Resolution 19 to approve the Rule 9 waiver received less than 65% in favour.

Resolution 19 sought to approve the Rule 9 waiver obtained from the Takeover panel which was originally obtained upon IPO. Under Rule 9 of the Takeover Code, if someone acquires control of 30% or more of the voting rights of a Code-governed company (or someone already holding more than 30% (but less than 50%) of the voting rights acquires additional shares carrying voting rights), Rule 9 requires that person to make a mandatory offer to all of the Company's shareholders. This resolution waives the requirement for the founders to make a mandatory offer if their shareholding in the Company increases as a result of any buyback of shares by the Company.

The Executive Chair and the Global Head of Investor Relations continue to engage with investors to understand their views and concerns.

Board site visits

The September 2023 Board programme was held at the Alphawave Toronto (Canada) headquarters. The two-day visit incorporated the scheduled Board and Committee meetings and also provided the Board the opportunity to meet with staff over breakfast and tour the on-site labs. The visit enabled the Board to see some of the changes made by the acquisition expansion investment made in 2022. Additionally, the November 2023 Board programme was held in London (England) facilitating in-person engagement between Board members and senior management.



Board reserved matters

To safeguard the areas material to the purpose, strategy and values of Alphawave, the Board retains a schedule of matters reserved for its decision.

Board leadership and Company purpose continued

Board composition

The Board is comprised of ten Directors: the Executive Chair, the Chief Executive Officer, one Executive Director and seven independent Non-Executive Directors, one of whom is the Senior Independent Director. Jan Frykhammar is the Senior Independent Director and Chair of the Audit Committee. Victoria Hull is Chair of the Remuneration Committee. John Lofton Holt is Chair of the Board and up to 31 December 2023 was also Chair of the Nomination Committee. From 1 January 2024 Susan Buttsworth became Chair of the Nomination Committee. The Code recommends that at least half the board of directors of a UK premium listed company, excluding the chair, should comprise non-executive directors determined by the board to be independent in character and judgement and free from relationships or circumstances which may affect, or could appear to affect, the director's judgement. The Company regards all of the Non-Executive Directors as 'independent Non-Executive Directors' within the meaning of the Code and free from any business or other relationship that could materially interfere with the exercise of their independent judgement. The Board also considers that it has complied with the requirements of the Code in relation to the balance of Executive and independent Non-Executive Directors on the Board, and the composition of the Company's Audit Committee, Remuneration Committee and Nomination Committee.

The roles of the Executive Chair and the Chief Executive Officer

The roles of the Executive Chair and the Chief Executive Officer are separately held, with the division of responsibilities clearly defined. The Executive Chair leads the Board, facilitating engagement at meetings by drawing on members' skills, experience and knowledge, and is responsible for the Board's overall effectiveness and oversight of the management of the Group. The Executive Chair, in his executive capacity, provides management support on key strategic, operational and financial activities, and plays a pivotal role in stakeholder management and investor relations. The Chief Executive Officer is responsible for all executive management matters of the Group within the authority delegated by the Board and for the implementation of Board strategy.

The role of the Senior Independent Director

The purpose of this role is to provide a sounding board for the Executive Chair and to act as an intermediary for the other Directors. In addition, to be available to shareholders if they have any matters of concern that contact through the normal channels of the Executive Chair or Chief Executive Officer has failed to resolve.

Company Secretary

The Company Secretary acts as the Secretary to the Board and all Company Committees, and attends all Board and Committee meetings. The Company Secretary supports the Chair and ensures that the Board and Committee members receive all the information needed to perform their roles, including receiving papers in a timely manner. The Company Secretary advises the Board on legal and corporate governance matters, including the Code, UK Listing Rules and other statutory and regulatory requirements. Additionally, the Company Secretary facilitates the Directors' induction programmes, assists with their professional development, and provides advice and support to the Directors when required.

Non-Executive Director for Workplace Engagement

A Non-Executive Director for Workplace Engagement serves as a crucial link between the Board and the workforce. They ensure employee perspectives are represented in the boardroom, develop and oversee employee engagement initiatives, and communicate Board decisions to the workforce. They also collaborate with relevant stakeholders on strategic workforce issues, ensuring that employee interests are considered in all strategic decisions. This role is integral to fostering a positive and inclusive workplace culture, promoting employee satisfaction and productivity, and driving overall business success.

Meeting attendance

The names of the Directors who served during FY 2023 are set out in the table across, together with their attendance at Board and Committee meetings held. All meetings are able to be held virtually to allow greater participation but at least one meeting per year is held in person.

Each Director's attendance at Board and Committee meetings is considered as part of the formal annual review of their performance. Directors are encouraged to attend all Board and Committee meetings but sometimes due to time differences or prior business activities a Director may not always be able to attend. When this happens and a Director is unable to attend a Board or Committee meeting, they continue to receive all papers. They can communicate their comments and observations on the matters to be considered at the meeting in advance via the Executive Chair, the Company Secretary, the Senior Independent Director or the relevant Board Committee's Chair for raising, as appropriate, during the meeting. The absent Director is kept up to date after the meeting on any decisions taken and feedback provided when appropriate.

In addition to the scheduled Board and Committee meetings, monthly update calls are scheduled to ensure comprehensive coverage of critical business developments, emerging issues and opportunities. Contingency arrangements are also in place to address any Board decisions or approvals needed outside of these regular meetings.

The Executive Chair holds regular meetings with each of the Non-Executive Directors.

Details of our business model, strategy and key risks for the business can be found in our strategic report.

The table below shows the number of scheduled Board and Committee meetings attended by each Director during the year against the total number of possible meetings in respect of each Director.

Name ^{1,2}	Board ^{3,4}	Audit Committee	Remuneration Committee	Nomination Committee
John Lofton Holt	5/5	n/a	n/a	3/3
Tony Pialis	5/5	n/a	n/a	n/a
Sehat Sutardja	1/5	n/a	n/a	n/a
Jan Frykhammar	5/5	5/5	4/4	3/3
Victoria Hull	5/5	5/5	4/4	n/a
Susan Buttsworth	5/5	n/a	n/a	3/3
Michelle Senecal de Fonseca	4/5	4/5	n/a	n/a
Paul Boudre	5/5	n/a	4/4	n/a
David Reeder ⁵	2/2	2/2	n/a	2/2
Rosalind Singleton	5/5	n/a	n/a	n/a
Daniel Aharoni ⁶	2/2	n/a	n/a	n/a

1. The composition of the Board and its Committees is shown as at 31 December 2023 and remains unchanged as at the date of this document.

2. The Market Disclosure Committee has been omitted from the above table as it meets on an adhoc basis, rather than a scheduled basis. It met ten times during the period under review.

3. The Board held several additional adhoc and sub-committee meetings during the period to deal with urgent matters. All Board members who were able to attend did so.

4. Michelle Senecal de Fonseca was unable to attend the September Board and Audit Committee meetings due to pre-planned leave and Sehat Sutardja was unable to attend the March, April, June and September Board meetings due to prior commitments.

5. David Reeder joined the Board in September and has attended all scheduled meetings. At the same time, he was appointed to the Audit and Nomination Committees.

6. Daniel Aharoni left the Company in May 2023.

Composition, succession and evaluation

NOMINATION COMMITTEE REPORT



“The Committee actively contributes to the Board’s efforts in ensuring the long-term success of the business by considering the future needs of the Board, in terms of both skills and diversity.”

John Lofton Holt

Chair of the Nomination Committee

Dear shareholder

I am pleased to present our third Nomination Committee report, covering the year ended 31 December 2023. In the period following the IPO, the main purpose of the Committee was to embed the newly formed Board and Committee members and ensure the Directors had the appropriate level of strategic understanding of the Company’s business.

During 2023, the Committee continued to ensure orderly succession plans were in place for key members of the Executive. The Committee also reviewed the independence, experience and diversity of the independent Non-Executive Directors and recommended their re-election to the Board. The Nomination Committee determined that they were all independent in character and judgement and that there were no relationships or circumstances which are likely to affect their judgement.

Purpose and role

The Committee is an important component of the Company’s governance framework and the Group’s strategy. The Nomination Committee is responsible for ensuring that the Company has the executive and non-executive Board leadership it requires, both now and for the future. It reviews, and challenges gaps in, succession plans for all key senior roles to ensure the organisation’s long-term stability. It also seeks to ensure that talented individuals are provided with opportunities to develop.

The Committee’s work extends beyond the composition of the main Board and the Committee was involved in the selection and appointment process for the Group’s new Chief Financial Officer, Rahul Mathur. Rahul joined in October 2023, and his biography is set out in the management team section. The Committee looks forward to working with him during 2024.

Committee composition

The Nomination Committee is comprised of myself as Chair and its other members are Jan Frykhammar, Susan Buttsworth and David Reeder, all independent Non-Executive Directors. It was agreed at the November Committee meetings that Susan would become Chair of the Committee, Rosalind Singleton would be appointed as a member and John Lofton Holt would step back from the Committee. The biographies of each member of the Committee are set out on the Board of Directors pages.

The UK Corporate Governance Code 2018 (the ‘Code’) recommends that a majority of the members of a nomination committee should comprise independent non-executive directors. The Board considers that the Company complies with the recommendations of the Code in this respect.

Meetings and attendance

Two scheduled meetings were held in 2023, with one ad hoc meeting. The Nomination Committee Chair reported to the Board on the key matters discussed.

Committee evaluation

The Committee's performance and effectiveness were reviewed as part of the wider Board evaluation. The review stated that the Committee was performing well but it was suggested that the Chair position should be held by a Non-Executive Director and this has been actioned. All members allocated sufficient time to the Committee with quality discussion and debate.

Focus and key activities in 2023

The Nomination Committee assists the Board in discharging its responsibilities and is responsible for ensuring the ongoing composition and make-up of the Board and any Committees of the Board remain effective and suited to the Group's strategy and values. In practice this means it is responsible for periodically reviewing the Board's structure and identifying potential candidates to be appointed as Directors or Committee members as the need may arise. The Committee reviewed the current structure, size and composition of the Board and found it to be suitable.

The Committee reviewed the training needs of the Directors and ensured there was suitable time on the Board agenda for Company-appropriate training.

The Committee was mindful of Board diversity and the benefits it can bring.

Director independence and time commitment

The Nomination Committee considers that the independent Non-Executive Directors continue to demonstrate effective performance, enthusiasm and commitment to the role and have sufficient time to meet their responsibilities.

The Nomination Committee is satisfied that the Board has the appropriate range of skills, experience, independence and knowledge of the Group to enable it to discharge its duties and responsibilities effectively.

Focus areas for 2024

As part of the Nomination Committee's remit, it will look at the following key tasks:

- > full annual evaluation of effectiveness of the Board and its Committees;
- > a review of the Board composition, skills matrix and succession planning, for the Board and senior management team and;
- > setting diversity objectives and strategies for the Group, and monitoring the impact of diversity initiatives.

Succession planning

Continuous evaluation will be carried out as the Company matures, to ensure that the composition of the Board continues to be appropriate for the needs of the Group and its long-term success.

People are at the heart of our business and the Committee will continue to prioritise the development of the Company's Talent, Succession and Development offering and look to implement any further improvements that can be made. The Committee will also seek to drive forward further progress towards our diversity goals.

Internal Board evaluation

The second annual evaluation of the operation and effectiveness of the Board, its Committees and individual Directors took place in December 2023. The internal evaluation was facilitated by Link Company Matters Limited, using a tailored questionnaire structured to provide Directors with an opportunity to express their opinions on the efficiency of the Board and its Committees, the focus and functionality of meetings and answering specific questions. The Board completed evaluation questionnaires split into five sections with an additional separate section each covering Directors' self-appraisal, and fellow Directors' appraisal. The responses were collated and analysed by Link Company Matters Limited.

Board evaluation summary

The results of the Board evaluation were encouraging, indicating progress across several critical areas. Noteworthy achievements include:

Strategic alignment:

- > The forward meeting plan and individual agendas effectively mirror the Board's strategic priorities.
- > The Executive Chair demonstrated strong leadership, guiding the Board through changing circumstances.

Effective governance:

- > The relationship between Non-Executive Directors and the Chief Executive Officer remains robust.
- > Oversight of strategic implementation has been diligent.
- > The Board actively contributes to strategy development.
- > The Company Secretary and training programmes provide essential support.

Board composition:

- > The evaluation affirmed a well-balanced Board composition.
- > Discussions centred on attributes crucial for future appointments and succession planning.

While the findings were positive, there's always room for improvement. As part of a balanced process, we'll focus on refining our practices. Looking ahead, the Chair's priorities for the coming year will align with the evaluation outcomes.

The Board intends to comply with the Code guidance that an externally facilitated evaluation should take place at least every three years.

Composition, succession and evaluation continued

NOMINATION COMMITTEE REPORT

Our approach to election and re-election

The Board has opted to comply with provision 18 of the Code where all Directors stand for re-election at each Annual General Meeting. Accordingly, all Directors will stand for re-appointment at the Company's 2024 AGM.

The Board considers that all the current Directors continue to be effective, are committed to their roles, and have sufficient time available to perform their duties. The Board therefore recommends the election of all Directors.

Induction of new Directors and Board training

The Directors receive training and development throughout their tenure. The Board and its Committees receive regular updates on relevant legal, regulatory and financial developments, changes in best practice and environmental, social and governance matters from subject experts, including the Company's external lawyers and Company Secretary. During the 2023 financial year, in collaboration with Link Company Matters Limited, and following the appointment of a new Director, the Company Secretary facilitated access to updated Director training. This training comprehensively covered the requirements outlined in the Companies Act 2006. Annual refresher training is made available to the Board of Directors. The Board holds an annual off-site strategy meeting.

In 2023, dedicated Directors' training sessions included sessions on:

- > duties and responsibilities of Directors of UK listed companies, including AGM duties; and
- > refresher on MAR and continuing obligations.

The training needs of the Directors are periodically discussed at Board meetings. A corporate governance update is a standing item at all Board meetings. Additional training is available on request, so that Directors can update their skills and knowledge as applicable.

The Board plans training on a forward-looking basis, and upon collecting feedback from Non-Executive Directors on topics of interest. Board members receive formal papers a week ahead of each Board or Committee meeting, which enables them to make informed decisions on the issues under consideration. In addition to formal Board meetings, the Executive Chair maintains regular contact throughout the year with the Chief Executive Officer, Chief Financial Officer and Group management team to discuss specific issues. The Company Secretary acts as an adviser to the Board on matters concerning governance and ensures compliance with Board procedures. All Directors had access to the Company Secretary's advice throughout 2023. Directors may also take independent professional advice at the Company's expense if required. In the event that any Director has concerns about the running of the Group, or a proposed action, that cannot be resolved within the Board forum, these may be reflected in the Board minutes. The Company Secretary circulates minutes of each Board and Committee meeting following the meeting for comment and approval to ensure an accurate record is captured.

Diversity

At Alphawave Semi, ensuring diverse representation and the bold ideas it creates is something we take seriously from the top down.

Diversity is one of the strongest assets of our organisation. The Group is committed to promoting the recognition and appreciation of our diverse and rich culture and believes that it is critical to its success to promote freedom of thought and opinion in a respectful environment. The decisions we make are rooted by respectfully considering each other's thoughts and opinions and by working towards a greater common goal.

The Group recognises the importance of having a diverse Board, including in terms of gender and ethnicity. We believe that having Board members who collectively possess a broad range of social, educational and professional backgrounds, together with different skills, experiences and cognitive strengths will contribute towards a high-performing business. Management believes that our engineering-focused workforce, management teams and diverse and experienced Board of Directors differentiate it from the competition and are critical to the Group's success in its marketplace.

The Company has met the following FCA diversity targets (as required by Listing Rule 9.8.6(9)):

- > at least 40% of the Board being women (2023: 40%); and
- > at least one member of the Board being from an ethnic minority background (2023: one).

Although in the year we have not met the target of having at least one senior Board position being held by a woman, we are pleased to report that the Chairs of our Nomination Committee and Remuneration Committee are women.

Board gender diversity

	Number of Board members	Percentage of the Board	Number of senior positions on the Board (CEO, SID and Chair)	Number in executive management	Percentage in executive management
Men	6	60%	3	8	89%
Women	4	40%	0	1	11%
Not specified/ prefer not to say	—	—	—	—	—

	Number of Board members	Percentage of the Board	Number of senior positions on the Board (CEO, SID and Chair)	Number in executive management	Percentage in executive management
White British or other White (including minority-white groups)	9	90%	3	5	45.5%
Mixed/Multiple Ethnic Groups	—	—	—	—	—
Asian/Asian British	—	—	—	4	36.5%
Black/African/ Caribbean/ Black British	—	—	—	—	—
Other ethnic group, including Arab	1	10%	—	1	9%
Not specified/ prefer not to say	—	—	—	1	9%

For the purposes of the FCA disclosures, 'executive management' is defined as the most senior executive body below the Board and the Company Secretary, as set out under Listing Rule 9.8.6R(10). However, the Company Secretary is not a member of the Management team, therefore as set out earlier in this report, the Management team currently comprises one female and ten male colleagues.












Approach to data collection

At Alphawave Semi, the gender and ethnicity data relating to the Board is based on the information held by the Company Secretary and individual confirmations collected on an annual basis as part of our Director year-end confirmation.

Board experience

	Financial	M&A	Strategy	Semi-conductors	Telecoms	Data networking
John Lofton Holt	•	•	•	•		•
Tony Pialis		•	•	•		•
Sehat Sutardja		•	•	•		•
Jan Frykhammar	•	•	•	•	•	•
Michelle Senecal de Fonseca	•	•	•		•	•
Rosalind Singleton		•	•		•	•
Paul Boudre		•	•	•		
Susan Buttsworth	•	•	•		•	•
David Reeder	•		•	•		
Victoria Hull	•	•	•	•		

Board geographic diversity

John Lofton Holt	
Tony Pialis	
Sehat Sutardja	
Jan Frykhammar	
Michelle Senecal de Fonseca	 
Rosalind Singleton	
Paul Boudre	
Susan Buttsworth	
David Reeder	
Victoria Hull	

When considering Board appointments and internal promotions at a senior level, the Group will continue to take account of relevant voluntary guidelines in fulfilling their role regarding diversity, while seeking to ensure that each post is offered strictly on merit against objective criteria to the best available candidate.

The Nomination Committee will continue to consider the structure, size and composition of the Board and its Committees when contemplating new appointments and succession planning for the year ahead. A range of diversity factors will be taken into account in determining optimal composition, together with the need to balance their composition and refresh this progressively over time.

Succession planning, Board independence and tenure of service

New Directors will typically be appointed by the Board and then put forward for election by shareholders at the subsequent AGM.

All Non-Executive Directors are appointed for initial terms of two three-year terms and may be terminated by either party upon one month's written notice or by shareholder vote at the AGM. The Non-Executive Directors do not have any entitlement to compensation (or payment in lieu of notice) if they are not re-elected by shareholders following any retirement.

Full details of the remuneration of the Non-Executive Directors can be found in the Directors' remuneration report.

John Lofton Holt

Chair of the Nomination Committee
23 April 2024

Audit, risk and internal control

AUDIT COMMITTEE REPORT



“In 2023 the Group made significant infrastructure investments to improve financial controls and set the platform for future growth.”

Jan Frykhammar

Chair of the Audit Committee

Dear shareholder

On behalf of the Board, I am pleased to present my third report as Chair of the Audit Committee. The report provides a summary of the Audit Committee's role and activities for the year ended 31 December 2023, and is intended to provide an understanding of the work the Committee has done and to provide an insight into how the Committee has discharged its responsibilities. I trust you will find this report to be informative and that you take assurance from the work we have undertaken.

During the later part of the financial year, we welcomed David Reeder as an independent Non-Executive Director and member of the Committee and Rahul Mathur as the new CFO of the Company. David was the Group Finance Director at Globalfoundries and is now the CFO at Chewy, Inc and is considered by the Board to have recent, relevant financial experience. Rahul was the CFO at Rambus, Inc., and has decades of experience in senior finance roles in the semiconductor industry.

Much of the work of the Committee in the first half of the financial year was targeted and focused upon the audit of the financial statements of FY 2022. Although the audit procedures were substantially complete by the required publication date, the Company's external auditor had requested more time to complete their internal oversight and assurance processes before issuing its formal audit opinion.

The principal reason for this was due to the additional procedures required in connection with the first-time audit and consolidation of an enlarged Company following three transformational acquisitions over the financial year 2022. These transactions included both whole business acquisitions, carve-outs, debt financing and a 351% increase in headcount.

The audited results for financial year 2022 were published on 19 May 2023, which fell outside of the deadline required by the Financial Conduct Authority's Disclosure and Transparency Rules for the publication of audited financial statements. As a result, the listing of the Company's shares was suspended from trading from 7.30am on 2 May 2023 until the 22 May 2023.

Over the course of the year, the Committee and I have concentrated on ensuring consistency and continued accuracy of financial reporting, compliance with our debt covenants, trading updates and monitoring the performance of the external auditors.

On 5 December 2023, I received a letter from the FRC following their review of the 2022 annual report and accounts. The FRC asked us to clarify the basis on which we did not eliminate the full amount of unrealised gains on sales made to WiseWave. We provided a satisfactory explanation and the FRC closed this enquiry.

The FRC also asked us to explain how we had concluded that the offsetting criteria in IAS 32 'Financial Instruments: Presentation' had been met in relation to our disclosure of financial assets by foreign currency that indicated that a credit balance was included in within cash and cash equivalents in the balance sheet. We explained the events that led to the credit balance and confirmed that there were no other material credit balances within cash and cash equivalents. Given the particular circumstances surrounding the issue, the FRC did not consider it proportionate to pursue the matter further.

The FRC's role is to consider compliance with reporting requirements, not to verify the information provided. Their review was based solely on our annual report and accounts and does not benefit from detailed knowledge of our business nor an understanding of the underlying transaction entered into.

Whilst this Audit Committee report contains some of the matters addressed during the year, it should be read in conjunction with the external auditor's report and the financial statements of the Group and Company in general.

The Audit Committee reviewed significant accounting and other related matters with appropriate challenge and debate. The Audit Committee has reviewed the content in the annual report and believes that this explains our strategic objectives and is fair, balanced and understandable.

Purpose and role

The role of the Audit Committee is to assist with the Board's oversight responsibilities in relation to the Group's financial and narrative reporting, the effectiveness of the internal control and risk management framework, internal audit (where appropriate) and the independence and effectiveness of the external auditor. The following sections of this report describe the key activities of the Audit Committee in each of these areas. The Board reviewed and approved the terms of reference of the Audit Committee. For more information on the Committee's terms of reference visit: <https://awavesemi.com/investors/corporate-governance/>.

Committee composition

The Audit Committee is comprised entirely of independent Non-Executive Directors. The Audit Committee is chaired by myself and its other members are Victoria Hull, Michelle Senecal de Fonseca and David Reeder. The UK Corporate Governance Code 2018 (the 'Code') recommends that the Audit Committee should comprise at least three Independent Non-Executive Directors and that at least one member has recent and relevant financial experience. The Board considers that the Audit Committee as a whole complies with the requirements of the Code in these respects.

Meetings and attendance

The Committee has a structured forward-looking planner which reflects the financial cycle of the Company. This planner drives the business to be considered at each meeting and is regularly reviewed in conjunction with the Company Secretary and management to ensure that it adequately reflects any areas identified for additional focus.

Five scheduled meetings were held in 2023, with six ad hoc meetings. The Executive Chair, Chief Executive Officer, Chief Financial Officer and KPMG as external auditor regularly attend the meetings.

Before each meeting, the Committee Chair meets with the CFO and the external auditor to ensure there is a shared understanding of the key issues to be discussed. Committee meetings are held in advance of Board meetings to facilitate an effective and timely reporting process. The Committee Chair provides a report to the Board following each meeting.

The Committee meets privately without management present, as necessary, and also privately with the CFO after each scheduled meeting. Private meetings are also held at least once a year with the external auditor to allow any issues of concern to be raised.

Committee evaluation

This year, we conducted an internally facilitated evaluation of Board effectiveness. As part of this assessment, our performance as a Committee was thoroughly examined. I am delighted to report that the evaluation affirmed our effective operation, and the Board draws assurance from the quality of our work.

The quality and length of risk reporting emerged as an area requiring greater attention. We anticipate that our new Chief Financial Officer will address this matter in 2024.

The Committee members possess a diverse and substantial background in recent and relevant financial and commercial experience across various industries. Furthermore, each member brings competence that is directly applicable to our sector. For additional insights, you can explore their biographies.

Focus and key areas in 2023

One area of focus for the Committee was the need for a continued improvement of the finance systems. The Company had established systems following the IPO but these have needed to be reviewed in light of the acquisitions and changing nature of the business. Along with the CFO, a thorough review of the needs of the business was conducted and this resulted in the selection of an Enterprise Resource Planning (ERP) solution.

The Committee also had deep-dive sessions on talent, capabilities and organisational structure in finance, and assessed the review of the insurance placements and coverage. As a result, the D&O insurance has been moved from a captive and third party combination to a third party cover. In addition, the Committee continues to monitor the need for a permanent internal audit function.

Audit, risk and internal control continued

AUDIT COMMITTEE REPORT

Focus areas for 2024

Cybersecurity will be a notable focus for the Committee during this coming year.

The Audit Committee will monitor progress of the implementation of the ERP solution during the course of the year. We will also assist management with the review of post-admission compliance, including the Delegation of Authority matrix and other internal control improvements.

Financial reporting

The primary role of the Audit Committee in relation to financial reporting is to review and monitor the integrity of the financial statements, including annual and half-year reports, results announcements, and any other formal announcements relating to the Group's financial performance.

In considering the Group's half-year report for the six months ended 30 June 2023, the Committee conducted a page turn of the report at its meeting in September 2023 and subsequently recommended the report to the Board for approval.

The Audit Committee approved the planned scope of the audit of the Company's and Group's 2023 annual financial statements in November 2023, including materiality, the audit cycle and the proposed timetable.

This Audit Committee report will show how the Company's financial reporting process is monitored and reviewed.

In the preparation of the Company's and Group's 2023 annual financial statements, the Audit Committee has assessed the accounting principles and policies adopted, and whether management had made appropriate estimates and judgements. The Audit Committee also reviewed and challenged the alternative performance measures used by the Group. This review included evaluating our accounting policies as they relate to the alternative performance measures, the selection and overall presentation of the alternative performance measures and the clarity and consistency of the reconciliations to IFRS measures.

In doing so, the Audit Committee discussed management reports and enquired into judgements made. The Audit Committee reviewed the reports prepared by the external auditor on the 2023 annual report.

Jan Frykhammar

Chair of the Audit Committee

23 April 2024

The Audit Committee, together with management, identified significant areas of financial statement risk and judgement as described below.

Description of significant area

Revenue recognition

Revenue recognition for the Group's revenue streams is complex. This is an area of focus due to the nature of the licensing transactions requiring management to exercise significant judgement as well as the revenue recognition treatment of new revenue streams acquired with the acquisitions of Precise-ITC, OpenFive and Banias.

Capitalisation of R&D expenses

The Group has capitalised a significant amount of expense related to investments in products expected to have revenue in the future, and therefore accounting for R&D capitalisation is a key area of focus due to the level of judgement involved.

Work undertaken by the Audit Committee and outcomes

The Committee reviewed the assumptions and disclosures around revenue recognition made by management including critical judgements required following the Group's acquisitions of Precise-ITC, OpenFive and Banias and the expansion of the Group's business model to include silicon products.

The Committee was satisfied with the explanations provided and conclusions reached in relation to revenue recognition and the Group's compliance with IFRS 15.

For the R&D capitalised development expenditure, the Committee considered the key judgements made in determining project costs eligible for capitalisation under the Group's R&D capital expenditure policy. This includes judgements made in future cost estimates and future revenue expectations. The Committee noted that the projects had been extensively reviewed, including key forecast assumptions, by the management team.

Key forecast assumptions included estimated future internal and external expenditure, including external capital expenditure, progress to date, and expected cash flow from future sales.

The Committee subsequently approved the amount of R&D capitalised for 2023.

Description of significant area

Going concern

The Group's going concern assessment assumes that there will be no further investment in WiseWave and that WiseWave will be adequately funded by external financing sources to continue to discharge its liabilities with the Group.

WiseWave contract asset recoverability

Having fulfilled the IP licence performance obligations in the five-year subscription licence agreement with WiseWave at the end of 2023, the Group has recognised all remaining IP licence revenue in the agreement and has also recognised a contract asset of US\$42.4m, which is due to be settled by WiseWave over the remainder of the term of the agreement. Judgement has been used in determining the likely recoverability of this contract asset and the level of any credit loss provision required.

Work undertaken by the Audit Committee and outcomes

The Committee challenged management on the assumptions used in the going concern assessment and particularly whether the Group would be required to provide additional funding to WiseWave during the going concern period.

The Committee was satisfied that while there is the ability for the Group to invest further in WiseWave, there is no obligation or intention to do so and hence the Committee agreed with the conclusions reached in the going concern assessment.

Management have high visibility of the operations and prospects of WiseWave through the directorships Alphawave holds on WiseWave's board. Management have explained to the Committee WiseWave's historic payment pattern, its near-term funding plans (including the prospects of securing funding from external parties other than Alphawave) and the actions available to Alphawave in the event of non-payment by WiseWave. The Committee is satisfied with management's assessment that no additional expected loss provision is required for the WiseWave contract asset and that it is appropriate to deem it recoverable.

Fair, balanced and understandable

At the request of the Board, the Audit Committee has reviewed the content of the 2023 annual report and considered whether, taken as a whole, in its opinion it is fair, balanced and understandable and provides the information necessary for shareholders to assess the Group's position, performance, business model and strategy. The Committee was provided with an early draft of the annual report and provided feedback on areas where further clarity or information was required in order to provide a complete picture of the Group's performance. The final draft was then presented to the Audit Committee for review before being recommended for approval by the Board. When forming its opinion, the Audit Committee reflected on discussions held during the period and reports received from the external auditor, and the following measures were adopted to ensure that this annual report meets that requirement:

- > factual content was verified by management;
- > members of senior management undertook a comprehensive review of the document to consider messaging and balance;
- > the Audit Committee reviewed a full draft of the document, together with a summary of management's approach to the preparation of the narrative sections and the annual financial statements;
- > the Audit Committee considered whether there was consistency between the key messages in this annual report and the Group's position, performance and strategy, and between the narrative sections and the Group's annual financial statements;
- > it also considered whether all key events reported to the Board and its Committees during the year, both positive and negative, were adequately reflected, together with reporting by the external auditor of any material inconsistencies;
- > the Audit Committee reviewed and challenged the use of alternative performance measures by the Group as described in the financial review;
- > a comprehensive review of the entire annual report was carried out by the Directors; and
- > feedback from the Audit Committee and other Directors on areas that would benefit from further clarity was incorporated into this annual report ahead of final approval.

Audit, risk and internal control continued

AUDIT COMMITTEE REPORT

Fair, balanced and understandable continued

Following the Committee's review, the Directors confirm that, in their opinion, the 2023 annual report, taken as a whole, is fair, balanced and understandable and provides the information necessary for shareholders to assess the Group's position and performance, business model and strategy.

Risk management and internal control

The Audit Committee's responsibilities include a review of the risk management systems and internal controls to ensure that they remain effective and that any identified weaknesses are properly dealt with. The Audit Committee:

- > reviews annually the effectiveness of the Group's internal control framework; and
- > reviews reports from the external auditor on any issues identified in the course of their work, including any internal control reports received on control weaknesses, and ensures that there are appropriate responses, from management.

The Audit Committee's responsibilities include a review of the risk management systems and internal controls to ensure that they remain effective and that any identified weaknesses are properly dealt with. The Group has internal controls and risk management systems in place in relation to its financial reporting processes and preparation of consolidated accounts. The internal control systems include the elements described below.

Element	Approach and basis for assurance
Control environment	The Group is committed to the highest standards of business conduct and seeks to maintain these standards across all of its operations. The Group has adopted a Code of Business Conduct which provides practical guidance for all staff. There are also supporting Group policies and employee procedures in place for the reporting and resolution of suspected fraudulent activities. The Group has an appropriate organisational structure for planning, executing, controlling and monitoring business operations in order to achieve Group objectives. Lines of responsibility and delegations of authority are documented.
Risk assessment	Whilst risk management is a matter for the Board as a whole, the day-to-day management of the Group's key risks resides with the senior management team and is documented in a risk register. The Executive Risk Committee is responsible for reviewing the risk register. A review and update of the risk register is undertaken by the Audit Committee on an annual basis. The management of identified risks is delegated to the senior management team, and regular updates are given to executive management at monthly meetings.
Control activities	The Group and its operating units are continuing to improve the control procedures designed to ensure complete and accurate accounting for financial transactions. Measures taken during 2023 include expanding the finance team capabilities, further management reviews, formalising controls, strengthening spreadsheet controls and a new ERP system scheduled for 2024.
Monitoring and corrective action	<p>The Audit Committee meets at least four times a year and, within its remit, reviews progress with improvements and the effectiveness of the Group's system of internal controls.</p> <p>In addition to these internal assurances, the Audit Committee took into account the findings from the external auditor's evaluation of the internal control environment performed during the audit and feedback from the work of a specialist internal controls consultant, as well as its own observations throughout the period under review. The Audit Committee acknowledged the findings of the external auditor in relation to the Group's risk management and internal control systems and where areas for improvement were identified, there were processes in place to ensure that the necessary actions would be taken by management and that these outcomes would be monitored.</p> <p>The Board considered the Audit Committee's findings in relation to the effectiveness of the Group's systems of risk management and internal control, and was satisfied that throughout the year under review and up to the Last Practicable Date, the Group's risk management and internal control environment continued to be effective.</p>

Going concern and viability statement

The Audit Committee reviewed management's schedules supporting the going concern assessment and viability statements. These included the Group's medium-term plan and cash flow forecasts for the period to end H1 2024.

The Audit Committee discussed with management the appropriateness of the three-year period and discussed the correlation with the Group's principal risks and uncertainties as disclosed on pages 74 to 77. This three-year period aligns with the Group's internal forecasting framework, reflects the Group's high growth and evolving financial profile and aligns with the Group's external financial guidance.

The feasibility of mitigating actions and the potential speed of implementation to achieve any flexibility required were discussed. Scenarios covering events that could adversely impact the Group were considered.

The Audit Committee evaluated the conclusions over going concern and viability and the disclosures in the financial statements and satisfied itself that the financial statements appropriately reflect the conclusions.

For additional detail, please refer to the external auditor's report and strategic report contained in this annual report.

External auditor

During 2023, the Audit Committee approved the audit plan and fee for the period ending 31 December 2023 and reviewed KPMG's findings in respect of the audit of the financial statements for the period ended 31 December 2022. The Audit Committee regularly met separately with representatives from KPMG without management present and with management without representatives of KPMG present, to ensure that there were no issues in the relationship between management and the external auditor which it should address.

The Committee has reviewed, and is satisfied with, the independence of KPMG LLP as the external auditor.

Non-audit services provided by the external auditor

The external auditor is primarily engaged to carry out statutory audit work. There may be other services where the external auditor is considered to be the most suitable supplier by reference to their skills and experience. It is the Group's practice that it will seek quotes from several firms, which may include KPMG, before engagements for non-audit projects are awarded.

Contracts are awarded based on individual merits. The Audit Committee oversaw the application of a formal policy on the procurement of non-audit services. This policy is in place for the provision of non-audit services by the external auditor, to ensure that the provision of such services does not impair the external auditor's independence or objectivity and will be assessed going forward in line with the FRC's Ethical and Auditing Standards.

The review of the half-year report, an assurance-related non-audit service, was approved as part of the Audit Committee approval of the external audit plan. All permitted non-audit services require approval in advance by either the Audit Committee Chair, the Audit Committee or the Board, subject to the cap of 70% of the fees paid for the audit in the last three consecutive financial years.

Approved and signed on behalf of the Audit Committee.

Jan Frykhammar

Chair of the Audit Committee

23 April 2024

Remuneration

DIRECTORS' REMUNERATION REPORT



“The strategic importance of our employees is reflected in the remuneration structure across the Group.”

Victoria Hull

Chair of the Remuneration Committee

Dear shareholder

As Chair of the Remuneration Committee, I am pleased to present our third report on Directors' remuneration.

This report is divided into three sections:

- > this introductory letter, which describes the main decisions made in respect of and during the year, as well as detail on the context in which these decisions were made;
- > the Remuneration Policy (the 'policy'), which sets out the approach the Remuneration Committee takes on Directors' pay, as approved by shareholders at the AGM in 2022; and
- > the annual report on remuneration, which describes the details of what has been paid to Directors in respect of 2023 and an outline of how we propose to implement the policy in 2024.

This year the Committee's focus has been on implementing the Policy in line with the Group's long-term business strategy, whilst maintaining our commitment to high standards of corporate governance.

Purpose and role

The Remuneration Committee is a formal committee of the Board and its remit is set out in terms of reference, which can be found on the Company's website <https://awavesemi.com/investors/corporate-governance/>.

The Committee's performance against these terms of reference is reviewed on an annual basis and the Committee is satisfied that it has acted in accordance with its terms of reference during the year.

The primary purposes of the Committee, as set out in its terms of reference, are:

- > to make recommendations to the Board on the Group's framework of executive remuneration;
- > to determine individual remuneration packages within that framework for the Executive Directors and certain senior executives; and
- > to oversee the operation of the Group's share schemes.

The Committee is authorised to seek information from any Director and employee of the Group and to obtain external advice.

The Committee is solely responsible for the appointment of external remuneration advisers and for the approval of their fees and other terms.

No Director or other attendee takes part in any discussion regarding his or her personal remuneration.

Committee composition

The Remuneration Committee is comprised entirely of independent Non-Executive Directors. I am the Chair and its other members are Jan Frykhammar and Paul Boudre. The biographies of each member of the Committee are set out on the Board of Directors pages.

Meetings and attendance

Four scheduled meetings were held in 2023, with three ad hoc meetings. The Committee asked the Executive Directors and the VP of HR to attend meetings and assist its discussions. This excluded matters connected to their own remuneration, service agreements or terms and conditions of employment. The Committee takes care to recognise and manage conflicts of interest when receiving views from Executive Directors or senior management. The Committee reserves the right to conduct in full or start its meetings without executive management present when it wishes to do so. The Committee and the Chair also engage regularly with the remuneration consultants and Head of Governance.

Committee evaluation

The Committee's performance and effectiveness were reviewed as part of the wider Board evaluation. The review stated that the Committee was well chaired and that all members allocated sufficient time to the Committee with quality discussion and debate.

Focus and key activities in 2023

The following matters were considered and discussed in 2023:

Dilution

The Committee is keenly aware of the dilutive effect of share-based compensation and monitors this closely, balancing with a need for the Company to pay competitively in order to attract and retain talented individuals.

CFO change

As announced in May 2023, Daniel Aharoni stepped down as CFO and as a member of the Board.

Details of Daniel's remuneration arrangements relating to his time on the Board were set out in the section 430(2B) statement and can also be found on the following pages.

Rahul Mathur joined as CFO in October 2023. Rahul has a wealth of experience in senior finance and leadership roles. We are confident that his highly relevant skills and experience will help us to take advantage of the significant opportunities before us and will be invaluable as we continue to build our business.

Rahul is not a Board Director and his remuneration package is not subject to the Directors' remuneration report. However, the Committee, along with the Nomination Committee, were involved in reviewing and approving the remuneration package.

Remuneration in context

The Committee's approach to governing executive pay at Alphawave Semi is to ensure a clear and rigorous focus on aligning pay with performance, but equally to give due consideration to all our key stakeholders.

With that in mind, this report contains the key drivers of our decisions in relation to the Executive Directors' remuneration outcomes for the financial year.

This year we have operated under the current Remuneration Policy, which was approved by shareholders at the AGM in June 2022.

It is relevant context to note that, as founders of the Company, the Executive Directors retain significant shareholdings in the Company, which amount to over 100 times their respective salaries. As a result of these shareholdings, the Executive Directors are highly aligned with Group financial performance and the interests of our investors.

Corporate performance

Strategic priorities

- > We diversified our business in terms of end-customers, end-markets, product portfolio and expertise, and geographies. We continued to increase our revenue-generating end-customer base from 80 to 103.
- > We increased our engineering and operational capabilities, scaling headcount from 695 to 829 by 31 December 2023.
- > We expanded our product offering to address lower process nodes.

Financial performance

- > Bookings for the year were up by 68% to US\$383.9m (FY 2022: US\$228.1m).
- > We grew our revenues for the year by 74% to US\$321.7m (FY 2022: US\$185.4m).
- > We delivered an increase of 34% in adjusted EBITDA to US\$62.6m (FY 2022: US\$46.8m) representing an adjusted EBITDA margin of 19%.

Remuneration continued

DIRECTORS' REMUNERATION REPORT

Remuneration in context continued

Stakeholder experience

Our shareholders

- > We are committed to take wider stakeholder experience into account when making decisions on executive pay and we have noted the performance of the shares and the factors contributing to that performance.
- > Promoting share ownership is a key principle of Alphawave Semi's approach to remuneration across the Group. We want all employees to be aligned with shareholders so they can share in the success of the Group and be invested in its growth story. The Executive Chair and Chief Executive Officer, as founders of the business, embody this philosophy, having retained significant stock ownership in the Company on IPO, to ensure they are aligned to the experience of new (and indeed, old) investors in the Company.

Our employees

- > The 2023 average annual salary increase for the wider workforce was 10% and all employees are eligible for an annual bonus. No cash bonus was paid out in 2023.
- > The philosophy behind our compensation programme is to support the Group's mission and values. Aligned with an effective communication plan, it is designed to support, reinforce and align our values, business strategy, operational and financial needs with a goal of growth and profitability. In alignment with our culture, we communicate openly about the goals of the business. Alphawave Semi works hard to administer the compensation programme in a manner that is consistent and free of discrimination and is equitable to all employees regardless of race, ancestry, place of origin, ethnic origin, citizenship, creed, gender, sexual orientation, age, marital status, family status or disability.
- > As a Canada-originated business competing in the semiconductor industry, many of our employees are situated in Canada or the United States. It is critical to our success to ensure this talent is remunerated competitively. As such, we consider a global high-tech talent market when benchmarking pay for the organisation.
- > Alongside our Workforce Engagement NED, the Committee is committed to ensuring it has good oversight over pay practices and policies of the wider workforce and ensuring that any decisions made about executive remuneration are considered in the context of the wider workforce.

2023 remuneration

Taking the context set out above into account, the Committee made the following decisions in respect of remuneration in 2023:

Base salary

No increases were made to the salaries of Executive Directors.

CFO transition

As announced on 4 May 2023, Daniel Aharoni stepped down as CFO and an Executive Director of the Company following the publication of the audited results of the Company for FY 2022. Christian Bowsher, Senior Director of Finance, served as interim CFO until Rahul Mathur was appointed as CFO with effect from 30 October 2023.

The Committee applied the Directors' Remuneration Policy and the terms of his employment contract in determining Daniel Aharoni's remuneration arrangements. He will receive monthly payments of base salary for his twelve-month notice period, subject to mitigation and pay in lieu of accrued but untaken holiday. He was not eligible for a bonus or long-term incentive award for the 2023 financial year. Any outstanding deferred bonuses will continue to be payable in accordance with their terms. His outstanding long-term incentive award lapsed in full. His unvested restricted shares acquired prior to IPO will continue to vest each month until December 2024 in accordance with their terms. He remains subject to post-employment shareholding requirements. Further details are included in the annual report on remuneration on page 110.

Christian Bowsher and Rahul Mathur are not directly subject to the Remuneration Policy as they are not Executive Directors of the Company.

Given the above, the fact that the Executive Chair and Chief Executive Officer waived participation in annual bonus and LTIP for 2023, and that Sehat Sutardja is not entitled to participate in any bonus or variable compensation arrangement, no Executive Directors participated in incentive arrangements for the year. There are therefore no details of incentive outcomes for the year to be disclosed.

2024 Remuneration Policy and implementation

The Remuneration Policy was approved by a shareholder vote of 99.97% at the AGM in 2022 and is designed to ensure a strong link between remuneration, strategic priorities and the delivery of objectives.

The Policy includes provision for Executive Directors to participate in a Short-Term Incentive Plan (STIP) and Long-Term Incentive Plan (LTIP). However, in the first two years of the Policy the Executive Directors chose to waive participation in these arrangements given the very early stage of the Company's development. In keeping with this philosophy, the Executive Directors also chose to forgo pay rises and salaries were consciously positioned at the low end of comparable FTSE 250 salaries. Except for 2024, where the Chief Executive Officer will have an increase of 51% to his May 2024 salary.

In the two and a half years since the IPO in May 2021 the business has made significant progress towards consolidating the strategy to be a leading provider of connectivity technology for digital infrastructure markets, including the acquisitions of Precise-ITC, OpenFive and Baniyas Labs which represent steps towards a vertically integrated business model. These acquisitions have added greater geographic and operational complexity to the Company's operations. But the results are tangible. This is reflected in a 10x increase in revenue from the year before the Company's IPO, while continuing profitable operations – and an 11x increase in company headcount. The Group's goal is to achieve US\$450m in revenue by 2025 and US\$1bn of revenue by 2027. Our FY 2023 financial performance reflects good progress towards those goals, with 74% year-on-year revenue growth alongside a year-on-year increase in adjusted EBITDA of 34%.

Given this swift evolution, the Company is now at a very different stage and the Board strongly believes that it is appropriate to recast the Executive Director packages and offer market competitive remuneration to the CEO and Executive Chairman and better align the executive team remuneration generally. With this context, and in view of the exceptional and dynamic leadership of the CEO and Executive Chairman, the Board wishes to offer market rate salary, bonus and equity incentives.

The Remuneration Committee offered the Executive Chairman the opportunity to participate in the 2024 incentive arrangements but at the present time John Lofton Holt will continue to waive such participation.

No changes are proposed to the arrangements for Sehat Sutardja.

The table below summarises Tony Pialis' arrangements in 2023 and those proposed for 2024:

Director	2023	Proposed 2024
Base salary	£450,000	£680,000
STIP	N/A – waived	Maximum opportunity of 150% of salary
LTIP	N/A – waived	LTIP award of face value 300% of salary with stretching performance conditions

The Committee notes that, although Alphawave Semi is a UK listed company, in practical terms the talent market with which we compete for senior executive talent is made up of companies within the semiconductor sector, primarily based in North America. The levels of remuneration offered by these companies (especially in terms of long-term incentive awards) are significantly above typical levels in the UK and those in our proposals for 2024.

Notably, such companies commonly award restricted stock units with no performance criteria and vesting at least annually. However, the Committee believes that at this juncture it is appropriate to operate within the limits of the existing shareholder-approved Policy rather than look to amend this.

Base salary

At the time of the IPO the salary level was deliberately positioned at the lower end of salaries for CEOs in the FTSE 250. The Committee's intention is that the CEO new salary level will represent a one-time 'right-sizing' adjustment to a market competitive level and that future increases will be modest and generally no greater than increases for our wider workforce while the Company remains at the current scale.

Annual Bonus

The payout of STIP will be subject to the achievement of stretching performance targets based on Revenue, EBITDA and Operating Cash Flow. The Committee decided to introduce an Operating Cash Flow element this year in response to feedback received from shareholders during the consultation exercise and our ongoing focus on optimising operational efficiency and enhancing liquidity alongside sustainable growth. One-third of any bonus will be deferred into shares for a period of two years. Further details are set out on page 116.

LTIP

The vesting of LTIP awards will be linked to the achievement of stretching performance targets, closely aligned with the creation of value for shareholders. Consistent with previous years, these will be based on Relative Total Shareholder Return (compared to two groups: the FTSE 250 and the FTSE All-World Technology Index) and Earnings Per Share growth over a three-year period.

Full details on the Policy and further information on the proposed implementation of the Policy can be found on the following pages.

I hope you find that this report clearly explains the remuneration approach we have taken and how we will implement the Policy in 2024. I look forward to your support at the 2024 AGM in respect of the resolution relating to this report.

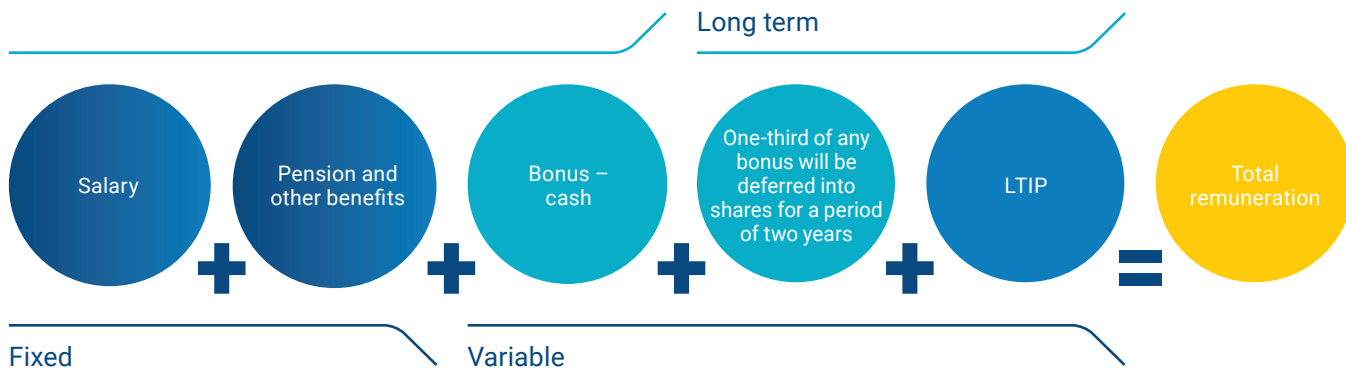
Victoria Hull

Chair of the Remuneration Committee
23 April 2024

Remuneration continued

DIRECTORS' REMUNERATION REPORT

Elements of the Directors' remuneration



How remuneration links to our strategy

Measuring outcomes

Strategy in action



Market leadership
Maintain pace of innovation and market leadership by attracting and retaining talent



Expansion
Land and expand: broader and deeper customer base



Innovation
Leverage our IP to expand our product portfolio and grow our custom silicon business

2024 Annual bonus

- > Revenue.
- > EBITDA.
- > Cash flow from operations before changes in working capital.

2024-25 LTIP

- > TSR.
- > EPS.

Remuneration at a glance

Component	Component	Component
Fixed pay Base salary level	<ul style="list-style-type: none"> > John Lofton Holt, Executive Chair: £450,000. > Tony Pialis, President & Chief Executive Officer: £450,000. > Sehat Sutardja, Executive Director: £85,000 (part-time working arrangement). > Daniel Aharoni, Chief Financial Officer: £365,000 (until he stepped down in May 2023). 	<ul style="list-style-type: none"> > John Lofton Holt, Executive Chair: £450,000. > Tony Pialis, President & Chief Executive Officer: £680,000. > Sehat Sutardja, Executive Director: £85,000 (part-time working arrangement).
Benefits	<ul style="list-style-type: none"> > Private medical cover for the President & Chief Executive Officer, and Chief Financial Officer (until May 2023). The Executive Chair declined medical coverage. 	<ul style="list-style-type: none"> > No change from 2023.
Pension	<ul style="list-style-type: none"> > Only the Chief Financial Officer participated (until May 2023), with a 10% of salary contribution level, aligned with wider workforce. 	<ul style="list-style-type: none"> > No Executive Directors will participate in 2024.
Variable pay Annual bonus	<ul style="list-style-type: none"> > Executive Chair and President & Chief Executive Officer were eligible but waived participation, therefore no Executive Directors participated in bonus in respect of 2023. 	<ul style="list-style-type: none"> > Tony Pialis will participate in 2024 with a maximum opportunity level of 150% of base salary. > No changes for other Executive Directors.
Long-term incentives	<ul style="list-style-type: none"> > Executive Chair and President & Chief Executive Officer eligible but waived participation, therefore no Executive Directors participated in LTIP in respect of 2023. 	<ul style="list-style-type: none"> > Tony Pialis will participate in 2024 with an award level of 300% of base salary. > No changes for other Executive Directors.

Our governance

Our link between remuneration and strategy

Alphawave Semi's strategic priorities as detailed on page 20 are designed to maintain our leading technology position, enabling it to expand its position at its existing customers and win new customers, generating profitable growth whilst retaining and motivating employees.

The Remuneration Policy (the 'policy'), which was approved by a vote of 99.97% at the AGM in 2022, is designed to ensure a strong link between remuneration, the strategic priorities and delivery of objectives.

Incentive scheme targets are carefully considered by the Committee to ensure they reward performance and are correctly calibrated. Targets used in the incentive schemes are then monitored and progress measured by reference to many of the reported KPIs. With the continuing development of the Group's approach to sustainability, we are committed to understanding the most material ESG factors to Alphawave Semi as a business with a view to embedding these into the executive remuneration framework, to align with the Group's strategy, in future years.

For further details on how our Policy links to strategy, see the Policy table on pages 107 to 110.

Remuneration continued

DIRECTORS' REMUNERATION REPORT

Our governance continued

UK Corporate Governance Code 2018 (the 'Code') – Provision 40 alignment

The table below explains how the Remuneration Committee addressed the factors set out in Provision 40 of the Code when determining the Remuneration Policy. As founders of the Company, the Executive Directors retain significant shareholdings in the Company. As a result of these shareholdings, the Executive Directors are highly aligned with Group financial performance and the interests of our investors.

Clarity

Remuneration arrangements should be transparent and promote effective engagement with shareholders and the workforce.

The Remuneration Committee has aimed to incorporate simplicity and transparency into the design and delivery of our Remuneration Policy. The remuneration structure is simple to understand for both participants and shareholders and is aligned to the strategic priorities of the business.

We aim for disclosure of the Policy and how it is implemented to be in a clear and succinct format.

Simplicity

Remuneration structures should avoid complexity and their rationale and operation should be easy to understand.

Our remuneration arrangements for Executive Directors are purposefully simple, comprising of fixed pay (salary, benefits, pension/pension salary supplement), a short-term incentive plan (annual bonus scheme) and a long-term incentive plan (LTIP).

Risk

Remuneration arrangements should ensure reputational and other risks from excessive rewards, and behavioural risks that can arise from target-based incentive plans, are identified and mitigated.

The Policy includes a number of points to mitigate potential risk:

- > defined limits on the maximum opportunity levels under incentive plans;
- > provisions to allow malus and clawback to be applied, where appropriate;
- > performance targets calibrated at appropriately stretching but sustainable levels; and
- > bonus deferral, LTIP holding periods, in-employment and post-employment shareholding requirements ensuring alignment of interests between Executive Directors and shareholders and encouraging sustainable performance. For founder Executive Directors, actual shareholding levels are far in excess of these requirements, providing a strong alignment between individual and investor interests.

Predictability

The range of possible values of rewards to individual Directors and any other limits or discretions should be identified and explained at the time of approving the policy.

We aim for our disclosure to be clear to allow shareholders to understand the range of potential values which may be earned under the remuneration arrangements.

Proportionality

The link between individual awards, the delivery of strategy and the long-term performance of the Group should be clear. Outcomes should not reward poor performance.

A significant part of an Executive's reward is linked to performance with a clear line of sight between business performance and the delivery of shareholder value. For founder Executive Directors, the significant shareholding levels provide a strong alignment between individual and investor interests.

Alignment to culture

Incentive schemes should drive behaviours consistent with Group purpose, values and strategy.

The incentive arrangements and the performance measures used are strongly aligned to those that the Board considers when determining the success of the implementation of the Group's purpose, values and strategy. In determining that success, the Board has regard to the impact of the Group's purpose, values and strategy on the financial performance of the business, including the revenues and profitability, and how that performance is reflected in the Company's share price over the medium and long term. The Board is able to review targets, measures and weightings for both the short-term and long-term incentive plans on an annual basis to ensure that they continue to be aligned with the Group's purpose, values and strategy.

Remuneration Policy

This section sets out the Company's first Directors' Remuneration Policy which has been prepared in accordance with the Large and Medium-sized Companies and Groups (Accounts and Reports) Regulations. The Policy was subject to a binding shareholder vote at the 2022 AGM and became effective from the date of the AGM.

The Company is committed to maintaining high standards of corporate governance and to making consistent annual improvements in its corporate governance practices in order to reflect evolving legal requirements, critical ESG themes, investor expectations and wider stakeholder considerations.

Therefore, the principles of the Code were taken into account when developing this first Policy post-Admission to the LSE. The Committee will also seek to develop and maintain an open and constructive dialogue with current and future investors on the approach it takes to Director remuneration. In the event that any material changes to the Policy or its implementation are proposed, the Committee will engage in a consultation with shareholders as appropriate.

Purpose and link to strategy	Operation	Maximum opportunity	Performance measures
<p>Fixed remuneration</p> <p>Base salary</p> <p>To attract and retain executives of the right calibre to successfully develop and execute on an intensive and ambitious emerging markets business strategy aimed at driving shareholder returns over time.</p>	<p>Base salaries will typically be reviewed annually, with any increases normally effective from 1 January.</p> <p>Base salary levels take account of:</p> <ul style="list-style-type: none"> > the individual's role, performance and experience; > business performance, individual track record and the external environment; > salary increases for senior management and other employees; and > salary levels for comparable roles at relevant global businesses. <p>No recovery or withholding applies.</p>	<p>Whilst there is no prescribed maximum, salary increases will generally be in line with those of the wider workforce.</p> <p>Increases may be made above this level where the Committee considers it appropriate, including (but not limited to) a significant increase in the scale, scope, market comparability or responsibilities of the role, bearing in mind potential growth and increased complexity of the business.</p> <p>Where an individual has been appointed on a salary lower than market levels, increases above the wider workforce may be made to recognise experience gained and performance in the role.</p> <p>Such increases will be explained in the relevant year's annual report on remuneration.</p>	<p>None.</p>

Remuneration continued

DIRECTORS' REMUNERATION REPORT

Remuneration Policy table for Executive Directors continued

Purpose and link to strategy	Operation	Maximum opportunity	Performance measures
<p>Fixed remuneration</p> <p>Benefits</p> <p>To provide market-competitive benefits.</p>	<p>Benefits typically include participation in car schemes, private health insurance, disability insurance, travel insurance and life insurance. Where appropriate, other benefits may be offered, including, but not limited to, allowances for relocation.</p> <p>Executive Directors will be eligible to participate in all-employee share schemes which may be established in the future, on the same terms as other employees and subject to the limits defined in the plan rules.</p> <p>No recovery or withholding applies.</p>	<p>Benefits provided may vary by role and individual circumstance and are reviewed periodically.</p> <p>There is no overall maximum.</p>	<p>None.</p>
<p>Pension (or cash allowance)</p> <p>To provide market competitive retirement benefits in line with the global workforce.</p>	<p>Executive Directors may participate in a defined contribution scheme. Individuals may receive a cash allowance in lieu of some or all of their pension contribution.</p> <p>No recovery or withholding applies.</p>	<p>Pension contribution or cash payment is equal to the maximum employer contribution available to employees under the defined contribution scheme (currently 10% of salary) in line with the wider workforce.</p>	<p>None.</p>

Purpose and link to strategy	Operation	Maximum opportunity	Performance measures
<p>Performance-related variable remuneration</p> <p>Short-Term Incentive Plan (STIP)</p> <p>To provide alignment between the successful delivery of annual strategic business priorities and reward.</p> <p>Long-Term Incentive Plan (LTIP)</p> <p>To incentivise and reward participants over the long term for sustained performance and delivery of the business strategy and shareholder value.</p> <p>Provides longer-term alignment with the shareholder experience.</p>	<p>The bonus is earned based on the achievement of one-year performance targets and is delivered in cash or a combination of cash and deferred shares.</p> <p>At least one-third of gross bonus will be deferred into shares, typically for a period of two years. Dividend equivalents may be accrued on deferred shares.</p> <p>Malus and clawback provisions may be applied in exceptional circumstances as detailed in the notes to this table.</p> <p>LTIP awards will typically be made annually and consist of rights to shares (or a cash equivalent) subject to performance conditions. Awards will normally vest no less than three years after the respective award grant date, based on satisfaction of the defined performance metrics.</p> <p>Vested shares are subject to a holding period of two years (shares may be sold at vesting to satisfy any tax-related liabilities). Dividend equivalents may be accrued on shares.</p> <p>Malus and clawback provisions may be applied in exceptional circumstances as detailed in the notes to this table.</p>	<p>The overall policy maximum for Executive Directors is 180% of base salary.</p> <p>The bonus pays out from threshold at 25% to target at 50% and 100% at maximum performance.</p> <p>The overall policy maximum for Executive Directors is 300% of base salary.</p> <p>For threshold performance, payment starts at 25%.</p>	<p>Performance measures, weightings and targets are reviewed annually and set at the beginning of the year to ensure they are stretching and they continue to support the achievement of the Group's key strategic priorities. The bonus will be based on a combination of financial, operational, strategic and individual measures. At least 60% of the bonus will be based on financial measures, which may include (but are not limited to) revenue and adjusted EBITDA. The Committee has the discretion to adjust the bonus outcomes to ensure they are reflective of underlying business performance and any other relevant factors. The Committee will consult with major shareholders where appropriate before the use of discretion to increase the outcome.</p> <p>The targets, measures and weightings will be determined annually by the Committee prior to the grant of the award.</p> <p>This is likely to include a market measure (such as relative TSR) and an internal financial measure.</p> <p>The Committee will set the measures and weightings each year, and has discretion to adjust the number of shares vesting from the formulaic application of the performance conditions based on a review of underlying performance of the Group. The Committee will consult with major shareholders where appropriate before the use of any material discretion to increase the formulaic outcome.</p> <p>For 2024, the Committee has selected relative TSR and EPS growth as the appropriate measures, as they align with long-term shareholder interests.</p>

Remuneration continued

DIRECTORS' REMUNERATION REPORT

Remuneration Policy table for Executive Directors continued

Purpose and link to strategy	Operation	Maximum opportunity	Performance measures
<p>Performance-related variable remuneration</p> <p>Shareholding policy</p> <p>To provide alignment between the interests of Executive Directors and shareholders over the longer term.</p>	<p>Shareholding guidelines will be 200% of base salary for all Executive Directors, to be built up over a five-year period from their date of appointment to the Board. For the purposes of the Policy, shares which are beneficially owned will count, as will unvested shares which are not subject to any performance conditions (on a net of tax basis).</p> <p>Post-cessation shareholding policy</p> <p>All Executive Directors will be required to maintain the in-employment guideline or their actual shareholding at the point of leaving for lesser of the two years post-cessation.</p>	<p>Not applicable.</p>	<p>Not applicable.</p>

Notes to the Policy table

Operation of incentive plans

The incentive plans will be operated within the Policy at all times and in accordance with the relevant plan rules and the Listing Rules. There are a number of areas over which the Committee retains flexibility, as detailed below:

- > who participates in each plan;
- > the timing and size of an award and/or payment (subject to any maximums indicated in the table above);
- > the performance measures, weightings and targets that will apply each year and any intra-period adjustments thereof;
- > treatment of leavers; and
- > amendments of plan rules in accordance with their terms.

Where appropriate, any use of discretion by the Committee will be disclosed in the relevant annual report on remuneration and may be subject to consultation with the Company's shareholders.

Malus and clawback provisions

Consistent with best practice, malus and clawback provisions will be operated at the discretion of the Committee in respect of both the annual bonus and LTIP where it considers that there are exceptional circumstances. Such exceptional circumstances include those relating to material misstatement of accounts, errors in calculating the LTIP award, corporate failure and a participant's conduct resulting in material reputational damage.

Clawback may be applied from the point of payment for the bonus for a period of up to three years and, for the LTIP, from vesting until the fifth anniversary of the award (or two years from vesting, for a three-year award).

Discretion

The Committee recognises the importance of ensuring that pay reflects performance aligned with the Group's strategy, ambitions and risk appetite.

Consequently, and in line with the Code, the Committee expects to review formulaic outcomes to ensure alignment with Alphawave Semi's long-term goals and shareholder and stakeholder experience, and may apply appropriate judgement and adjustments, upwards or downwards. In addition, the Committee may amend formulae, performance metrics and targets to reflect changes in Group strategy, acquisitions or disposals or other exceptional circumstances. Such exercise of judgement or discretion shall be disclosed in the remuneration report.

Existing arrangements

Payments may be made to satisfy commitments made prior to the approval of this Policy. This may include, for example, but without limitation, payments made to satisfy legacy arrangements agreed prior to an employee (and not in contemplation of) being promoted to the Board. All such outstanding obligations may be honoured, and payment will be permitted under this Policy.

Minor amendments

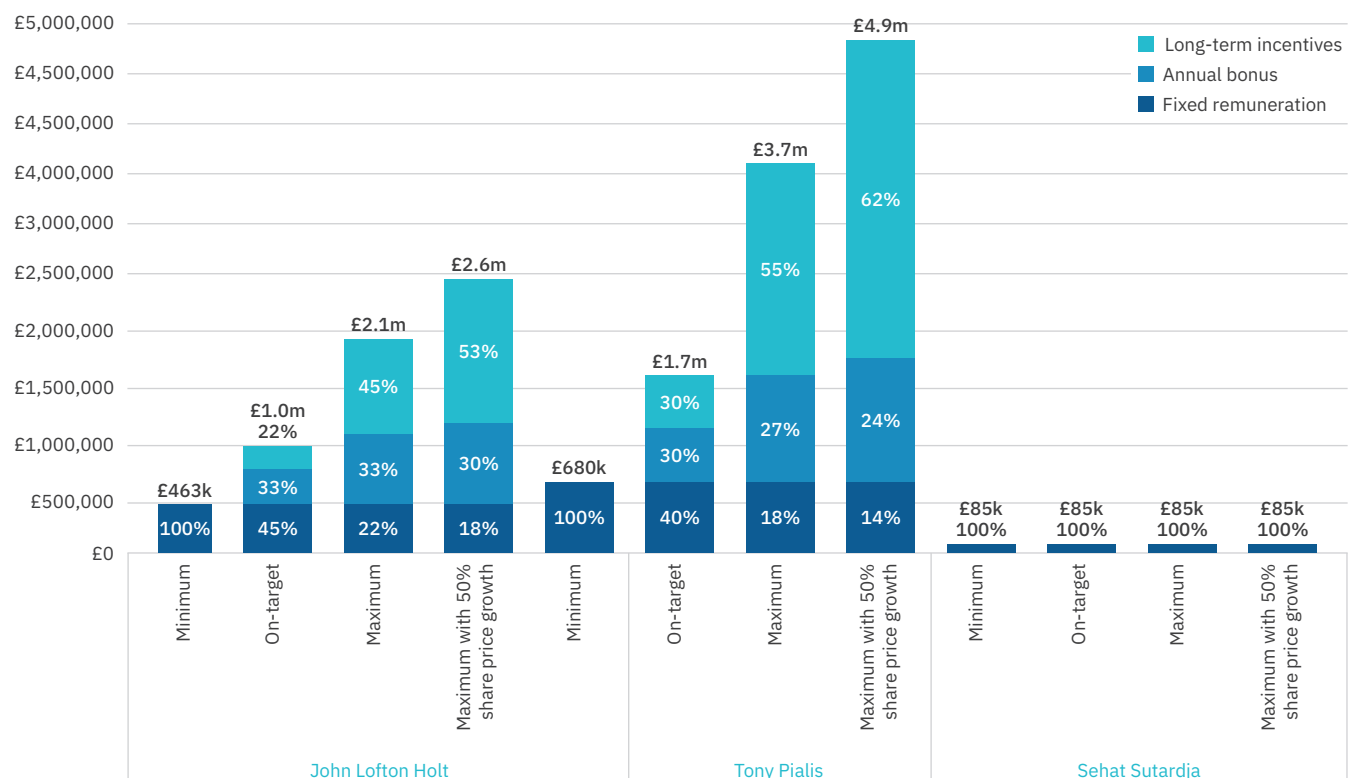
The Committee may make minor amendments to the Policy (for example for tax, regulatory, exchange control or administrative purposes) without obtaining shareholder approval.

Illustrations of application of the Policy

The graphs below provide estimates of the potential reward opportunity for the current Executive Directors and the split between the three different elements of remuneration under three different performance scenarios: 'Minimum', 'Target' and 'Maximum'. In line with the reporting regulations, a scenario assuming 50% share price growth over the three-year LTIP performance period is also shown below. The assumptions used for these charts are set out in the table below.

The bar charts are part shaded for the Executive Chair to show the theoretical entitlement under the Policy, for which he has opted to waive participation. Sehat Sutardja is not entitled to participate in any incentive arrangements.

Illustrative scenario analysis (2024)



The Remuneration Committee offered the Executive Chairman the opportunity to should participate in the 2024 incentive arrangements but at the present time John Lofton Holt will continue to waive such participation

Remuneration continued

DIRECTORS' REMUNERATION REPORT

Notes to the Policy table continued

Minimum	Fixed remuneration (salary and benefits) only No payout under the STIP or LTIP vesting
Target	Fixed remuneration 50% of maximum payout under the STIP 25% of maximum vesting under the LTIP
Maximum	Fixed remuneration 100% of maximum payout under the STIP 100% of maximum vesting under the LTIP
Maximum + 50% share price growth	Fixed remuneration 100% of maximum payout under the STIP 100% of maximum vesting under the LTIP 50% assumed share price growth over three-year LTIP performance period

The charts above are based on notional bonus opportunity of 150% of salary, LTIP award level of 300%, and assume a one-third bonus deferral.

Other than the 'Maximum scenario with 50% share price growth', no share price growth has been included in the charts above and it is assumed that no dividends or dividend equivalents are paid.

Recruitment remuneration

In agreeing a remuneration package for a new Executive Director, the structure and quantum of variable pay elements would reflect those set out in the Policy table above. Salary would reflect the skills and experience of the individual, and may be set at a level to allow future progression to reflect performance in the role. On recruitment, relocation benefits may be paid as appropriate.

This overall approach would also apply to internal appointments, with the provision that any commitments entered into before promotion, which are inconsistent with this Policy, can continue to be honoured under the Policy. Similarly, if an Executive Director is appointed following the Group's acquisition of or merger with another company, legacy terms and conditions would be honoured.

An Executive Director may initially be hired on a contract requiring 24 months' notice which then reduces pro rata over the first year of the contract to requiring twelve months' notice.

The Committee may award compensation for the forfeiture of awards from a previous employer in such form as the Committee considers appropriate taking account of all relevant factors including the expected value of the award, performance achieved or likely to be achieved, the proportion of the performance period remaining and the form of the award.

There is no specific limit on the value of such awards, but the Committee's intention is that the value awarded would be similar to the value forfeited.

Maximum variable pay will be in line with the maximum set out in the Policy table (excluding buy-outs). The Committee retains discretion in exceptional circumstances to make appropriate remuneration decisions outside the standard Remuneration Policy to meet the individual circumstances when:

- an interim appointment is made to fill an Executive Director role on a short-term basis; and
- exceptional circumstances require that the Executive Chair or a Non-Executive Director takes on an executive function on a short-term basis.

For Non-Executive Directors, the Board would consider the appropriate fees for a new appointment taking into account the existing level of fees paid to the Non-Executive Directors, the experience and ability of the new Non-Executive Director and the time commitment and responsibility of the role.

Directors' service contracts and letters of appointment

Executive Directors' contracts have rolling terms and are terminable on no more than twelve months' notice, with the exception of Sehat Sutardja, whose contractual notice period is one month. The key elements of the service contract for Executive Directors relate to remuneration, payments on loss of office and restrictions during active employment (and for twelve months thereafter). These restrictions include non-competition and non-solicitation of customers and employees.

Non-Executive Directors do not have service contracts but each has a letter of appointment. In accordance with the Company's Articles, following their appointment, all Directors must retire at each AGM and may present themselves for re-election. The Board may terminate their appointment at any time, on one month's notice. None of the Non-Executive Directors has a notice period or any provision in their letters of appointment giving them a right to compensation upon early termination of appointment.

Executive Directors' service contracts and Non-Executive Directors' letters of appointment are available to inspect at the Company's registered office.

Treatment of corporate events

The plan rules contain provisions relating to change of control. In general, outstanding awards would normally vest and become exercisable on a change of control, to the extent that the Committee determines that any applicable performance conditions have been satisfied at that time or are likely to be satisfied. Unless the Committee decides otherwise (or the award is a bonus deferral award), the number of shares vesting will also be reduced, reflecting the time period to the date of the event. Alternatively, awards may be exchanged for equivalent awards over shares in the acquiring company. Any holding period will come to an end on the date of the change of control.

The Committee can decide that similar treatment will apply on a demerger, delisting, distribution (other than an ordinary dividend) or other transaction which could affect the value of an award. The Committee can adjust the number or type of shares subject to an award and/or any exercise price to take account of any rights issue, demerger, special dividend or other variation of capital or similar corporate event.

Payments for departing Executive Directors Notice period and compensation for loss of office in service contracts

The Company can make payments in lieu of notice which is limited (except in the case of Tony Pialis) to base salary and contractual benefits. Any such payments can be made on a monthly basis with payments reduced by the amount of earnings from any alternative employment.

The employment agreement of Tony Pialis is governed by Canadian Law and any payment in lieu of notice would only include anything other than cash and benefits if required to do so by Canadian law.

Annual bonus

Upon termination, the annual bonus is only payable if the participant is considered to be a good leaver as determined by the Committee (which would include ill health, injury, disability, retirement, the employing company ceasing to be a member of the Group and redundancy, or in other circumstances if the Committee so decides).

In these circumstances, the payment will be pro-rated for the period of service during the financial year and will reflect the extent to which Group performance has been achieved (subject to Committee discretion).

Bonus deferral awards that have not yet vested will not lapse on the leave date but will continue in effect until they vest or lapse according to the terms of the plan. However, if a participant leaves because of misconduct or otherwise in circumstances in which their employment could have been terminated without notice, the award will lapse.

LTIP

An LTIP award which has not vested will automatically lapse on the date the participant leaves employment, except if they leave in circumstances detailed in the plan rules, such as ill health, injury, disability, retirement, the employing company ceasing to be a member of the Group and redundancy or in other circumstances, if the Committee so decides, the award will continue in effect (or may vest on or after leaving). Vesting of the award will be subject to the extent that performance conditions have been or are likely to be satisfied (as determined by the Committee), and any additional conditions as the Committee may impose. Unless the Committee decides otherwise, the number of shares that vest will be reduced to reflect the proportion of the period up to the vesting date which has elapsed by the date the participant left employment. The normal vesting date will apply, unless the Committee exercises its discretion to allow an award to vest on the date the participant leaves employment or any later date it chooses. If a participant dies, any outstanding awards will vest on the date of death in full.

Pension and benefits

Generally pension and benefit provisions will continue to apply until the termination date. Where appropriate, other benefits may be receivable, such as (but not limited to) payments in lieu of accrued holiday, legal fees or tax advice costs in relation to the termination, settlement of any potential legal claims and repatriation.

Remuneration continued

DIRECTORS' REMUNERATION REPORT

Payments for departing Executive Directors continued

Pay and conditions throughout the Group

The pay and conditions of employees are considered by the Committee in setting policy for the Executive Directors and senior management.

The Committee is kept regularly informed on the pay and benefits provided to employees and base salary increase data from the annual salary review for the wider employee population general staff is considered when reviewing Executive Directors' salaries and those of senior management. The Committee did not consult with employees when setting the Policy.

Remuneration Policy table for Non-Executive Directors

Purpose and link to strategy	Operation	Maximum opportunity	Performance measures
<p>Fees</p> <p>The Company offers competitive fee arrangements to attract and retain high calibre and experienced individuals to serve on the Board.</p>	<p>Non-Executive Directors receive an annual base fee. They may receive further fees for additional responsibilities such as being the Senior Independent Director or chairing a Board Committee and also for membership of a Board Committee. Fees are subject to review taking into account time commitment, responsibilities and market practice. Non-Executive Directors are entitled to be reimbursed for reasonable expenses incurred during the performance of their duties, including any tax due on these benefits.</p>	<p>Total fees paid will be within the limit stated in the Articles of Association.</p>	<p>None.</p>
<p>Benefits.</p>	<p>Non-Executive Directors do not participate in incentive schemes or receive a pension provision. The Company reimburses travel expenditure and provides travel insurance when on Company business and provides professional advice in respect of Company business. Generally there are no other benefits but the Company may offer other benefits reflecting the requirements of the role, or changing market.</p>	<p>Not applicable.</p>	<p>Not applicable.</p>

Annual report on remuneration

This section of the Directors' remuneration report provides details of:

- > how Directors were paid for the year ended 31 December 2023; and
- > how we propose to implement our Policy for 2024.

This section of the report will be subject to an advisory vote at the 2024 AGM.

Remuneration paid to Executive Directors in respect of 2023

Single figure of remuneration for the 2023 financial year (audited)

The tables on the following page set out the total remuneration to Executive Directors for the years ended 31 December 2023 and 31 December 2022.

31 December 2023

Director	Salary and fees	Benefits ¹	Pension/cash in lieu of pension ²	Bonus	LTIP award	Total remuneration	Total fixed remuneration	Total variable remuneration
John Lofton Holt	£450,000	—	—	—	—	£450,000	£450,000	—
Tony Pialis	£450,000	£3,148 ³	—	—	—	£453,148	£453,148	—
Daniel Aharoni ⁴	£139,328	£3,068	£14,150	—	—	£156,546	£156,546	—
Sehat Sutardja	£85,000	—	—	—	—	£85,000	£85,000	—

- Benefits represent the taxable value of benefits paid and comprise private family health insurance.
- Pension contribution: Only Daniel Aharoni participated in the Company pension scheme and the employer contribution made for him was 10% of salary, aligned to the contribution level for the wider workforce.
- The increase in benefit costs is directly correlated to the changes in benefits made for all employees in this region.
- Daniel Aharoni stepped down as CFO and an Executive Director of the Company on 19 May 2023.

31 December 2022

Director	Salary and fees	Benefits ¹	Pension/cash in lieu of pension ²	Bonus ³	LTIP award	Total remuneration	Total fixed remuneration	Total variable remuneration
John Lofton Holt	£450,000	£12,689	—	—	—	£462,689	£462,689	—
Tony Pialis	£450,000	£2,600	—	—	—	£452,600	£452,600	—
Daniel Aharoni	£365,000	£4,129	£36,500	£246,375	—	£652,004	£405,629	£246,375
Sehat Sutardja	£85,000	—	—	—	—	£85,000	£85,000	—

- Benefits represent the taxable value of benefits paid and comprise private family health insurance. John Lofton Holt self insures and the Company reimburses him.
- Pension contribution: Only Daniel Aharoni participated in the Company pension scheme and the employer contribution made for him was 10% of salary, aligned to the contribution level for the wider workforce.
- In respect of the annual bonus for the Chief Financial Officer, the amount is based on 75% of his annual base salary of £365,000 (subject to performance targets met), as this reflects work undertaken in his capacity as an Executive Director and employee of the Company, post-Admission. As per the Remuneration Policy, one-third of the bonus payment will be deferred into shares for a period of two years.

Director changes during the year

As referenced in the Remuneration Committee Chair's letter, it was announced on 4 May 2023 that Daniel Aharoni would step down as CFO and an Executive Director of the Company following the publication of the audited results of the Company for FY 2022 and he did so on 19 May 2023.

In accordance with the Directors' Remuneration Policy, Daniel received monthly payments that are not included in the single figure noted on the previous page. These monthly payments of base salary are for his twelve-month notice period, and one off payments for pay in lieu of accrued but untaken holiday. He was not eligible for a bonus or long-term incentive award for the 2023 financial year. The details of the payments can be seen in table above.

Outstanding deferred bonuses in respect of 2021 and 2022 will continue to be payable on the normal schedule in accordance with their terms. His outstanding long-term incentive award lapsed in full.

His unvested restricted shares acquired prior to IPO have and will continue to vest each month until December 2024 in accordance with their terms.

Daniel will be subject to post-employment shareholding requirements as set out in the Director's Remuneration Policy.

Christian Bowsher, who served as interim CFO until 30 October 2023, and Rahul Mathur, who was appointed as CFO from that date, are not Executive Directors of the Company and are therefore not directly subject to the Remuneration Policy. Given this, the fact that the Executive Chair and Chief Executive Officer waived participation in the annual bonus and LTIP for 2023, and that Sehat Sutardja is not entitled to participate in any bonus or variable compensation arrangement, no Executive Directors participated in incentive arrangements for the year. There are therefore no details of incentive outcomes for the year to be disclosed.

Remuneration continued

DIRECTORS' REMUNERATION REPORT

Deferred shares plan

Conditional share awards were granted under the Bonus Deferral Award plan to Daniel Aharoni for the deferred element of his FY 2021 and FY 2022 annual bonuses.

Director	Date of grant	Face value of deferred award on grant date (US\$)	Price per share (US\$)	Number of shares subject to the deferred award
Daniel Aharoni	8 June 2022	115,858	2.24	51,741
Daniel Aharoni	19 May 2023	103,559.63	1.261	82,125

The long-term incentive award granted to Daniel Aharoni on 8 June 2022 over 424,275 shares lapsed in full on the termination date and no compensation was paid in respect of such lapsing.

Non-Executive Directors' single figure of remuneration (audited)

The remuneration of the Non-Executive Directors for 2023 is set out below.

Non-Executive Directors	Fees 2023	Benefits 2023	Total 2023
Jan Frykhammar	£119,417	—	£119,417
Michelle Senecal de Fonseca	£87,833	—	£87,833
Rosalind Singleton	£65,000	—	£65,000
Victoria Hull	£90,000	—	£90,000
Susan Buttsworth	£75,000	—	£75,000
Paul Boudre	£75,000	—	£75,000
David Reeder ¹	£28,333	—	£28,333
Total	£540,583	—	£540,583

1. David Reeder was appointed to the Board in September 2023.

No changes to fees are being proposed for 2024, except where additional appointments have been undertaken.

Details of Directors Service Contracts and letters of Appointment

Detail of the service, employment contracts and letters of appointment in place as at 31 December 2023 for Directors are as follows:

Name	Date of appointment	date of current service contract or letter of appointment	unexpired term at 31 December 2023
John Lofton Holt	11 January 2021	22 April 2021	Executive Directors are subject to a 12-month notice period, with the exception of Sehat Sutardja, whose contractual notice period is one month.
Tony Pialis	16 April 2021	22 April 2021	
Sehat Sutardja	16 April 2021	22 April 2021	
Jan Frykhammar	16 April 2021	22 April 2021	Letters of appointment for the Non-Executive Directors do not contain fixed-term periods; however, they are appointed in the expectation that they will serve two three-year terms subject to satisfactory performance and re-election at AGMs.
Victoria Hull	16 April 2021	22 April 2021	
Susan Buttsworth	16 April 2021	22 April 2021	
Michelle Senecal de Fonseca	16 April 2021	22 April 2021	
Paul Boudre	16 April 2021	22 April 2021	
David Reeder	1 September 2023	31 August 2023	
Rosalind Singleton	16 April 2021	22 April 2021	

% Change in pay 2022-2023

	Salary Change in 2022 (%)	Benefits Change in 2022 (%)	Bonuses Change in 2022 (%)	Salary Change in 2023 (%)	Benefits Change in 2023 (%)	Bonuses Change in 2023 (%)
Directors						
John Lofton Holt ¹	61%	100%	0%	0%	(100)%	0%
Tony Pialis ¹	60%	127%	0%	0%	21%	0%
Daniel Aharoni ²	57%	61%	(10)%	5.6%	(26)%	(100)%
Sehat Sutardja	59%	0%	0%	0%	0%	0%
Non-Executive Directors¹						
Jan Frykhammar	16%	0%	0%	0%	0%	0%
Michelle Senecal de Fonseca	88%	0%	0%	0%	0%	0%
Rosalind Singleton	61%	0%	0%	0%	0%	0%
Victoria Hull	61%	0%	0%	0%	0%	0%
Susan Buttsworth	41%	0%	0%	0%	0%	0%
Paul Boudre	61%	0%	0%	0%	0%	0%
David Reeder ³	N/A	N/A	N/A	N/A	N/A	N/A
Employees⁴	4%	40%	59%	10%	613%	(100)%

- The increase in benefits for Tony Pialis is directly correlated to the changes in benefits made for all employees in this region. Daniel Aharoni only received benefits part of the year, whilst John Lofton Holt received no benefits.
- Daniel Aharoni stepped down as CFO and an Executive Director of the Company on 19 May 2023.
- David Reeder was appointed to the Board in September 2023.
- The increase in employee salaries and bonuses has been calculated by taking the figures per employee in 2022, and comparing with the figures in 2023 (for those still in employment).

Payments to past Directors (audited)

There were no payments made to past Directors.

Payments for loss of office (audited)

The payments for loss of office for Daniel Aharoni are described.

Director	Salary	Benefits	accrued holiday not taken	Bonus	Pension	Total Payment
Daniel Aharoni	£225,723	—	£20,355	—		£246,078

Remuneration continued

DIRECTORS' REMUNERATION REPORT

% Change in pay 2022-2023 continued

Directors' interests in the shares of the Company (audited)

A summary of interests in shares and scheme interests of the Directors who served during the year and their connected persons is given below, as at 31 December 2023.

Executive Directors	Total number of interests in shares (31 December 2023)	Vested without performance conditions	Unvested with performance conditions	Unvested without performance conditions	Shares held as % of salary ²	Total number of interests in shares (31 March 2024)
John Lofton Holt ¹	26,624,585	—	—	—	7,205%	26,624,585
Tony Pialis	95,333,160	—	—	—	25,798%	95,333,160
Daniel Aharoni	2,600,000	933,333	—	989,422	712%	2,450,000
Sehat Sutardja	96,275,358	—	—	—	137,926%	96,275,358
Total	220,833,103	933,333	—	989,422		220,683,103

1. As disclosed in the IPO Prospectus, John Lofton Holt has an option to acquire up to 51,531,420 shares from other major shareholders.

2. Shares held as % of salary based upon Alphawave IP one-month volume-weighted average share price of £1.22 as at 31 December 2023.

Unvested without performance conditions contain unvested IPO shares, plus two bonus grants (see page 116). Daniel Aharoni was awarded share options in November 2020, which were exercised and exchanged for 2.8 million restricted shares prior to the IPO, vesting in 36 equal instalments on a monthly basis from December 2021. Other Executive Director shareholdings are beneficially owned. The Directors held no options granted by the Company during the year.

Non-Executive Directors	Total number of interests in shares (31 December 2023)	Total number of interests in shares (31 March 2024)
Jan Frykhammar	48,780	48,780
Michelle Senecal de Fonseca	3,619	44,316
Rosalind Singleton	52,420	52,420
Victoria Hull	102,821	102,821
Susan Buttsworth	48,780	48,780
Paul Boudre	48,780	48,780
David Reeder	—	—
Total	305,200	345,897

Alignment to shareholder interests

Current levels of ownership by the Executive Directors, and the date by which the goal should be achieved, are shown on the next page.

Based on a one-month volume-weighted average share price of £1.22 as at 31 December 2023, John Lofton Holt, Tony Pialis and Sehat Sutardja far exceed their shareholding requirement (% of salary). By virtue of being founders and significant shareholders in the Company, they are inherently aligned to the experience of other shareholders.

Director	Requirement as a % of salary	Current % of salary held	Number of shares owned	% of issued share capital ¹	Date of requirement to be achieved
John Lofton Holt	200%	7,205%	26,624,585	3.72%	n/a
Tony Pialis	200%	25,798%	95,333,160	13.32%	n/a
Sehat Sutardja	200%	137,926%	96,275,358	13.46%	n/a

1. Note: % of issued share capital based on issued shares as at 31 December 2023.

TSR performance chart (2024)



Single figure of remuneration for the CEO	2021	2022	2023
President & Chief Executive Officer – Tony Pialis	£332,758	£452,600	£453,148
Annual bonus payout (% of maximum)	n/a	n/a	n/a
LTIP payout (% of maximum)	n/a	n/a	n/a

The graph above shows the value, as at 31 December 2023, of £100 invested at the IPO date (13 May 2021) in Alphawave IP compared with the value of £100 invested in the comparative indices. We have compared against the FTSE 250 and FTSE All-World Technology indices as these are reflective of our UK listing and our sector, respectively, and are also the comparisons used for the TSR conditions under the LTIP.

Relative importance of spend on pay

The table below shows the total expenditure on employee remuneration compared to distributions to shareholders in 2023 and the prior year.

	2022	2023
Employee remuneration	US\$50.6m	US\$90.8m
Distributions to shareholders	n/a ¹	n/a¹

1. Our policy is to reinvest any profits back into the business and we do not intend to pay dividends for the foreseeable future.

CEO pay ratio

Although we do not currently have a large enough employee population to meet the threshold under the UK regulations for CEO pay ratio figures to be robust, the Remuneration Committee is satisfied that relativities between employees and Executive Directors are appropriate. We have a highly skilled and competitively rewarded employee population and the President & Chief Executive Officer does not currently participate in incentive arrangements. As a fast-growing business, we are recruiting rapidly and expect to report CEO pay ratio figures in the annual report once the population is sufficient for this to be done on a robust basis.

Remuneration continued

DIRECTORS' REMUNERATION REPORT

Engagement with colleagues

Michelle Senecal de Fonseca continues to act as the Group's Workforce Engagement NED. Her responsibilities include understanding the concerns of the workforce, representing those views and concerns in Board meetings, and ensuring the Board takes appropriate steps to evaluate the impact of proposals and developments on the workforce and considers what steps should be taken to mitigate any adverse impact. Michelle has driven a number of workforce engagement activities as outlined in this annual report.

Application of Policy in 2024

Base salary and benefits

The table below shows the 2023 salary levels for each Executive Director and 2024 proposed. As described in the Chair's introduction letter, the Committee intends that the CEO new salary level will represent a one-time 'right-sizing' adjustment to a market competitive level and that future increases will be modest and generally no greater than increases for our wider workforce while the Company remains at the current scale.

Director	2023 Salary level	2024 Salary level	Proposed change for 2024 (%)
John Lofton Holt	£450,000	£450,000	0%
Tony Pialis	£450,000	£680,000	51%
Sehat Sutardja ¹	£85,000	£85,000	0%

1. Sehat Sutardja's base salary is reflective of a part-time working arrangement.

Benefit provision will be unchanged in 2024.

Annual bonus and long-term incentives

As described in the Chair's letter, the Committee believes that, given the development of the business since the IPO, that it is now appropriate to recast the Executive Director packages and offer market competitive remuneration including participation in annual bonus and equity incentives. The CEO will therefore participate in the annual bonus scheme in 2024, with a maximum opportunity level of 150% of base salary.

The Committee also offered the Executive Chairman the opportunity to participate in the 2024 incentive arrangements but at the present time John Lofton Holt will continue to waive such participation. Sehat Sutardja is not eligible to participate.

The payout of STIP will be subject to the achievement of stretching performance targets, as follows:

Measure	Weighting
Revenue	60%
Adjusted EBITDA	20%
Operating Cash Flow	20%

Revenue and Adjusted EBITDA have been selected as the performance measures as they are two strategically critical financial measures for the Group. Operating Cash Flow was included as a metric for 2024, both in response to feedback received from shareholders during the consultation exercise and our ongoing focus on optimising operational efficiency and enhancing liquidity alongside sustainable growth. Weighting distribution is based on the business' continued focus on generating revenue, while equally balancing profitability and operating cash flow.

The Committee considers that the targets are commercially sensitive on a forward-looking basis but commits to disclosing the full details of these, as well as performance against them on a retrospective basis in next year's remuneration report.

One-third of any bonus will be deferred into shares for a period of two years.

Measure	Weighting	Threshold	Maximum
Relative TSR vs constituents of the FTSE 250	35%	Median	Upper Quartile
Relative TSR vs constituents of the FTSE All-World Technology Index	35%	Median	Upper Quartile
Adjusted EPS growth	30%	10% CAGR	40% CAGR

These performance metrics have been selected as they align with the Group's focus on ambitious growth and profitability. The targets were set at a level the Committee believes to be appropriately stretching, taking into account both internal performance expectations and external analyst forecasts. The targets also reflect the transformation of the business from a single >90% gross margin revenue stream, to a business with three revenue streams, each having very different scales and margin profiles, which is typical of a multinational vertically integrated semiconductor company. The Committee has chosen to use TSR as an important measure of value created for our shareholders and measure against the constituents of the FTSE 250, reflecting our UK listing, and against those of the All-World Technology Index, reflecting our sector. Stretching EPS targets will reflect our focus on ambitious growth and profitability. CAGR targets approximate analyst growth targets for 2024 and reflect the transition from a standalone IP business to a vertically integrated semiconductor business.

The Committee intends to make an LTIP award to the CEO in 2024 of face value of 300% of salary. John Lofton Holt will continue to waive participation in the LTIP and Sehat Sutardja is not eligible to participate. The performance measures, weightings and targets for 2024 are outlined previously.

External advisers

Willis Towers Watson (WTW) were appointed advisers to the Company prior to IPO, to advise the Company on remuneration matters in the context of UK listed company best practice corporate governance expectations and regulatory requirements. WTW now provide independent advice to the Committee on all aspects of executive remuneration and attend Remuneration Committee meetings. The Committee reviews the advice, challenges conclusions and assesses responses from its advisers to ensure objectivity and independence.

WTW is a founder member of the Remuneration Consultants Group and, as such, voluntarily operates under the Remuneration Consultants Group Code of Conduct in relation to executive remuneration consulting in the UK. This is based upon principles of transparency, integrity, objectivity, competence, due care and confidentiality by executive remuneration consultants. WTW has confirmed that it adheres to that Code of Conduct for all remuneration services provided to Alphawave Semi and therefore the Committee is satisfied that it is independent and objective. The Remuneration Consultants Group Code of Conduct is available at www.remunerationconsultantsgroup.com. The fees payable to WTW for services to the Committee during the year were £43,381.

Shareholder voting

The table below sets out the actual voting in respect of the resolution regarding the Remuneration Report at the 2023 and 2022 annual general meeting.

Resolution	For	Against	Total	Withheld
To approve the Directors' remuneration report 2023	592,461,946 (99.72%)	1,650,592 (0.28%)	594,112,538	28,471
To approve the Directors' remuneration report 2022	635,783,146 (99.98%)	115,061 (0.02%)	635,898,207	100,058

Victoria Hull

Chair of the Remuneration Committee

23 April 2024

This Directors' remuneration report has been prepared in accordance with the requirements of Schedule 8 to the Large and Medium-sized Companies and Groups (Accounts and Reports) Regulations 2008 (as amended). The report also meets the relevant requirements of the Listing Rules of the Financial Conduct Authority, and describes how the Board has complied with the principles and provisions of the UK Corporate Governance Code relating to remuneration matters. Remuneration tables are subject to audit in accordance with the relevant statutory requirements.

Directors' report

The Directors present their report, together with the audited financial statements, for the period ended 31 December 2023.

The Directors' report, together with the strategic report, represent the management report for the purposes of compliance with the Disclosure Guidance and Transparency Rules 4.1.8R.

In accordance with section 414C(11) of the Companies Act 2006 and the Companies (Miscellaneous Reporting) Regulations 2018, the Board has included certain disclosures in the strategic report set out below:

Disclosure	Page
Future business developments	Market opportunities, pages 18 and 19
Risk management	Principal risks and uncertainties, pages 74 to 77
Going concern and viability statement	Viability statement, page 72
Disabled employees	ESG, Our People section, pages 38 to 43
Business relationship with suppliers, customers and other stakeholder engagement	Stakeholder engagement, page 28
Climate-related financial disclosures, greenhouse gas consumption, energy consumption and energy efficiency action	ESG, pages 44 to 48 and appendix Climate-related disclosures
Workforce engagement	ESG, Our People section, page 43

Compliance with the UK Corporate Governance Code 2018

Alphawave IP Group plc was admitted to the standard listing segment of the FCA's Official List and to trading on the London Stock Exchange's main market on 18 May 2021 ('Admission'). Save as set out in the corporate governance statement, the Board voluntarily complies with the requirements of the UK Corporate Governance Code (the 'Code'). Prior to 18 May 2021, the Group was not required to comply with the principles and provisions of the Code. Since Admission, the Group has complied with all provisions of the Code, except as noted below.

The annual evaluation of the operation and effectiveness of the Board, its Committees and individual Directors was undertaken in 2023. The Board intends to comply with the Code guidance that an externally facilitated evaluation should take place at least every three years.

Whilst the Group did not have an internal audit function during the period under review, the Company has complied with the requirement in Provision 25 for the Audit Committee to consider annually whether there is a need for one. During the period under review, the Group did not have an internal audit function as it had been agreed that the Group's size and activities were such that internal assurance was achievable through other means.

The Audit Committee continue to evaluate the need for an internal audit function and recommended to the Board to keep this area under review. In addition, the annual evaluation of the Group's risk management and internal control systems (in accordance with Provision 29 of the Code) took place in 2023.

During 2023, the Audit Committee undertook the a review of the effectiveness of the external audit process (in accordance with Provision 25 of the Code). The process began soon after the publication of FY 2022 results in May 2023 and this continues.

The Executive Chair of the Company, John Lofton Holt, was not independent on Admission. Together with the other founders, John has guided the Group's growth through its early stages and the Board considers that his continued leadership will ensure that the Group is best placed to continue its current growth trajectory.

Further information on the Company's application of the principles and provisions of the Code can be found in the corporate governance report.

Corporate governance statement

The information that fulfils the requirements of the corporate governance statement for the purposes of the FCA's Disclosure Guidance and Transparency Rules can be found in the corporate governance report and in this Directors' report.

Disclosure of information to auditors

The Directors confirm that, so far as they are each aware, there is no relevant audit information of which the Company's auditors are unaware. Each Director has taken all the steps that they ought to have taken as a Director to make themselves aware of any relevant audit information and to establish that the Company's auditors are aware of that information.

Insurance and indemnities

The Group has maintained Directors' and Officers' liability insurance cover throughout the reporting period. The Directors are able to obtain legal or other relevant advice at the expense of the Company in their capacity as Directors. The Company has also provided a qualifying third-party indemnity to each Director as permitted by section 234 of the Companies Act 2006 and by the Articles, which remain in force at the date of this report.

The Directors' and Officers' liability insurance cover also extends to the directors of Group subsidiaries.

Political and charitable donations

The Group did not make any political or charitable donations or incur political expenditure during the reporting period.

Subsidiaries and branches

The Company acts as a holding company for the Group of subsidiaries. The Group's subsidiaries are set out on page 198 of the financial statements.

Share capital

Details of the Company's share capital, together with details of the movements in the share capital during the year, are shown on pages 178 and 197 of the accounts. The Company has one class of ordinary shares which carry no right to fixed income. Each share carries the right to one vote at a general meeting of the Company. Restrictions on share transfers are set out in the Company's Articles of Association. The Company is not aware of any agreements between shareholders that restrict the transfer of shares or voting rights attached to the shares. As approved by the IPO Committee of the Board on 12 May 2021 and the High Court of Justice Business and Property Court of England and Wales on 16 November 2021, the nominal value of the Company's ordinary shares reduced from £1.00 to £0.01 on 17 November 2021.

Exchangeable shareholders

As set out in the Company's Prospectus, a portion of the interests of The Tony Pialis (2017) Family Trust, The Rajeevan Mahadevan (2017) Family Trust, 2641239 Ontario Inc. and certain other pre-IPO shareholders in the Company immediately prior to Admission ('exchangeable shareholders') are held through ordinary shares that were issued to Project AuroraIP Limited (JerseyCo) on 14 May 2021. These ordinary shares (referred to as underlying shares) are legally and beneficially owned by JerseyCo, except that (i) the exchangeable shareholders will have a right to direct the voting rights attaching to such shares, and (ii) JerseyCo will irrevocably waive its rights to distributions declared on such shares for as long as it holds them. Each of the exchangeable shareholders have also been issued with exchangeable shares on a one-for-one basis for each ordinary share that will be held by JerseyCo. The exchangeable shares can be redeemed at any time for a cash price that can be satisfied by the transfer to such exchangeable shareholder of an underlying share. Each exchangeable share also carries a right to receive, upon redemption, a cash payment that is equal to all dividends and distributions declared on an ordinary share from time to time. The total number of underlying shares that are issued to JerseyCo as of 31 December 2023 was 264,896,259 representing 37.02% of the Company's issued ordinary share capital.

Directors' report continued

Substantial shareholdings

As at 31 December 2023 and at 31 March 2024, the following persons were directly or indirectly interested (within the meaning of the Companies Act 2006) in 3% or more of the Company's issued share capital or voting rights. Further, as at the date of this report, the following contains information received, in accordance with Rule 5 of the FCA's Disclosure Guidance and Transparency Rules, from holders of notifiable interest in the Company's issued share capital.

The information provided below is correct at the date of notification.

Holder	As at 31 December 2023		As at 31 March 2024	
	Number of shares	Voting rights (%)	Number of shares	Voting rights (%)
The Tony Pialis (2017) Family Trust ¹	95,333,160	13.32%	95,333,160	13.07%
The Rajeevan Mahadevan (2017) Family Trust ²	95,333,160	13.32%	95,333,160	13.07%
2641239 Ontario Inc. ³	95,333,140	13.32%	95,333,140	13.07%
Sutardja Family LLC ⁴	96,275,358	13.46%	96,275,358	13.20%
Fidelity International	49,698,765	6.95%	49,658,400	6.81%
Artisan Partners	28,704,807	4.01%	28,154,550	3.86%
July Twelve Capital Limited ⁵	26,624,584	3.72%	26,624,584	3.65%

1. This includes interests held by Pitech Investments Inc., a discretionary beneficiary of The Tony Pialis (2017) Family Trust and a person closely associated with Tony Pialis (within the meaning of the Market Abuse Regulation). Tony Pialis is the trustee of The Tony Pialis (2017) Family Trust and he is also a discretionary beneficiary.

2. This includes interests held by Jeevan Capital Inc., a discretionary beneficiary of The Rajeevan Mahadevan (2017) Family Trust and a person closely associated with Rajeevan Mahadevan (within the meaning of the Market Abuse Regulation). Rajeevan Mahadevan is the trustee of The Rajeevan Mahadevan (2017) Family Trust and (through a wholly owned company) he is also a discretionary beneficiary.

3. The shares of 2641239 Ontario Inc. are wholly owned by The Jonathan Rogers (2018) Family Trust. Jonathan Rogers is the trustee of The Jonathan Rogers (2018) Family Trust.

4. Sehat Sutardja holds 10% of the shares in Sutardja Family LLC. The remaining shares are held by his family members.

5. July Twelve Capital Limited is a person closely associated with John Lofton Holt (within the meaning of the Market Abuse Regulation). In addition to the interests listed in this table, July Twelve Capital Limited also has an option to purchase up to 51,531,420 Exchangeable Shares in aggregate from The Tony Pialis (2017) Family Trust, 2641239 Ontario Inc. and The Rajeevan Mahadevan (2017) Family Trust.

Information provided to the Company pursuant to Rule 5 of the FCA's Disclosure Guidance and Transparency Rules is published on a Regulatory Information Service.

Dividend policy

In the near term, the Group currently intends to retain any future earnings to finance the operation and expansion of its business, and to drive continued growth. The Group will review its dividend policy on an ongoing basis, with respect to the cash position of the Group, the growth of the Group's businesses, and the macroeconomic environment, but does not expect to declare or pay any dividends for the foreseeable future.

Articles of Association and powers of the Directors

The Company's Articles of Association (the 'Articles') contain the rules relating to the powers of the Company's Directors and their appointment and replacement mechanisms. The Articles may only be amended by special resolution at a general meeting of the shareholders. Subject to the Group's Articles and relevant regulatory measures, including the Companies Act 2006, the day-to-day business of the Group is managed by the Board who may exercise all the powers of the Company.

Authority to purchase own shares

At a general meeting held on 22 June 2023 shareholders passed a special resolution in accordance with the Companies Act 2006 to authorise the Company to purchase in the market a maximum of 70,228,236 ordinary shares, representing 10% of the Company's issued ordinary share capital (excluding treasury shares) as at the Last Practicable Date prior to the publication of the 2023 Notice of AGM. No shares have been purchased under this authority. The authority will expire at the forthcoming Annual General Meeting. The Directors are seeking renewal of the authority, in accordance with relevant institutional guidelines.

Significant agreements and change of control

The Group has a number of contractual arrangements which it considers essential to the business of the Group. A change of control of the Company may cause some agreements to which the Group is a party to alter or terminate.

The Company has a Long-Term Incentive Plan in place, which contains provisions relating to a change of control.

Compensation for loss of office

There are no agreements between the Company and its Directors or employees providing for compensation for loss of office or employment that occurs because of a takeover bid, except that provisions of the Company's share plans may allow options and awards granted to Directors and employees to vest on a takeover.

Additional disclosures

The following information can be found elsewhere in this document, as indicated in the table below, and is incorporated into this report by reference.

Disclosure	Page
Directors' interests	Directors' remuneration report, pages 100 to 121
Directors of the Company	Board of Directors, pages 78 to 81
Dividends	Financial review, pages 71, 119 and 124
Financial instruments	Financial statements, pages 170 to 172
Important events since the financial year end	Events after the balance sheet date, page 185
Statement of Directors' responsibilities	Directors' responsibilities, page 126

Appointment of auditor

On the recommendation of the Audit Committee, resolutions will be proposed at the 2024 AGM to re-appoint KPMG LLP as auditor of the Company and to authorise the Audit Committee to set the auditor's remuneration.

Annual General Meeting

The Company's AGM will be held on 25 June 2024. Details of the resolutions to be proposed at the AGM are set out in the Notice of Meeting, which is provided to all shareholders.

The Directors' report, which has been prepared in accordance with the requirements of the Companies Act 2006, has been approved by the Board and signed on its behalf by:

Tony Pialis

Chief Executive Officer

23 April 2024

Statement of Directors' responsibilities

IN RESPECT OF THE ANNUAL REPORT AND FINANCIAL STATEMENTS

The Directors are responsible for preparing the annual report and the Group and Company financial statements in accordance with applicable law and regulations.

Company law requires the Directors to prepare Group and parent Company financial statements for each financial year. Under that law they are required to prepare the Group financial statements in accordance with UK-adopted international accounting standards and applicable law and have elected to prepare the parent Company financial statements in accordance with UK accounting standards and applicable law, including FRS 101 Reduced Disclosure Framework.

Under company law, the Directors must not approve the financial statements unless they are satisfied that they give a true and fair view of the state of affairs of the Group and Company and of the Group's profit or loss for that period. In preparing each of the Group and Company financial statements, the Directors are required to:

- > select suitable accounting policies and then apply them consistently;
- > make judgements and estimates that are reasonable, relevant and reliable;
- > for the Group financial statements, state whether they have been prepared in accordance with UK-adopted international accounting standards;
- > for the parent Company financial statements, state whether applicable UK accounting standards have been followed, subject to any material departures disclosed and explained in the parent Company financial statements;
- > assess the Group and Company's ability to continue as a going concern, disclosing, as applicable, matters related to going concern; and
- > use the going concern basis of accounting unless they either intend to liquidate the Group or the Company or to cease operations, or have no realistic alternative but to do so.

The Directors are responsible for keeping adequate accounting records that are sufficient to show and explain the Group's transactions and disclose with reasonable accuracy at any time the financial position of the Group and enable them to ensure that its financial statements comply with the Companies Act 2006. They are responsible for such internal control as they determine is necessary to enable the preparation of financial statements that are free from material misstatement, whether due to fraud or error, and have general responsibility for taking such steps as are reasonably open to them to safeguard the assets of the Group and to prevent and detect fraud and other irregularities.

Under applicable law and regulations, the Directors are also responsible for preparing a strategic report, Directors' report, Directors' remuneration report and corporate governance statement that complies with that law and those regulations.

In accordance with Disclosure Guidance and Transparency Rule (DTR) 4.1.16R, the financial statements will form part of the annual financial report prepared under DTR 4.1.17R and 4.1.18R. The auditor's report on these financial statements provides no assurance over whether the annual financial report has been prepared in accordance with those requirements.

The Directors are responsible for the maintenance and integrity of the corporate and financial information included on the Group's website. Legislation in the UK governing the preparation and dissemination of financial statements may differ from legislation in other jurisdictions.

Responsibility statement of the Directors in respect of the annual financial report

We confirm that to the best of our knowledge:

- > the financial statements, prepared in accordance with the applicable set of accounting standards, give a true and fair view of the assets, liabilities, financial position and profit or loss of the Company and the undertakings included in the consolidation taken as a whole;
- > the management report includes a fair review of the development and performance of the business and the position of the issuer and the undertakings included in the consolidation taken as a whole, together with a description of the principal risks and uncertainties that they face; and
- > we consider the annual report and accounts, taken as a whole, is fair, balanced and understandable and provides the information necessary for shareholders to assess the Group's position and performance, business model and strategy.

Tony Pialis

Chief Executive Officer

23 April 2024

Alphawave IP Group plc

6th Floor
65 Gresham Street
London
EC2V 7NQ
United Kingdom



Independent auditor's report

to the members of Alphawave IP Group plc

1. Our opinion is unmodified

We have audited the financial statements of Alphawave IP Group plc ("the Company") for the year ended 31 December 2023 which comprise the Consolidated statement of comprehensive income, Consolidated statement of financial position, Company statement of financial position, Consolidated statement of cash flows, Consolidated statement of changes in equity and Company statement of changes in equity, and the related notes, including the accounting policies in note 2.

In our opinion:

- the financial statements give a true and fair view of the state of the Group's and of the parent Company's affairs as at 31 December 2023 and of the Group's loss for the year then ended;
- the Group financial statements have been properly prepared in accordance with UK-adopted international accounting standards;
- the parent Company financial statements have been properly prepared in accordance with UK accounting standards, including FRS 101 Reduced Disclosure Framework; and
- the financial statements have been prepared in accordance with the requirements of the Companies Act 2006.

Basis for opinion

We conducted our audit in accordance with International Standards on Auditing (UK) ("ISAs (UK)") and applicable law. Our responsibilities are described below. We believe that the audit evidence we have obtained is a sufficient and appropriate basis for our opinion. Our audit opinion is consistent with our report to the audit committee.

We were first appointed as auditor by the directors on 16 April 2021. The period of total uninterrupted engagement is for the three financial years ended 31 December 2023. We have fulfilled our ethical responsibilities under, and we remain independent of the Group in accordance with, UK ethical requirements including the FRC Ethical Standard as applied to listed public interest entities. No non-audit services prohibited by that standard were provided.

Overview

Materiality: \$3.3m (2022: \$1.8m)
group financial statements as a whole 1.0% (2022: 1.0%) of Revenue

Coverage 99.9% (2022: 97.0%) of revenue

Key audit matters vs 2022

Recurring risks Revenue recognition

New: Development costs capitalisation

Recoverability of parent company's investments in subsidiaries

Event driven **New:** Going concern

2. Key audit matters: our assessment of risks of material misstatement

Key audit matters are those matters that, in our professional judgement, were of most significance in the audit of the financial statements and include the most significant assessed risks of material misstatement (whether or not due to fraud) identified by us, including those which had the greatest effect on: the overall audit strategy; the allocation of resources in the audit; and directing the efforts of the engagement team. We summarise below the key audit matters, in decreasing order of audit significance, in arriving at our audit opinion above, together with our key audit procedures to address those matters and, as required for public interest entities, our results from those procedures. These matters were addressed, and our results are based on procedures undertaken, in the context of, and solely for the purpose of, our audit of the financial statements as a whole, and in forming our opinion thereon, and consequently are incidental to that opinion, and we do not provide a separate opinion on these matters.

	The risk	Our response
<p>Revenue recognition</p> <p>(\$167.6 million; 2022: \$137.6 million)</p> <p>(IP and NRE, IP and NRE – Reseller, IP and NRE –JV)</p> <p><i>Refer to page 143 & 150 (accounting policy) and page 152 (financial disclosures)</i></p>	<p>Accounting application:</p> <p>The Group enters into contracts with customers that include various combinations of products. Each contract is bespoke with varying options and terms and the application of accounting standards to these terms is complex and involves judgement.</p> <p>There is a risk that the individual performance obligations are not correctly identified. Revenue includes subjective measurements requiring management to exercise significant judgement with respect to estimated total hours to complete the contract. The effect of these matters is that, as part of our risk assessment, we determined that revenue recognition has a high degree of estimation uncertainty, with a potential range of reasonable outcomes greater than our materiality for the financial statements as a whole.</p> <p>The financial statements (note 4) disclose the sensitivity estimated by the Group.</p>	<p>We performed the detailed tests below rather than seeking to rely on any of the Group's controls because our knowledge of the design of these controls indicated that we would not be able to obtain the required evidence to support reliance on controls.</p> <p>Our procedures included:</p> <ul style="list-style-type: none"> — Test of details: We assessed whether the Group's revenue recognition policy is in line with the requirements of the accounting standards, which includes consideration of alternative accounting treatment; — We assessed the Group's determination of distinct performance obligations contained within their contracts by selecting a sample of the contracts and considering the terms together with the requirements of the accounting standards including whether any alternative treatment existed; — We agreed samples of invoices raised in the year in respect of revenue and to cash receipts for those paid; — We considered the appropriateness of the allocation of contract revenue to the identified performance obligations by comparing the approach taken to the requirements of the accounting standards; — Independent recalculation : We recalculated the stage of completion based on the costs incurred as at year end and the Group's estimate of future costs to complete contracts, which included assessment of the historical accuracy of the Group's estimates, to assess the appropriate amount of revenue to recognise and compare this to the amounts recorded by the Group; — Assessing transparency: We considered the adequacy of the Group's disclosures in respect of revenue recognition and the judgements and estimates made in determining the revenue recognised. <p>Our results</p> <ul style="list-style-type: none"> — We found the revenue recognition to be acceptable (2022: acceptable).

2. Key audit matters: our assessment of risks of material misstatement (cont.)

	The risk	Our response
<p>Going Concern</p> <p><i>see note 1 to the group financial statements</i></p>	<p>Disclosure quality</p> <p>The financial statements explain how the Board has formed a judgement that it is appropriate to adopt the going concern basis of preparation for the Group and parent Company.</p> <p>That judgement is based on an evaluation of the inherent risks to the Group's and Company's business model and how those risks might affect the Group's and Company's financial resources or ability to continue operations over a period of at least a year from the date of approval of the financial statements.</p> <p>The risks most likely to affect the Group's and Company's available financial resources adversely and metrics relevant to debt covenants over this period were:</p> <ul style="list-style-type: none"> • Maintenance of sales growth in the face of rapidly changing technology in the industry in which the group operates; • Future increases in interest rates. <p>There are also less predictable but realistic second order impacts, such as the impact of global political developments.</p> <p>The risk for our audit was whether or not those risks were such that they amounted to a material uncertainty that may have cast significant doubt about the ability of the Company and the Group to continue as a going concern. Had they been such, then that fact would have been required to have been disclosed.</p>	<p>We considered whether these risks could plausibly affect the liquidity or covenant compliance in the going concern period by assessing the directors' sensitivities over the level of available financial resources and covenant thresholds indicated by the Group's financial forecasts taking account of severe, but plausible, adverse effects that could arise from these risks individually and collectively.</p> <p>Our procedures also included:</p> <ul style="list-style-type: none"> — Funding assessment: We assessed the forecast cash position, available committed facilities and the directors' assessment of the Group's ability to comply with its covenants for a period of at least 12 months from the date of approval of the financial statements ('forecast period'), to understand the financial resources available to the Group during the forecast period; — Historical comparisons: We assessed the ability of the Group to forecast accurately by comparing the most recent financial year's performance against budget and challenged the assumptions over the going concern period based on historical performance. We also compared the actual performance in recent years versus base case and downside case to challenge the quantum of risks applied in the forecasts; — Key dependency assessment: We evaluated how the cash flow model captures events and conditions that may cast significant doubt on the ability to continue as a going concern and evaluated whether key assumptions of group revenue forecast and a potential increase in interest rates were within a reasonable range; — Sensitivity analysis: We assessed the downside sensitivity to check whether this represented a severe but plausible scenario based on our knowledge of the business, the sector and the most recent results of the Group; — Evaluating directors' intent: We evaluated the achievability of the actions the directors consider they would take to improve the position should the risks materialise, taking into account the extent to which the directors can control the timing and outcome of these; — Assessing transparency: We considered whether the going concern disclosure in note 1 to the financial statements gives a full and accurate description of the directors' assessment of going concern, including the identified risks and, dependencies, and related sensitivities. <p>Our results</p> <ul style="list-style-type: none"> — We found the going concern disclosure in note 1 to be acceptable.

2. Key audit matters: our assessment of risks of material misstatement (cont.)

	The risk	Our response
<p>Development costs capitalisation (\$54.5 million; 2022: \$7.2 million)</p> <p><i>Refer to page 146 & 150 (accounting policy) and page 162 (financial disclosures).</i></p>	<p>This capitalised development expenditure consists primarily of staff costs where staff have worked on projects that are eligible for capitalisation under the Group's research and development accounting policy.</p> <p>There is a risk that additions to internally generated intangible assets are recorded inappropriately when:</p> <ul style="list-style-type: none"> • the expenditure is not eligible for capitalisation, • the assets are not accurately recorded, • the entity does not have the rights to the assets, or • the assets do not exist. 	<p>We performed the tests below rather than seeking to rely on any of the Group's controls because the nature of the balance is such that we would expect to obtain audit evidence primarily through the detailed procedures described.</p> <p>Our audit procedures included:</p> <ul style="list-style-type: none"> — Inquiries: we performed specific inquiries with management regarding project costs and obtained management's assessment of the criteria of capitalisation of all project costs; — Tests of detail: We assessed whether the costs of internally generated intangibles are eligible for recognition as an intangible asset; — We evaluated management's allocation of internal costs to the asset and determined whether the methodology of allocation was appropriate; — Assessing transparency: we considered the adequacy of the Group's disclosures in respect of research and development cost capitalisation and the judgements involved in determining the amount of cost to capitalise. <p>Our results</p> <ul style="list-style-type: none"> — We found the capitalisation of development costs to be acceptable.

2. Key audit matters: our assessment of risks of material misstatement (cont.)

	The risk	Our response
<p>Recoverability of parent company's investments in subsidiaries (\$346.2 million; 2022: \$280.4 million)</p> <p><i>Refer to page 193 (accounting policy) and page 196 (financial disclosures)</i></p>	<p>Low risk, high value</p> <p>The carrying amount of the Parent Company's investments in subsidiaries represents 44.8% (2022: 39.3%) of the Company's total assets. The recoverability is not at high risk of significant misstatement or subject to significant judgement. However, due to their materiality in the context of the Parent Company financial statements, this is considered to be the area that had the greatest effect on our audit of the Parent Company.</p>	<p>We performed the detailed tests below rather than seeking to rely on any of the Group's controls because our knowledge of the design of these controls indicated that we would not be able to obtain the required evidence to support reliance on controls.</p> <p>Our procedures included:</p> <ul style="list-style-type: none"> — Test of details: We compared the carrying amount of the investments in subsidiaries, with the relevant subsidiaries' draft balance sheet, to identify whether their net assets, being an approximation of the minimum recoverable amount of the related investments were in excess of their carrying amount. <p>Our results</p> <ul style="list-style-type: none"> — We found the assessment of recoverability of the Parent Company's investments in subsidiaries to be acceptable (2022: acceptable).

We continue to perform procedures over the control environment. However, there were no acquisitions during the year and we did not encounter the same degree of challenge in respect of the control environment, as such we have not assessed this as one of the most significant risks in our current year audit and, therefore, it is not separately identified in our report this year. We have not assessed any risk in current year over Valuation of acquired identifiable intangibles as there were no acquisitions during the year.

3. Our application of materiality and an overview of the scope of our audit

Materiality for the Group financial statements as a whole was set at \$3,300,000 (2022: \$1,800,000), determined with reference to a benchmark of Group revenue, of which it represents 1.0% (2022: 1.0%).

Materiality for the parent Company financial statements as a whole was set at \$2,650,000 (2022: \$1,440,000), determined with reference to a benchmark of Company total assets, of which it represents 0.3% (2022: 0.2%).

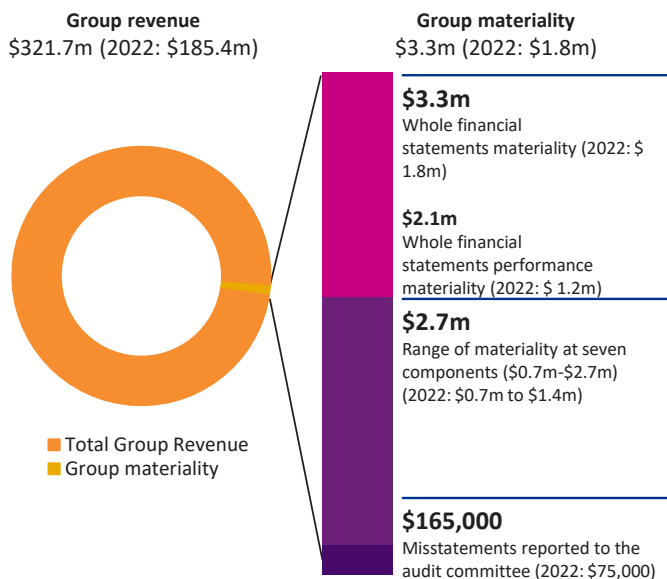
In line with our audit methodology, our procedures on individual account balances and disclosures were performed to a lower threshold, performance materiality, so as to reduce to an acceptable level the risk that individually immaterial misstatements in individual account balances add up to a material amount across the financial statements as a whole.

Performance materiality was set at 64.9% (2022: 65%) of materiality for the financial statements as a whole, which equates to \$2,140,000 (2022: \$1,170,000) for the Group and \$1,720,000 (2022: \$936,000) for the parent Company. We applied this percentage in our determination of performance materiality based on the level of identified misstatements, control deficiencies and changes in the control environment during the prior period.

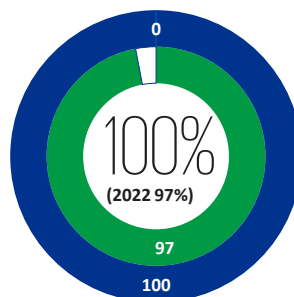
We agreed to report to the Audit Committee any corrected or uncorrected identified misstatements exceeding \$165,000 (2022: \$75,000), in addition to other identified misstatements that warranted reporting on qualitative grounds.

Of the Group's 14 (2022: 14) reporting components, we subjected 6 (2022: 6) to full scope audits for group purposes and 1 (2022: 1) to specified risk-focused audit procedures. The latter was not individually financially significant enough to require a full scope audit for group purposes, but did present specific individual risks that needed to be addressed. The components within the scope of our work accounted for the percentages illustrated opposite.

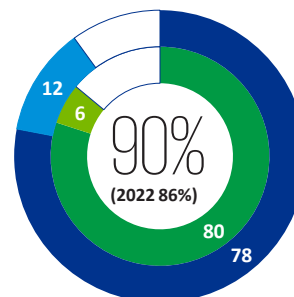
The remaining 0% (2022: 3%) of total Group revenue, 10% (2022: 14%) of Group profit before tax and 4% (2022: 1%) of total Group assets is represented by 7 (2022: 7) reporting components, none of which individually represented more than 5% (2022: 4%) of any of total Group revenue, Group profit before tax or total Group assets. For these components, we performed analysis at an aggregated group level to re-examine our assessment that there were no significant risks of material misstatement within these.



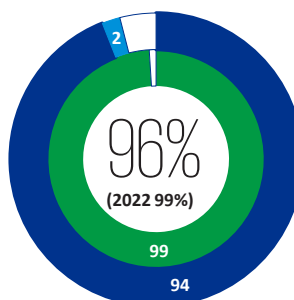
Group revenue



Group profit before tax



Group total assets



- Full scope for group audit purposes 2023
- Specified risk-focused audit procedures 2023
- Full scope for group audit purposes 2022
- Specified risk-focused audit procedures 2022
- Residual components

3. Our application of materiality and an overview of the scope of our audit (cont.)

The Group team instructed component auditors as to the significant areas to be covered, including the relevant risks detailed above and the information to be reported back. The Group team approved the component materialities, which ranged from \$2,650,000 to \$660,000 (2022: \$1,440,000 to \$720,000), having regard to the mix of size and risk profile of the Group across the components. The work on two of the seven components (2022: two of the seven components) was performed by component auditors and the rest, including the audit of the parent Company, was performed by the Group team.

The scope of the audit work performed was fully substantive as we did not rely upon the Group's internal control over financial reporting.

The Group team visited two (2022: two) component locations in Canada and the United States of America to assess the audit risk and develop strategy.

Video and telephone conference meetings were also held with the two component auditors in China and inspection of component audit teams' key work papers took place in person to evaluate the quality of execution of audits of the components. At these visits and meetings, the findings reported to the Group team were discussed in more detail, and any further work required by the Group team was then performed by the component auditor.

4. Going concern

The Directors have prepared the financial statements on the going concern basis as they do not intend to liquidate the Group or the Company or to cease their operations, and as they have concluded that the Group and the Company's financial position means that this is realistic. They have also concluded that there are no material uncertainties that could have cast significant doubt over their ability to continue as a going concern for at least a year from the date of approval of the financial statements ("the going concern period"). An explanation of how we evaluated management's assessment of going concern is set out in the related key audit matter in section 2 of this report.

Our conclusions based on this work:

- we consider that the directors' use of the going concern basis of accounting in the preparation of the financial statements is appropriate; and
- we have not identified, and concur with the directors' assessment that there is not, a material uncertainty related to events or conditions that, individually or collectively, may cast significant doubt on the Group's or Company's ability to continue as a going concern for the going concern period.

However, as we cannot predict all future events or conditions and as subsequent events may result in outcomes that are inconsistent with judgements that were reasonable at the time they were made, the above conclusions are not a guarantee that the Group or the Company will continue in operation.

5. Fraud and breaches of laws and regulations – ability to detect

Identifying and responding to risks of material misstatement due to fraud

To identify risks of material misstatement due to fraud ("fraud risks") we assessed events or conditions that could indicate an incentive or pressure to commit fraud or provide an opportunity to commit fraud. Our risk assessment procedures included:

- Enquiring of directors, the audit committee, and inspection of policy documentation as to the Group's high-level policies and procedures to prevent and detect fraud, including the Group's channel for "whistleblowing", as well as whether they have knowledge of any actual, suspected or alleged fraud;
- Reading Board and audit committee minutes;
- Considering remuneration incentive schemes; and performance targets for management, directors and sales staff.
- Using analytical procedures to identify any unusual or unexpected relationships.

We communicated identified fraud risks throughout the audit team and remained alert to any indications of fraud throughout the audit. This included communication from the Group audit team to full scope component audit teams of relevant fraud risks identified at the Group level and request to full scope component audit teams to report to the Group audit team any instances of fraud that could give rise to a material misstatement at the Group level.

As required by auditing standards, and taking into account possible pressures to meet profit targets, we perform procedures to address the risk of management override of controls and the risk of fraudulent revenue recognition, in particular:

- the risk that Group and component management may be in a position to make inappropriate accounting entries;
- the risk of bias in accounting estimates underpinning revenue recognition; and
- the risk that revenue is overstated through recording revenues in the wrong period.

Further detail in respect of revenue recognition is set out in the key audit matter disclosures in section 2 of this report.

We also identified a fraud risk related to inappropriate capitalisation of development costs in response to potential incentives to capitalise these costs.

We also performed procedures including:

- Identifying journal entries and other adjustments to test for all full scope components based on risk criteria and comparing the identified entries to supporting documentation;
- Evaluated the business purpose of significant unusual transactions; and
- Assessing whether the judgements made in making accounting estimates are indicative of a potential bias.

5. Fraud and breaches of laws and regulations – ability to detect (cont.)

Identifying and responding to risks of material misstatement related to compliance with laws and regulations

We identified areas of laws and regulations that could reasonably be expected to have a material effect on the financial statements from our general commercial and sector experience, and through discussion with the directors and other management (as required by auditing standards), and discussed with the directors and other management the policies and procedures regarding compliance with laws and regulations.

As the Group is regulated, our assessment of risks involved gaining an understanding of the control environment including the entity's procedures for complying with regulatory requirements.

We communicated identified laws and regulations throughout our team and remained alert to any indications of noncompliance throughout the audit. This included communication from the Group audit team to full-scope component audit teams of relevant laws and regulations identified at the Group level, and a request for full scope component auditors to report to the Group audit team any instances of non-compliance with laws and regulations that could give rise to a material misstatement at the Group level.

The potential effect of these laws and regulations on the financial statements varies considerably.

Firstly, the Group is subject to laws and regulations that directly affect the financial statements including financial reporting legislation (including related companies legislation), distributable profits legislation, and taxation legislation and we assessed the extent of compliance with these laws and regulations as part of our procedures on the related financial statement items.

Secondly, the Group is subject to many other laws and regulations where the consequences of non-compliance could have a material effect on amounts or disclosures in the financial statements, for instance through the imposition of fines or litigation. We identified the following areas as those most likely to have such an effect: health and safety, data protection laws, anti-bribery, employment law, export law, and certain aspects of company legislation recognising the financial and regulated nature of the Group's activities and its legal form. Auditing standards limit the required audit procedures to identify noncompliance with these laws and regulations to enquiry of the directors and other management and inspection of regulatory and legal correspondence, if any. Therefore if a breach of operational regulations is not disclosed to us or evident from relevant correspondence, an audit will not detect that breach.

Context of the ability of the audit to detect fraud or breaches of law or regulation

Owing to the inherent limitations of an audit, there is an unavoidable risk that we may not have detected some material misstatements in the financial statements, even though we have properly planned and performed our audit in accordance with auditing standards. For example, the further removed non-compliance with laws and regulations is from the events and transactions reflected in the financial statements, the less likely the inherently limited procedures required by auditing standards would identify it.

In addition, as with any audit, there remained a higher risk of non-detection of fraud, as these may involve collusion, forgery, intentional omissions, misrepresentations, or the override of internal controls. Our audit procedures are designed to detect material misstatement. We are not responsible for preventing non-compliance or fraud and cannot be expected to detect non-compliance with all laws and regulations.

6. We have nothing to report on the other information in the Annual Report

The directors are responsible for the other information presented in the Annual Report together with the financial statements. Our opinion on the financial statements does not cover the other information and, accordingly, we do not express an audit opinion or, except as explicitly stated below, any form of assurance conclusion thereon.

Our responsibility is to read the other information and, in doing so, consider whether, based on our financial statements audit work, the information therein is materially misstated or inconsistent with the financial statements or our audit knowledge. Based solely on that work we have not identified material misstatements in the other information.

Strategic report and directors' report

Based solely on our work on the other information:

- we have not identified material misstatements in the strategic report and the directors' report;
- in our opinion the information given in those reports for the financial year is consistent with the financial statements; and
- in our opinion those reports have been prepared in accordance with the Companies Act 2006.

Directors' remuneration report

In our opinion the part of the Directors' Remuneration Report to be audited has been properly prepared in accordance with the Companies Act 2006.

Corporate governance disclosures

Based solely on our work on the other information described above:

- with respect to the Corporate Governance Statement disclosures about internal control and risk management systems in relation to financial reporting processes and about share capital structures:
 - we have not identified material misstatements therein; and
 - the information therein is consistent with the financial statements; and
- in our opinion, the Corporate Governance Statement has been prepared in accordance with the relevant rules of the Disclosure Guidance and Transparency Rules of the Financial Conduct Authority.

We are also required to report to you if a corporate governance statement has not been prepared by the company. We have nothing to report in these respects.

7. We have nothing to report on the other matters on which we are required to report by exception

Under the Companies Act 2006, we are required to report to you if, in our opinion:

- adequate accounting records have not been kept by the parent Company, or returns adequate for our audit have not been received from branches not visited by us; or
- the parent Company financial statements and the part of the Directors' Remuneration Report to be audited are not in agreement with the accounting records and returns; or

- certain disclosures of directors' remuneration specified by law are not made; or
- we have not received all the information and explanations we require for our audit.

We have nothing to report in these respects.

8. Respective responsibilities

Directors' responsibilities

As explained more fully in their statement set out on page 126, the Directors are responsible for: the preparation of the financial statements including being satisfied that they give a true and fair view; such internal control as they determine is necessary to enable the preparation of financial statements that are free from material misstatement, whether due to fraud or error; assessing the Group and parent Company'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 they either intend to liquidate the Group or the parent Company or to cease operations, or have no realistic alternative but to do so.

Auditor's responsibilities

Our objectives are to obtain reasonable assurance about whether the financial statements as a whole are free from material misstatement, whether due to fraud or error, and to issue our opinion in an auditor's report. Reasonable assurance is a high level of assurance, but does not guarantee that an audit conducted in accordance with ISAs (UK) will always detect a material misstatement when it exists. Misstatements can arise from fraud or error and are considered material if, individually or in aggregate, they could reasonably be expected to influence the economic decisions of users taken on the basis of the financial statements.

A fuller description of our responsibilities is provided on the FRC's website at www.frc.org.uk/auditorsresponsibilities.

The Company is required to include these financial statements in an annual financial report prepared under Disclosure Guidance and Transparency Rule 4.1.17R and 4.1.18R. This auditor's report provides no assurance over whether the annual financial report has been prepared in accordance with those requirements.

9. The purpose of our audit work and to whom we owe our responsibilities

This report is made solely to the Company's members, as a body, in accordance with Chapter 3 of Part 16 of the Companies Act 2006. Our audit work has been undertaken so that we might state to the Company's members those matters we are required to state to them in an auditor's 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 and the Company's members, as a body, for our audit work, for this report, or for the opinions we have formed.

Andrew Campbell-Orde (Senior Statutory Auditor)
for and on behalf of KPMG LLP, Statutory Auditor
Chartered Accountants

15 Canada Square

London

E14 5GL

23 April 2024



Consolidated statement of comprehensive income

	Note	Year ended 31 December	
		2023 US\$'000	2022' US\$'000
Continuing operations			
Revenue	4	321,724	185,406
Cost of sales		(156,372)	(60,777)
Gross profit		165,352	124,629
Research and development expenses	5	(78,216)	(69,358)
Sales and marketing expenses		(12,810)	(4,647)
General and administration expenses		(40,821)	(15,465)
<i>of which expected credit loss</i>	24	(7,337)	(2,184)
Other operating (expense)/income	6	(52,857)	2,468
Operating (loss)/profit		(19,352)	37,627
Finance income	9	3,448	1,684
Finance expense	9	(8,836)	(3,588)
Loss from joint venture	16	(14,730)	(18,481)
(Loss)/profit before tax		(39,470)	17,242
Income tax expense	10	(11,532)	(18,328)
Net (loss)		(51,002)	(1,086)
Other comprehensive income/(expense)			
Items that may be reclassified subsequently to profit or loss:			
Currency exchange gain/(loss) on translation of foreign operations		10,161	(74,989)
		10,161	(74,989)
Items that will not be reclassified to profit or loss:			
Currency exchange remeasurements of defined benefit obligation	25	(1,207)	–
Related income tax credit		409	–
		(798)	–
Other comprehensive income/(expense)		9,363	(74,989)
Total comprehensive loss		(41,639)	(76,075)
Loss per share (US\$ cents)	11		
Basic		(7.23)	(0.16)
Diluted		(7.23)	(0.16)

1. There has been a change to the grouping of operating expenses in 2022, specifically relating to the compensation element of Baniyas deferred cash rights. This is shown within other operating expenses/(income) in 2023 so we have changed 2022 operating expenses/(income) to be presented on the same basis (see notes 6 and 30).

The notes on pages 140 to 185 form part of these financial statements.

Consolidated balance sheet

	Note	As at 31 December	
		2023 US\$'000	Restated ¹ 2022 US\$'000
Assets			
Cash and cash equivalents	17	101,291	186,231
Trade and other receivables	18	78,089	47,143
Contract assets	4	65,173	56,987
Inventories	19	11,622	18,061
Income tax receivables		23,467	2,922
Other current assets	20	19,017	71,475
Total current assets		298,659	382,819
Goodwill	12	309,199	309,199
Other intangible assets	13	203,314	161,406
Property and equipment – owned	14	20,654	13,421
Property and equipment – leased	15	15,262	14,553
Other investments		1,019	–
Trade and other receivables	18	6,392	19,272
Deferred tax assets	10	12,086	2,680
Total non-current assets		567,926	520,531
Total assets		866,585	903,350
Liabilities and equity			
Trade and other payables	21	69,285	88,665
Contract liabilities	4	56,026	96,933
Income taxes payable		1,051	–
Lease liabilities	15	3,953	3,756
Loans and borrowings	22	5,625	5,000
Total current liabilities		135,940	194,354
Trade and other payables	21	1,775	10,555
Lease liabilities	15	12,727	11,177
Loans and borrowings	22	214,750	205,201
Deferred tax liabilities	10	32,945	13,790
Total non-current liabilities		262,197	240,723
Total liabilities		398,137	435,077
Ordinary shares	26	10,011	9,751
Share premium account	26	1,638	775
Merger reserve	26	(793,216)	(793,216)
Share-based payment reserve	26	41,875	18,189
Currency translation reserve	26	(86,546)	(96,707)
Retained earnings		1,294,686	1,329,481
Total equity		468,448	468,273
Total liabilities and equity		866,585	903,350

1. Restated to reflect the finalisation of the purchase price allocation on the acquisition of OpenFive (see notes 12 and 30).

The financial statements on pages 136 to 139 were approved and authorised for issue by the Board of Directors on 23 April 2023 and were signed on its behalf by:

Tony Pialis

Director

The notes on pages 140 to 185 form part of these financial statements.

Consolidated cash flow statement

	Note	Year ended 31 December	
		2023 US\$'000	Restated ¹ 2022 US\$'000
Cash flows from operating activities			
Net (loss)		(51,002)	(1,086)
Non-cash items within operating profit:			
– Amortisation of intangible assets	13	13,294	6,159
– Depreciation of property and equipment – owned	14	11,212	2,472
– Depreciation of property and equipment – leased	15	4,612	3,036
– Share-based compensation expense	27	40,691	15,695
– Currency translation loss/(gain) on intercompany balances		15,466	(10,444)
Deferred cash rights		8,352	1,702
Other income		–	–
Finance income	9	(3,448)	(1,684)
Finance expense	9	8,836	3,588
Loss from joint venture	16	14,730	18,481
Income tax expense		4,533	13,130
Cash generated from operations before changes in working capital		67,276	51,049
Changes in working capital:			
(Increase) in trade and other receivables		(22,592)	(120,921)
Decrease/(increase) in inventories		6,439	(3,390)
(Increase) in contract assets		(8,186)	(22,554)
Increase in trade and other payables		23,503	51,973
(Decrease)/increase in contract liabilities		(40,907)	44,834
Cash generated from operations		25,533	991
Income taxes paid		(9,699)	(19,906)
Cash inflow/(outflow) from operating activities		15,834	(18,915)
Cash flows from investing activities			
Purchase of intangible assets	13	(1,825)	(4,131)
Purchase of property and equipment	14	(18,568)	(4,209)
Capitalised development expenditure		(53,254)	(7,202)
Investment in joint venture	16	(14,730)	(9,060)
Purchase of businesses, net of acquired cash		(7,369)	(403,588)
Interest received		3,118	1,270
Cash outflow from investing activities		(92,628)	(426,920)
Cash flows from financing activities			
Issue of ordinary shares	26	1,123	898
Interest paid		(18,390)	(650)
Lease payments	15	(4,740)	(3,038)
Drawdown of loans and borrowings		15,000	210,000
Repayment of loans and borrowings		(5,000)	(1,250)
Cash (outflow)/inflow from financing activities		(12,007)	205,960
Net decrease in cash and cash equivalents		(88,801)	(239,875)
Cash and cash equivalents at the beginning of the year		186,231	500,964
Currency translation gain/(loss) on cash and cash equivalents		3,861	(74,858)
Cash and cash equivalents at the end of the year	17	101,291	186,231

1. Restated to reflect the finalisation of the purchase price allocation on the acquisition of OpenFive (see notes 12 and 30).

A reconciliation of changes in liabilities arising from financing activities is presented in note 22.

The notes on pages 140 to 185 form part of these financial statements.

Consolidated statement of changes in equity

	Note	Ordinary share capital US\$'000	Share premium account US\$'000	Merger reserve US\$'000	Share-based payment reserve US\$'000	Currency translation reserve US\$'000	Retained earnings US\$'000	Total US\$'000
As at 1 January 2022		9,399	—	(793,216)	4,777	(21,718)	1,328,530	527,772
Net loss		—	—	—	—	—	(1,086)	(1,086)
Other comprehensive expense		—	—	—	—	(74,989)	—	(74,989)
Total comprehensive loss		—	—	—	—	(74,989)	(1,086)	(76,075)
Settlement of share awards:								
– Issue of ordinary shares	26	352	775	—	(246)	—	—	881
– Transfer of cumulative compensation expense on settled awards	27	—	—	—	(2,037)	—	2,037	—
Share-based compensation expense for the year	27	—	—	—	15,695	—	—	15,695
Other changes in equity		352	775	—	13,412	—	2,037	16,576
As at 31 December 2022		9,751	775	(793,216)	18,189	(96,707)	1,329,481	468,273
Net loss for the year		—	—	—	—	—	(51,002)	(51,002)
Other comprehensive expense		—	—	—	—	10,161	(798)	9,363
Total comprehensive loss for the year		—	—	—	—	10,161	(51,800)	(41,639)
Settlement of share awards:								
– Issue of ordinary shares	26	260	863	—	—	—	—	1,123
– Transfer of cumulative compensation expense on settled awards	27	—	—	—	(17,005)	—	17,005	—
Share-based compensation expense for the year	27	—	—	—	40,691	—	—	40,691
Other changes in equity		260	863	—	23,686	—	17,005	41,814
As at 31 December 2023		10,011	1,638	(793,216)	41,875	(86,546)	1,294,686	468,448

The notes on pages 140 to 185 form part of these financial statements.

Notes to the consolidated financial statements

FOR THE YEAR ENDED 31 DECEMBER 2023

1 Background

Reporting entity

Alphawave IP Group plc (the 'Company') is a public limited company that is incorporated and domiciled in England and Wales and whose shares are listed on the main market of the London Stock Exchange. The address of the Company's registered office is 6th Floor, 65 Gresham Street, London, EC2V 7NQ, United Kingdom.

The principal activities of the Company and its subsidiaries (together, the 'Group') are the development and marketing of high-speed connectivity solutions for application in data centres, data networking, data storage, artificial intelligence, 5G wireless infrastructure and autonomous vehicles.

Statement of compliance

The consolidated financial statements set out on pages 136 to 185 have been prepared in accordance with International Financial Reporting Standards (IFRS) as adopted for use in the United Kingdom and those parts of the Companies Act 2006 that are applicable to companies reporting under IFRS. The consolidated financial statements also comply with IFRS as issued by the International Accounting Standards Board (IASB).

Basis of preparation

The consolidated financial statements have been prepared on a going concern basis and in accordance with the historical cost convention, except that certain investments and contingent consideration are measured at fair value. Fair value is the price that would be received to sell an asset or paid to transfer a liability in an orderly transaction between market participants at the measurement date. Information about assets and liabilities that are measured at fair value is presented in note 23.

The Group's material accounting policies are set out in note 2.

Going concern

At the time of approving the financial statements, the Directors are required to form a judgement as to whether the Group and the Company have adequate resources to continue in operational existence for the foreseeable future. In forming their judgement, the Directors consider the Group's current financial position, the Group's medium-term plan and its budget for the next financial year, and the principal risks and uncertainties that it faces.

As at 31 December 2023, the Group had cash and cash equivalents of US\$101.3m and had bank borrowings totalling US\$220.4m, comprised of a Term Loan of US\$95.4m and US\$125.0m drawn against a US\$125.0m Revolving Credit Facility. Both the Term Loan and the Revolving Credit Facility are scheduled to mature in the fourth quarter of 2027.

The Directors based their going concern assessment on the base case scenario and a severe but plausible downside scenario over the going concern period as follows:

- > Group revenue forecasts are materially reduced by 25% and the interest rate on the Group's debt is 200 basis points higher than forecast, with a controllable mitigating reduction of 10% of operating expenditure and a reduction of 50% in laboratory and prototyping operating and capital expenditure.

Under both the base and downside scenario, there are no further investments forecast to be made to WiseWave.

Under the base case and the downside scenario, the analysis demonstrates the Group can continue to maintain sufficient liquidity headroom with no default on debt covenants.

Following consideration of the Group's liquidity position and prospects for the year ahead, the Directors have a reasonable expectation that the Group has adequate resources for a period of at least twelve months from the date of approval of the consolidated financial statements and have therefore assessed that the going concern basis of accounting is appropriate in preparing the consolidated financial statements.

Segment information

An operating segment is a component of an entity that engages in business activities from which it may earn revenues and incur expenses for which discrete financial information is available and whose operating results are regularly reviewed by the Chief Operating Decision Maker (CODM) to assess performance and make resource allocation decisions.

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 or own products. Moreover, the Group's products and services are of similar nature and are provided to similar types of customers in similar locations. Our CODM, the Chief Executive Officer, therefore does not utilise disaggregated information for resource allocation decisions. Accordingly, management considers that the Group's business constitutes only one operating segment and therefore no disaggregated information is presented in the consolidated financial statements.

Presentation currency

The Directors consider that the Company's functional currency is pound sterling, but present the consolidated financial statements in US dollars ('US\$') because substantially all of the Group's revenues and a significant part of its expenses are denominated in US\$. US\$ is the presentation currency used by most companies in the semiconductor industry and its use by the Group therefore assists investors in making comparisons with its peers.

All US\$ amounts are rounded to the nearest thousand, unless stated otherwise.

Use of estimates

The preparation of the financial statements requires management to make estimates and assumptions that affect the reported amounts of assets and liabilities at the date of the financial statements and the reported amounts of revenues and expenses during the reporting period. Changes in estimates and assumptions are accounted for prospectively. Actual outcomes may differ from estimates and assumptions and affect the Group's results in future periods. Key sources of estimation uncertainty affecting the consolidated financial statements are discussed in note 3.

Approval of the consolidated financial statements

The consolidated financial statements for the year ended 31 December 2023 were authorised for issue by the Board of Directors on 23 April 2024.

Company financial statements

Separate financial statements for the Company are set out on pages 190 and 191.

Accounting standards adopted during the year

IFRS 17 Insurance Contracts

IFRS 17 requires liabilities in relation to insurance contracts to be measured at current fulfilment value and provides a more uniform measurement and presentation approach for all insurance contracts compared with the standard that it replaced, IFRS 4 Insurance Contracts.

While the Group established a captive insurance subsidiary with the intention of providing Directors' and Officers' liability insurance, it has not transacted any business. Accordingly, the adoption of IFRS 17 had no impact on the consolidated financial statements.

Classification of Liabilities as Current or Non-Current and Non-current Liabilities with Covenants (Amendments to IAS 1)

Amendments to IAS 1 Presentation of Financial Statements were issued by the IASB in 2020 and 2022 to clarify that the classification of liabilities with an uncertain settlement date as current or non-current is based on rights that are in existence at the end of the reporting period and to introduce new disclosure requirements for non-current liabilities that are subject to covenants.

While adoption of the amendments was not mandatory for the Group until 1 January 2024, we adopted them early with effect from 1 January 2023.

As disclosed in note 22, the Group has outstanding borrowings under a Term Loan facility and a Revolving Credit Facility that are subject to financial covenants. For the period ended on 30 June 2023, the Fixed Charges Coverage Ratio was below the minimum permitted level of 1.25x.

As a consequence of having adopted the amendments to IAS 1, since the breach of the covenant was unresolved as at 30 June 2023, the amounts outstanding under the Term Loan and the Revolving Credit Facility were classified wholly as current liabilities in the consolidated balance sheet as at that date.

On 22 September 2023, we agreed an amendment of the Credit Agreement with the lenders that temporarily suspended the Fixed Charges Covenant Ratio but introduced a Minimum Liquidity Requirement. Since the Group was not in breach of the amended financial covenants as at 31 December 2023, the appropriate portion of the amounts owed under the Term Loan facility and the Revolving Credit Facility are classified as non-current liabilities in the consolidated balance sheet as at that date.

International Tax Reform – Pillar Two Model Rules (Amendments to IAS 12)

In October 2021, the OECD published its Global Anti-Base Erosion Model Rules (Pillar Two) that seek to ensure that large multinational enterprises pay a minimum effective corporate tax rate of 15% on the income arising in each jurisdiction where they operate.

In view of the uncertainties that exist during the implementation phase, in May 2023, the IASB issued amendments to IAS 12 Income Taxes that introduce a temporary exception under which an entity does not recognise any deferred tax assets or liabilities related to Pillar Two top-up taxes together with new disclosure requirements concerning an entity's estimated exposure to them. The amendments became effective for the Group immediately following their endorsement for use in the UK in July 2023.

Since the Group does not currently operate in any jurisdiction where it expects to have a liability for Pillar Two top-up taxes, adoption of the amendments has had no impact on the consolidated financial statements.

Definition of Accounting Estimates (Amendments to IAS 8)

Amendments to IAS 8 Accounting Policies, Changes in Accounting Estimates and Errors that introduce a definition of an accounting estimate to be applied where items are subject to measurement uncertainty and clarify that a change in an accounting estimate that results from new information or new developments is not the correction of an error.

Adoption of the amendments did not have a material impact on the consolidated financial statements.

Disclosure of Accounting Policies (Amendments to IAS 1 and IFRS Practice Statement 2)

Amendments to IAS 1 to require the disclosure of 'material', rather than 'significant', accounting policies. Although adoption of the amendments did not result in any change in the Group's accounting policies themselves, they have caused management to revise the accounting policy information disclosed in the consolidated financial statements.

Notes to the consolidated financial statements continued

FOR THE YEAR ENDED 31 DECEMBER 2023

1 Background continued

Accounting standards adopted during the year continued

Deferred Tax related to Assets and Liabilities arising from a Single Transaction (Amendments to IAS 12)

Amendments to IAS 12 that have the effect that the exemption from the requirement to recognise deferred tax assets and liabilities on initial recognition of a transaction does not apply to transactions in which equal amounts of deductible and taxable temporary differences arise on initial recognition, for example where a lessee recognises an asset and a liability on the commencement of a lease.

The Group previously accounted for deferred tax on leases on a net basis. Since adopting the amendments, where appropriate, the Group has recognised a separate deferred tax asset in relation to its lease liabilities and a deferred tax liability in relation to its right-of-use assets. However, there was no impact on the consolidated financial statements because the deferred tax assets and liabilities recognised qualified for offset under IAS 12.

Accounting standards issued but not adopted as at 31 December 2023

Supplier Finance Arrangements (Amendments to IAS 7 and IFRS 7)

Amendments to IAS 7 Statement of Cash Flows and IFRS 7 Financial Instruments: Disclosures that add new disclosure requirements to the nature and extent of supplier finance arrangements (also known as 'reverse factoring'). The amendments became effective for the Group on 1 January 2024.

The Group does not currently provide supplier finance arrangements.

Lease Liability in a Sale and Leaseback (Amendments to IFRS 16)

Amendments to IFRS 16 Leases that clarify how a seller-lessee measures sale and leaseback transactions. The amendments became effective for the Group on 1 January 2024.

Management will refer to the new guidance in the event that the Group enters into any sale and leaseback transactions in the future.

Lack of Exchangeability (Amendments to IAS 21)

Amendments to IAS 21 The Effects of Changes in Foreign Exchange Rates to provide guidance to identify when a currency is exchangeable and how to determine the exchange rate to be used for accounting purposes when it is not. Subject to their endorsement for use in the UK, the amendments will become effective for the Group on 1 January 2025.

Management does not expect that adoption of the new guidance will have a material impact on the consolidated financial statements.

2 Material accounting policies

Basis of consolidation

The consolidated financial statements incorporate the results, cash flows and assets and liabilities of the Company and its subsidiaries.

A subsidiary is an entity that is controlled, either directly or indirectly, by the Company. Control exists when the Company is exposed, or has rights, to variable returns from its involvement with the entity and has the ability to affect those returns through its power to direct the relevant activities of the entity. Generally, such power exists where the Company holds a majority of the voting rights of an entity. When the Company holds less than a majority of the voting rights of an entity, it considers all relevant facts and circumstances in assessing whether or not its voting rights are sufficient to give it power to direct the activities that significantly affect its returns from the entity, including: the size of the Company's holding of voting rights relative to the size and dispersion of the holdings of other vote holders; potential voting rights held by the Company, other vote holders or other parties; and rights arising from other contractual arrangements.

Details of the Company's subsidiaries as at 31 December 2023 are set out on page 198.

Consolidation of a subsidiary commences when the Company obtains control over the subsidiary and ceases at such time as control over the subsidiary is lost. Transactions and balances between members of the Group, and any unrealised profits or losses on such transactions, are eliminated on consolidation.

Changes in the Company's ownership interest in a subsidiary that do not result in a loss of control are accounted for within equity.

Joint ventures

A joint venture is a joint arrangement where the parties that have joint control of the arrangement have rights to the net assets of the arrangement, rather than rights to its assets and obligations for its liabilities. Joint control is the contractually agreed sharing of control of an arrangement which exists only when decisions about the activities that significantly affect the returns of the arrangement require the unanimous consent of the parties sharing control.

Joint ventures are accounted for using the equity method. On initial recognition the investment in a joint venture is recognised at cost and the carrying amount of the investment is increased or decreased to recognise the Group's share of the comprehensive income or loss of the joint venture after the date of acquisition. If the Group's share of losses of a joint venture equals or exceeds its interest in the joint venture, the Group does not recognise its share of further losses. After the Group's interest in a joint venture is reduced to nil, additional losses are provided for, and a liability recognised, only to the extent that it has incurred legal or constructive obligations or made payments on behalf of the joint venture.

The Group's investment agreement in its joint venture, WiseWave Technology Co., LTD, stipulates that Alphawave can invest up to US\$170,000,000 in WiseWave. Any requirement for a capital contribution is a shareholder reserved matter which requires the explicit approval of Alphawave as joint investor. As such, the Group does not have a constructive obligation to fund the joint venture and therefore additional losses recorded after the Group's interest in the joint venture have reduced to nil are not provided for and no liability is recognised.

Unrealised profits and losses arising on transactions involving assets between the Group and a joint venture are recognised only to the extent of unrelated investors' interests in the joint venture. Accordingly, the Group's share of its profit from the licensing of IP or the sale of products to a joint venture is eliminated to the extent that the resulting asset has not been utilised by the joint venture or sold on to a third party. Such elimination is made in arriving at the Group's share of the profit or loss from the joint venture and correspondingly against its interest in the joint venture. However, such elimination is made after the Group has recognised its share of the comprehensive income or loss of the joint venture and only to the extent that its interest in the joint venture is reduced to nil.

Business combinations

A business combination is a transaction or other event in which the Company obtains control over a business.

Business combinations are accounted for using the acquisition method.

Goodwill acquired in a business combination is recognised as an intangible asset and represents the excess of the aggregate of the consideration transferred, including contingent consideration, and the amount of any non-controlling interests in the acquired business over the net total of the identifiable assets and liabilities of the acquired business at the acquisition date. Any shortfall, negative goodwill, is recognised immediately as a gain in profit or loss.

Consideration transferred represents the sum of the fair values at the acquisition date of the assets given, liabilities incurred or assumed and equity instruments issued by the Group in exchange for control over the acquired business.

Acquisition-related costs are charged to profit or loss in the period in which they are incurred.

Identifiable assets and liabilities of the acquired business are measured at their fair value at the acquisition date, except for certain items that are measured in accordance with the relevant Group accounting policy, such as replacement equity-settled share-based compensation awards and deferred tax assets and liabilities.

Non-controlling interests that entitle their holders to a proportionate share of the net assets of the acquired business in the event of a liquidation are measured either at fair value or at the non-controlling interest's proportionate share of the identifiable assets and liabilities of the business. Other non-controlling interests are measured at fair value.

If the initial accounting for a business combination is incomplete by the end of the reporting period in which the combination occurs, provisional amounts are reported for the items for which the accounting is incomplete. During a measurement period of up to one year after the acquisition date, adjustments may be made to the provisional amounts as if the accounting for the business combination had been completed at the acquisition date. Thereafter, the initial accounting for a business combination may not be adjusted except to correct an error.

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.

Revenue recognition

General principles

Revenue is recognised in accordance with IFRS 15 Revenue from Contracts with Customers, upon transfer of control of promised products or services to customers in an amount that reflects the consideration the Group expects to be entitled to in exchange for those products or services.

Revenue represents the consideration to which the Group expects to be entitled in exchange for transferring goods or services to a customer, excluding sales taxes and, where applicable, including estimates of rebates, product returns and other forms of variable consideration. Variable consideration is included in revenue only to the extent that we consider that it is highly probable that a significant reversal in the amount of cumulative revenue recognised will not occur when the uncertainty associated with the variable consideration is subsequently resolved.

Notes to the consolidated financial statements continued

FOR THE YEAR ENDED 31 DECEMBER 2023

2 Material accounting policies continued

Revenue recognition continued

IP licensing

The Group enters into contracts with customers to license intellectual property (IP) products, which consist primarily of software files that customers use to create, integrate and operate functional building blocks within a semiconductor device. Such contracts typically include the provision of support to customers during the integration of the IP product into their chip design ('integration support') and when ensuring that the IP product is functional within the resulting chip ('bring up support').

The Group typically licenses its IP products under standard pay-per-use licence agreements and are delivered over the period its customers are developing their semiconductor devices, which can span several years.

The Group licenses two different types of IP product:

- > hard IP, which has to be specifically tailored for different manufacturing process technologies, as it contains analogue circuitry whose characteristics may change depending on the manufacturing process; and
- > soft IP, which typically contains only digital circuitry and where computer-aided design tools can enable the IP to work with different manufacturing processes.

Contracts to license the Group's IP products specify the consideration to be paid by the customer, based on the specific IP products licensed and the amount of any non-recurring engineering (NRE) required. Invoicing is typically aligned with the achievement of project milestones. Support services are generally separately priced within the contract and are invoiced on an annual basis.

Where a contract involves more than one performance obligation, we allocate the transaction price to the performance obligations based on their relative stand-alone selling prices.

Hard IP

Due to the complexity of the IP products being delivered and the need for customers to integrate the IP products with other IP building blocks in their chip designs, the Group's IP products are typically delivered in multiple stages, referred to as IP views, all of which require some level of customisation and/or configuration. Although delivery of the licensed IP products is split over multiple deliveries of IP views, these deliveries are not distinct because each IP view is highly dependent on or interrelated with one or more of the other IP views.

Further, we do not consider any NRE work required to configure the IP products to be distinct because customers are unable to benefit from the IP views on their own or together with other resources readily available to them, due to the bespoke nature of the configuration that the Group performs on the hard IP products. We therefore consider that the delivery of the IP views and the configuration of the IP products represents a single performance obligation.

We recognise revenue on hard IP products by reference to the stage of completion of the project, measured based on the engineering hours spent on work performed to date as a percentage of the estimated total project hours.

Soft IP

While the initial delivery of IP may not be to a customer's exact specification, customers are able to use the IP without significant modification and therefore benefit from it on its own or together with resources readily available to them.

We therefore consider the initial delivery of IP to be a separate performance obligation.

We consider any customisation work and subsequent IP deliveries to be a single separate performance obligation because they are distinct from the initial IP delivery but are highly dependent or interrelated with each other.

We recognise revenue on the initial IP when the IP is delivered to the customer.

We recognise revenue on customisation and subsequent IP deliveries by reference to the stage of completion of the project and achievement of specific contractual milestones when successive deliveries of customised IP are made.

Support

Support services are considered a separate performance obligation from delivery of the IP products because customers could benefit from the services on their own or with other resources that are readily available to them.

Our obligation to provide support services is a stand-ready obligation over a specified period, the timing of which is uncertain and there is typically no maximum number of hours stated in the contract. Revenue from support services is therefore recognised on a straight-line basis over the contractual period of support provision.

Custom silicon

The Group enters into contracts with customers to develop custom silicon products that can include various combinations of IP provided by the Group, IP provided by third parties, other third-party costs required to prototype the device and the Group's internal engineering costs and, if those products go into production, to supply them to those customers. Custom silicon development contracts vary according to the proportion of the engineering work that the Group is required to undertake. For example, the customer may provide a specification only, with the Group designing, implementing and manufacturing the resulting chip, utilising third-party manufacturers. Alternatively, a customer may provide their own design, and only utilise the Group's supply chain infrastructure to manage the manufacturing of the chip. All custom silicon contracts specify that the Group owns the unique mask set of the chip design and, therefore, if the resulting chip goes into production, it can only be supplied to the customer by us. Equally, however, the customer controls the chip design because the Group cannot use it for any purpose other than to manufacture chips for the customer.

Custom silicon development projects are typically complex and highly customised with detailed engineering schedules and deliverables. A custom silicon project may include internal engineering services, our IP, IP support services, third-party IP, tooling costs and prototypes. While these elements are capable of being distinct, they are not distinct in the context of the contract. Each deliverable is highly dependent on or interrelated with one or more of the other goods or services in the contract and the nature of the obligation is to deliver a combined output in the form of a completed design or prototype.

We therefore consider custom silicon development to be a single performance obligation.

We consider that the supply of chips following release to production is a separate performance obligation which arises on receipt of a silicon purchase order from the customer. Custom silicon contracts do not contain purchase volume commitments and therefore the supply of chips is not only capable of being distinct, but is also distinct in the context of the contractual arrangements.

Custom silicon contracts specify the consideration receivable for the custom design work, including any third-party components, as well as pricing for any subsequent silicon orders. Pricing of the design work will depend on factors including chip complexity, manufacturing process technology and IP costs. Invoicing for development work is typically aligned with the achievement of project milestones. Contracts are typically cancellable by the customer for convenience during the design phase. In the event of cancellation, the customer will be liable to make payment corresponding to a future contract milestone or a specified fixed percentage of the contract value.

We recognise revenue on custom silicon development projects by reference to the stage of completion of the project, measured based on the costs incurred for work performed to date as a percentage of the estimated total development costs.

Supply of silicon products

The Group enters into contracts with customers for the supply of silicon devices that are developed by the Group to the customer's specification. Silicon products are physical goods held as inventory with revenue recognised at a point in time when the customer obtains control of the products. Accordingly, where products are sold on 'ex-works' incoterms, revenue is recognised when the products are released for collection by the customer. Otherwise, revenue is recognised when the products are delivered to the customer. Where products are supplied on a consignment basis, delivery takes place and revenue is recognised when the products are taken out of the consignment by the customer.

Reseller fees

VeriSilicon licensed the Group's IP products to third-party customers under an exclusive IP subscription reseller agreement that ended in December 2023. Under the agreement, we charged VeriSilicon exclusivity fees for each calendar year that we invoiced to them and collected on a quarterly basis.

The exclusivity fees represented minimum annual payments by VeriSilicon against which it could offset purchases of our IP products for license to third parties at any time during the relevant calendar year. We carried out the necessary customisation and/or configuration of our IP products to meet the requirements of the end-customers.

We recognised revenue under the agreement by reference to the stage of completion of the related customisation and/or configuration project, measured based on the engineering hours spent on work performed as a percentage of the estimated total project hours. Any unutilised exclusivity payments could not be carried forward by VeriSilicon to future calendar years.

We therefore recognised any unutilised exclusivity payments as additional revenue at the end of the relevant calendar year.

Licence agreement with joint venture

We have a subscription licence agreement that provides WiseWave with right of use over a library of our IP products for a fixed fee spread over a period of five years ending in 2026. As we do not usually provide individual licences without NRE to customers it is difficult to determine the standalone selling price of each of the IP products. Based on engineering schedules, we therefore estimated the total number of IP products that we expect to provide into the library over the duration of the agreement in order to calculate the estimated unit price of the IP products. Given that the number of products to be put into the library in the future is uncertain, the estimated unit price of the IP products constitutes variable consideration. We therefore exercise judgement in applying constraints to the unit price of the IP products in order to minimise the risk of significant reversals of revenue in future periods. Revenue on this agreement is recognised at a point in time when an IP product is added to the library, as this is when we consider control of the IP product is transferred to WiseWave.

Contract modifications

A contract modification is a change in the scope or price (or both) of a contract that is approved by the parties to the contract.

Modifications to our IP products and custom silicon development contracts with customers do not normally involve the addition of goods or services that are distinct from those already being provided under the contract. Such modifications are therefore accounted for as an adjustment to the existing contract rather than as a separate contract. Accordingly, the effect that the modification has on the transaction price and/or on the measure of progress to completion of the contract is recognised as a cumulative catch-up adjustment to revenue when the modification is approved.

Contract balances

Contract assets represent the amount of revenue recognised on IP and product development contracts that has not yet been billed to the customer.

Contract liabilities represent amounts billed to customers in excess of revenue recognised on IP and product development contracts.

Notes to the consolidated financial statements continued

FOR THE YEAR ENDED 31 DECEMBER 2023

2 Material accounting policies continued

Revenue recognition continued

Costs of obtaining contracts

Incremental costs of obtaining a contract with an expected duration of more than one year are recognised as an asset that is amortised over the period of the contract in proportion to the recognition of the revenue receivable on the contract.

As permitted by IFRS 15, the costs of obtaining contracts with an expected duration of one year or less are expensed as they are incurred.

Onerous contracts

If a contract with a customer is considered to be onerous, a provision is recognised to the extent that the remaining unavoidable costs of meeting the obligations under the contract exceed the remaining benefits to be received under it.

Research and development (R&D)

All research expenditure is expensed as it is incurred.

Development expenditure is also expensed as it is incurred until such time as it can be demonstrated that the product is both technically feasible and commercially viable and that management intends to complete the development of the product and sell it to customers. Development expenditure incurred after that time and before the developed product is available to be put into full production is capitalised.

R&D expenditure credits

R&D expenditure credits principally comprise amounts claimed from the Canadian federal and provincial government under the Scientific Research and Experimental Development (SRED) incentive programme. Claims are made annually based on assumptions and estimates made by management in determining the eligible R&D expenditure incurred during the year. Claims made are subject to review and approval by the Canadian tax authorities and may be subject to adjustment in subsequent years.

R&D expenses are stated after deducting R&D expenditure credits claimed for the year and any adjustments to amounts claimed in previous years. We recognise a corresponding receivable for R&D expenditure credits claimed. R&D expenditure credits receivable are settled by deduction from the amount of income tax payable to the Canadian tax authorities. Any excess of the R&D expenditure credits receivable over income tax payable is paid to the Group by the tax authorities.

Goodwill

Goodwill acquired in a business combination is carried at cost, less impairment losses, if any.

Internally generated goodwill is not recognised as an asset.

Other intangible assets

Other intangible assets comprise identifiable intangibles acquired in business combinations (principally customer-related assets and developed technology), licences and capitalised product development costs.

Other intangible assets are carried at cost less accumulated amortisation and impairment losses, if any. Cost comprises the purchase price of the asset and any costs directly attributable to preparing the asset for its intended use, or, in the case of an asset acquired in a business combination, is its fair value at the acquisition date.

Other intangible assets are amortised on a straight-line basis so as to charge their cost to profit or loss over their estimated useful lives as follows:

Developed IP	– 4 to 5 years
Developed technology	– 4 to 8 years
Customer relationships	– 12 years

Note developed technology includes all capitalised development. Estimated useful lives are regularly reviewed and the effect of any change in estimate is accounted for prospectively by adjustment to the amortisation expense. Other intangible assets are regularly reviewed to eliminate obsolete items.

Property and equipment – owned

Property and equipment is carried at cost less accumulated depreciation and impairment losses, if any. Cost comprises the purchase price of the asset and any costs directly attributable to bringing the asset to the location and condition necessary to enable its intended use, or, in the case of an asset acquired in a business combination, is its fair value at the acquisition date.

Repair and maintenance costs are charged to profit or loss in the period in which they are incurred.

Items of property and equipment are depreciated on a straight-line basis so as to charge their cost, less estimated residual value, to profit or loss over their expected useful lives as follows:

Computer equipment	– 2 years
Furniture and fixtures	– 5 years
Leasehold improvements	– 2½ years
Laboratory equipment	– 2 years

Depreciation methods, useful lives and residual values are reviewed at each balance sheet date and the effect of any change in estimate is accounted for prospectively by adjustment to the depreciation expense. Property and equipment is regularly reviewed to eliminate obsolete items.

Any gain or loss arising on disposal of property and equipment is recognised in profit or loss.

Property and equipment – leased

Where the Group is lessee in a lease arrangement, it recognises a right-of-use asset and an associated lease liability, except where the leased asset is of low value or the lease is short term (a lease term of twelve months or less).

On the commencement date of a lease, the lease liability is measured at the present value of the future lease payments discounted using the interest rate implicit in the lease, if that rate can be readily determined, or using the lessee entity's incremental borrowing rate. Future lease payments comprise fixed lease payments, less any lease incentives receivable, variable payments that depend on an index or rate (initially measured using the index or rate at the commencement date) and, where applicable, amounts expected to be paid under a residual value guarantee, a purchase option or by way of termination penalties.

Variable lease payments that do not depend on an index or rate are not reflected in the lease liability and are recognised in profit or loss in the period in which the event that triggers those payments occurs.

After the commencement date, the carrying amount of the lease liability is increased to reflect the accrual of interest, reduced to reflect lease payments made and remeasured to reflect reassessments of the future lease payments or certain lease modifications. Interest on the lease liability is recognised in profit or loss (within interest expense).

On the commencement date of a lease, the right-of-use asset is measured at cost which comprises the initial amount of the lease liability, adjusted for any lease payments made at or before the commencement date, plus any initial direct costs incurred and an estimate of any dismantling or restoration costs (typically leasehold dilapidations).

The right-of-use asset is subsequently depreciated using the straight-line method from the commencement date to the end of the lease term, unless the lease transfers ownership of the underlying asset to the Group by the end of the lease term or the cost of the right-of-use asset reflects that the Group will exercise a purchase option. In that case, the right-of-use asset will be depreciated over the useful life of the underlying asset, which is determined on the same basis as those of property and equipment. In addition, the right-of-use asset is periodically reduced by impairment losses, if any, and adjusted for certain remeasurements of the lease liability.

Where a contract contains a lease and non-lease components (for example, property maintenance services) and the contractual payments cannot be readily allocated to the lease component, the Group accounts for the entire contract as a lease.

Lease payments relating to low-value assets or to short-term leases are recognised as an expense (in arriving at operating profit) on a straight-line basis over the lease term.

Cloud-computing arrangements

Software-as-a-Service (SaaS) arrangements convey to the Group the right to access the supplier's application software rather than control over the software. SaaS arrangements are accounted for as service contracts (rather than as a lease or the purchase of an intangible asset). Accordingly, the cost of a SaaS arrangement is recognised as an expense on a systematic basis over the term of the arrangement.

Costs that we incur to configure or customise the provider's software in a SaaS arrangement are recognised as an expense as incurred or, if not distinct from the right to access the software, over the term of the arrangement.

Capitalisation of borrowing costs

Borrowing costs are capitalised if they are directly attributable to the acquisition, construction or production of a qualifying asset, being an asset that takes a substantial period of time to get ready for its intended use. Borrowing costs are considered to be directly attributable to a qualifying asset if the related borrowings would have been avoided if the expenditure on the asset had not been made.

Impairment of tangible and intangible assets

Goodwill, other intangible assets and property and equipment are tested for impairment whenever events or circumstances indicate that their carrying amounts may not be recoverable. Additionally, goodwill and intangible assets still under development are subject to an annual impairment test.

An asset is impaired to the extent that its carrying amount exceeds its recoverable amount. An asset's recoverable amount is the higher of its value-in-use and its fair value less costs of disposal. An asset's value-in-use represents the present fair value of the future cash flows expected to be derived from the asset in its current use and condition. Fair value less costs of disposal is the amount expected to be obtainable from the sale of the asset in an arm's length transaction between knowledgeable, willing parties, less the costs of disposal.

Where it is not possible to estimate the recoverable amount of an individual asset, the recoverable amount is determined for the cash-generating unit (CGU) to which the asset belongs. An asset's CGU is the smallest identifiable group of assets that includes the asset and generates cash inflows that are largely independent of the cash inflows from other assets or groups of assets. Goodwill does not generate cash flows independently of other assets and is, therefore, tested for impairment at the level of the CGU or group of CGUs that are expected to benefit from the synergies of the related business combination.

Value-in-use is based on pre-tax estimates of pre-tax cash flows in the periods covered by budgets and/or plans that have been approved by the Board. Such cash flow estimates are discounted at a pre-tax discount rate that reflects the current market assessments of the time value of money and specific risks.

Notes to the consolidated financial statements continued

FOR THE YEAR ENDED 31 DECEMBER 2023

2 Material accounting policies continued

Impairment of tangible and intangible assets continued

Impairment losses are recognised in profit or loss.

Impairment losses recognised in previous periods for assets other than goodwill are reversed if there has been a change in the estimates used to determine the asset's recoverable amount, but only to the extent that the asset's carrying amount does not exceed the carrying amount that would have been determined had no impairment loss been recognised in previous periods. Impairment losses in respect of goodwill are not reversed.

Inventories

Inventories comprise raw materials, work in progress and finished goods.

Inventories are stated at the lower of cost and net realisable value. Cost is determined using the weighted-average cost method and includes expenditure incurred in acquiring the inventories and in bringing them to their present location and condition. In the case of work in progress and finished goods, cost includes an appropriate share of overheads based on normal operating capacity. Net realisable value represents the estimated selling price, less estimated costs of completion and marketing, selling and distribution costs.

Financial instruments

Cash and cash equivalents

Cash and cash equivalents comprise cash at bank and on hand and bank deposits with an original maturity of 90 days or less. Cash and cash equivalents are measured at fair value on initial recognition, less an allowance for expected credit losses, and subsequently measured at amortised cost using the effective interest method.

Contract assets

Contract assets represent the amount of revenue recognised on IP and product development contracts that has not yet been invoiced to the customer, less an allowance for expected credit losses.

Trade and other receivables

Trade receivables represent the amount of revenue from customers that has been invoiced, but for which payment has not been received. Trade and other receivables are measured at fair value on initial recognition, less an allowance for expected credit losses, and subsequently measured at amortised cost.

Equity investments

Equity investments are measured at fair value through profit or loss unless we make an irrevocable election on initial recognition to measure them at fair value through other comprehensive income. Gains and losses recognised in other comprehensive income are not reclassified to profit or loss in the event that the investment is sold.

Impairment of financial assets

The Group recognises an allowance for credit losses in respect of trade receivables and contract assets measured as the amount of the lifetime expected credit losses estimated using a provision matrix based on the Group's historical credit loss experience, adjusted for factors that are specific to the customers, and general current and forecasted economic conditions.

We recognise an allowance for credit losses in respect of other financial assets that is measured as the amount of expected credit losses over the next twelve months. If, however, the risk of default has increased significantly since initial recognition, we measure the allowance as the amount of lifetime expected credit losses.

If a financial asset has no realistic prospect of recovery, it is written off, firstly against any allowance made and then directly to profit or loss. We consider that a financial asset is not recoverable if the balance owing is 365 days past due and information obtained from the counterparty and other external factors indicate that the counterparty is unlikely to pay its creditors in full. Any subsequent recoveries are credited to profit or loss.

Trade and other payables

Trade payables represent the value of goods and services purchased from suppliers for which payment has not been made. Trade and other payables are measured at fair value on initial recognition and subsequently measured at amortised cost.

Contingent consideration liabilities

Contingent consideration that is classified as a liability is measured at fair value through profit or loss. Contingent consideration that is classified as equity is not remeasured and its subsequent settlement is accounted for within equity.

Loans and borrowings

Bank and other loans are measured at fair value on initial recognition, less any directly attributable transaction costs, and are subsequently measured at amortised cost using the effective interest method.

If a loan or borrowing is subject to covenants and the Group is in breach of one or more of the covenants at the end of the reporting period, the carrying amount of the liability is classified wholly as a current liability, irrespective of any element that would otherwise be payable more than one year after the end of the reporting period.

Facility arrangement costs are amortised as a finance expense over the term of the facility.

Offsetting financial instruments

Financial assets and financial liabilities are offset and the net amount presented in the balance sheet where there is a currently enforceable legal right to offset the recognised amounts and management intends either to settle on a net basis or to realise the asset and settle the liability simultaneously.

Contract liabilities

Contract liabilities represent amounts invoiced to customers in excess of revenue recognised on IP and product development contracts.

Share-based payments

As described in note 27, the Company operates share-based payment plans under which it grants options and RSUs over its ordinary shares to certain of its employees and those of its subsidiaries. Awards granted under the existing plans are classified as equity-settled awards.

We recognise a compensation expense that is based on the fair value of the awards measured at the grant date using an appropriate valuation model. Fair value is not subsequently remeasured unless relevant conditions attaching to the awards are modified.

Fair value reflects any market performance conditions and all non-vesting conditions. Adjustments are made to the compensation expense to reflect actual and expected forfeitures due to failure to satisfy service conditions or non-market performance conditions.

We recognise the resulting compensation expense on a systematic basis over the vesting period and a corresponding credit is recognised in the share-based payments reserve within equity.

In the event of the cancellation of an option or an award by the Company or by the participating employee, the compensation expense that would have been recognised over the remainder of the vesting period is recognised immediately in profit or loss.

Post-employment benefits

Defined contribution plans

Contributions to defined contribution pension plans are charged to profit or loss in the period to which they relate.

Defined benefit plans

As described in note 25, the Group operates certain unfunded post-employment benefit plans in India.

We measure the benefit obligation on an actuarial basis using the projected unit credit method and this is discounted using a discount rate derived from high-quality corporate bonds with a similar duration as the benefit obligation.

We recognise the current service cost and interest on the benefit obligation in profit or loss. The current service cost represents the increase in the present value of the benefit obligation resulting from employee service in the period. Interest on the benefit obligation is determined by applying the discount rate to the benefit obligation, both as determined at the beginning of each year, but taking into account benefit payments during the period.

We recognise the effect of remeasurements of the benefit obligation in other comprehensive income. Remeasurements comprise actuarial gains and losses arising due to changes in actuarial assumptions and experience adjustments.

Income taxes

Tax on the profit or loss for the year comprises current and deferred tax. Tax is recognised in the profit and loss account except to the extent it relates to items recognised directly in equity or other comprehensive income, in which case it is recognised directly in equity or other comprehensive income.

Current tax is the amount of tax payable or recoverable in respect of the taxable profit or loss for the period. Taxable profit differs from accounting profit because it excludes income or expenses that are recognised in the period for accounting purposes but are either not taxable or not deductible for tax purposes or are taxable or deductible in earlier or subsequent periods. Current tax is calculated using tax rates and laws that have been enacted or substantively enacted at the balance sheet date.

Deferred tax is tax expected to be payable or recoverable on temporary differences between the carrying amount of an asset or liability in the financial statements and its tax base used in the computation of taxable profit. Deferred tax liabilities are generally recognised for all taxable temporary differences. Deferred tax assets are generally recognised for all deductible temporary differences to the extent that it is probable that taxable profits will be available in the future against which they can be utilised.

Deferred tax assets and liabilities are not recognised in respect of temporary differences arising from the initial recognition of goodwill or from the initial recognition of other assets or liabilities in a transaction that is not a business combination and, at the time of the transaction, affects neither accounting profit nor taxable profit and does not give rise to equal amounts of taxable and deductible temporary differences.

Deferred tax liabilities are recognised for taxable temporary differences associated with investments in subsidiaries, except where management is able to control the reversal of the temporary difference and it is probable that it will not reverse in the foreseeable future. Deferred tax assets and liabilities are measured using the tax rates that are expected to apply when the asset is realised or the liability is settled, based on tax rates and laws that have been enacted or substantively enacted at the balance sheet date.

Where there is uncertainty concerning the tax treatment of an item or group of items, the amount of current and deferred tax recognised is based on management's expectation of the likely outcome of the examination of the uncertain tax treatment by the relevant tax authorities. Uncertain tax treatments are reviewed regularly and current and deferred tax amounts are adjusted to reflect changes in facts and circumstances, such as the expiry of limitation periods for assessing tax, administrative guidance given by the tax authorities and court decisions.

Current tax assets and liabilities are offset when there is a legally enforceable right to set off the amounts and management intends to settle on a net basis. Deferred tax assets and liabilities are offset when there is a legally enforceable right to offset current tax assets and liabilities and the deferred tax assets and liabilities relate to income taxes levied by the same taxation authority on the same taxable entity.

Notes to the consolidated financial statements continued

FOR THE YEAR ENDED 31 DECEMBER 2023

2 Material accounting policies continued

Income taxes continued

Current tax and deferred tax is recognised in profit or loss unless it relates to an item that is recognised in the same or a different period outside profit or loss, in which case the related tax is also recognised outside profit or loss, either in other comprehensive income or directly in equity.

Payments by customers incorporated in certain tax jurisdictions may be subject to withholding tax. Where the country in which the sales invoice is raised has a tax treaty in place with the relevant tax jurisdiction, the tax withheld is treated as prepaid income tax and offset against current tax payable.

3 Critical judgements and key sources of estimation uncertainty

Critical judgements in applying the Group's accounting policies

Critical judgements are the judgements, apart from those involving estimates, that management has made in applying the Group's accounting policies that have had the most significant effect on the consolidated financial statements.

Revenue recognition – Identification of performance obligations

IP licensing

Hard IP products are typically delivered in multiple stages, referred to as IP views. Management considers that these deliveries are not distinct because each IP view is highly dependent on or interrelated with one or more of the other IP views.

Furthermore, management does not consider any NRE work required to configure the IP products to be distinct because customers would be unable to benefit from the IP views without configuration by Alphawave. In management's judgement, the delivery of IP views and the NRE work required to configure them represents a single performance obligation.

While the initial delivery of soft IP may not be to a customer's exact specification, they can use the IP without significant modification. In management's judgement, the initial delivery of soft IP is a separate performance obligation but any customisation work and subsequent IP deliveries are a single separate performance obligation because they are highly dependent or interrelated with each other.

In management's judgement, support services are a separate performance obligation from the delivery of IP products because customers could benefit from the services on their own or with other resources that are readily available to them.

Custom silicon

Custom silicon developments are typically complex and highly customised with detailed engineering schedules and deliverables.

While the various elements of the contracts are capable of being distinct, they are not distinct in the context of the contract because each delivery is highly dependent on or interrelated with one or more of the other goods or services in the contract and the nature of the obligation is to deliver a combined output in the form of a completed design or prototype. In management's judgement, therefore, a custom silicon development contract constitutes a single performance obligation.

Custom silicon contracts do not contain purchase volume commitments and therefore the supply of custom silicon products is not only capable of being distinct, but is distinct in the context of the contractual arrangements. In management's judgement, therefore, the supply of silicon following release to production is considered a separate performance obligation which arises on receipt of a silicon purchase order from the customer.

Cash-generating units

A cash-generating unit (CGU) is the smallest identifiable group of assets that generates cash inflows that are largely independent of the cash inflows from other assets or groups of assets. Identification of CGUs is important for determining the Group's operating segments and the level at which goodwill should be tested for impairment.

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 consists of a single CGU because there is no asset or group of assets within the business that generates cash inflows that are largely independent of the cash inflows from other assets or groups of assets. Consequently, the Group consists of a single operating segment and goodwill is tested for impairment at Group level based on the fair value less costs of disposal or value-in-use of the Group as a whole.

Capitalisation of product development costs

Product development costs are capitalised from the time when the technical feasibility and commercial viability of the product can be demonstrated. Management is therefore required to make judgements about the technical feasibility of the product based on engineering studies and the commercial viability of the product based on expectations concerning the marketability of the product, the product's useful life and the extent of future demand from customers. During 2023, the Group capitalised development costs totalling US\$54.5m (2022: US\$7.2m).

Capitalisation of borrowing costs

Borrowing costs are capitalised if they are directly attributable to the acquisition, construction or production of a qualifying asset, such as capitalised development costs. To the extent that the Group borrows funds generally and uses them for the purpose of obtaining a qualifying asset, the Group determines the amount of borrowing costs eligible for capitalisation by applying a capitalisation rate to the expenditures on that asset. Accordingly, the Group has capitalised eligible borrowing costs to capitalised development costs.

Accounting for WiseWave

Classification as a joint venture

The Group owns a 42.5% equity interest in WiseWave Technology Co Ltd ('WiseWave'), a company established in China to develop and sell silicon products incorporating silicon IP licensed from Alphawave.

Management was required to exercise judgement to determine whether WiseWave is an associate (an entity over which the Group has significant influence, but not control) or a joint arrangement (an arrangement in which the Group has joint control with one or more other parties). Joint control is the contractually agreed sharing of control of an arrangement, which exists only when decisions about activities that significantly affect the returns of the arrangement require the unanimous consent of the parties sharing control. Management determined that Alphawave has joint control and that WiseWave is therefore a joint arrangement.

Further judgement was required to assess whether Alphawave has rights to the joint arrangement's net assets (in which case it should be classified as a joint venture), or rights to and obligations for specific assets, liabilities, expenses and revenues (in which case it should be classified as a joint operation). Having considered relevant factors including the structure, legal form and contractual agreement governing the arrangement, management determined that WiseWave should be classified as a joint venture.

Share of losses in excess of interest in WiseWave

If the Group's share of losses of a joint venture equals or exceeds its interest in the joint venture, the Group discontinues recognising its share of further losses. If the Group's interest in a joint venture is reduced to nil, additional losses are provided for, and a liability recognised, only to the extent that the Group has incurred legal or constructive obligations or made payments on behalf of the joint venture. The Group's share of WiseWave's losses amount to US\$34.0m. The remaining amount recognised as share of loss is the elimination of unrealised profit on sales to WiseWave which is cumulatively US\$12.1m. As a result, the Group's interest in WiseWave has been reduced to nil (2022: US\$nil) and no provision has been recognised on the basis that the Group does not have a constructive obligation.

Unrealised profit on sales to WiseWave

IAS 28 Investments in Associates and Joint Ventures requires that unrealised profits and losses arising on transactions between the Group and a joint venture are recognised only to the extent of unrelated investors' interests in the joint venture. Accordingly, the Group's share of its profit on 'downstream' sales to WiseWave is eliminated to the extent that the related IP has not been utilised by WiseWave. IAS 28 is, however, unclear on how this elimination should be recognised in profit or loss. Management has used judgement in determining the Group's accounting policy of making the elimination against the Group's share of WiseWave's profit or loss rather than revenue arriving at the Group's operating profit or loss and correspondingly against its interest in the joint venture. IAS 28 is also unclear about the elimination of unrealised gains on downstream sales in excess of the Group's interest in a joint venture.

Essentially, there is an accounting policy choice either to recognise the excess as deferred income or not to recognise the excess at all. Management has used judgement in deciding not to recognise the excess on the basis that it is consistent with management's intention to exit the joint venture in the medium term. If unrealised gains on sales to WiseWave had been eliminated in full, the Group's loss before tax for the year ended 31 December 2023 would have been US\$12.5m larger (2022: profit before tax would have been US\$2.3m lower) and there would be cumulative deferred income of US\$14.1m at the end of 2023 (2022: US\$2.3m). In prior periods, the elimination of downstream sales was reflected within the Loss from joint venture category. However, an alternative approach could have been to recognise this as a reduction in revenue. Consequently, an amount of US\$12.5m could have been allocated to either revenue or loss from joint venture.

Recoverability of contract asset with WiseWave

At the end of 2023, the Group had completed its performance obligations under the subscription licence agreement with WiseWave relating to the provision of IP products to the library of IP. A significant proportion of the consideration due under the subscription licence agreement will be invoiced and collected over the remainder of the term of the contract and, as a result, a contract asset of US\$42.4m has been recognised against the contract.

Management have considered the recoverability of this contract asset in the context of WiseWave's historic pattern of settlements of accounts receivable with the Group, the anticipated short- and medium-term funding requirements of WiseWave and their prospects of securing such additional funding and actions available to Alphawave in the event of non-payment by WiseWave of the future billing milestones. Taking the above factors into account, management have judged that the contract asset with WiseWave is recoverable and therefore no provision in excess of that determined by reference to the Group's expected credit loss policy has been made against the contract asset. Had we judged that the contract asset was not recoverable, contract assets would have been up to US\$42.4m lower and the Group's loss before tax would have been up to US\$42.4m lower as at and for the year ended 31 December 2023.

Uncertain tax treatments

Uncertainty may exist concerning the tax treatment of a specific item or group of items because of, for example, uncertainty as to the meaning of tax law or to the applicability of tax law to a particular transaction or circumstance, the determination of appropriate arm's length pricing in accordance with OECD transfer pricing principles or because the amount of current and deferred tax depends on the results of an ongoing or future examination of previously filed tax returns by the tax authorities. Where such an uncertainty exists, management is required to exercise judgement in forming its expectation of the likely outcome of the examination of the uncertain tax treatment by the relevant tax authorities. Due to the complexity of tax laws and their interpretation, the amount ultimately agreed with the tax authorities may differ materially from the amount of current and deferred tax recognised in the consolidated financial statements.

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FOR THE YEAR ENDED 31 DECEMBER 2023

3 Critical judgements and key sources of estimation uncertainty continued

Key sources of estimation uncertainty

Key sources of estimation uncertainty are those that have a significant risk of causing a material adjustment to the carrying amounts of assets and liabilities within the next financial year.

Revenue recognition – Percentage of completion

We recognise revenue from contracts for the provision of hard IP, customisation services and custom silicon development projects over time by reference to the stage of completion of the respective performance obligations. For hard IP and related customisation, we measure the stage of completion based on engineering hours spent on work performed to date as a percentage of the estimated total project hours. For custom silicon development projects, we measure the stage of completion based on actual cost incurred to date as a percentage of the estimated total project cost, where cost includes both external costs, such as bought-in IP and manufacturing mask sets and internal costs. Management is required to make estimates of the attributable cost per engineering hour for internal costs in custom silicon development projects and the number of hours required to complete the project in both IP delivery and customisation engagements and custom silicon development projects. These estimates vary depending on factors including the contract type, customer specifications, the maturity of the IP being licensed, the complexity of the silicon being developed, whether the IP has already been proven for integration in silicon products and whether the contract deliverables are in their early or later stages.

During 2023, we recognised revenue totalling US\$171.8m by reference to the stage of completion of projects. At the end of 2023, the carrying amount of related contract assets and contract liabilities was US\$69.0m (2022: US\$58.5m) and US\$55.2m (2022: US\$96.9m) respectively. If the estimated number of hours, or the estimated external costs required to complete these projects was to change significantly, there could be a material adjustment to the cumulative revenue recognised and the carrying amount of contract balances during the next financial year.

Revenue recognition – Licensing agreement with joint venture

We have a subscription licence agreement that provides WiseWave with right of use over a library of our IP products for a fixed fee spread over a period of five years ending in 2026.

As explained in note 2, management estimates the total number of IP products that it expects will be provided into the library in order to calculate the estimated unit price of the IP products. Moreover, since the estimated unit price of the IP products constitutes variable consideration, management is required to exercise judgement in applying constraints to the unit price in order to minimise the risk of significant reversals of revenue in future periods. Revenue on this agreement is recognised at a point in time when an IP product is added to the library, as this is when control of the IP product is transferred to WiseWave.

During 2023, the Group recognised revenue of US\$49.6m (2022: US\$31.1m) from the subscription licence agreement, following delivery of all remaining IP products under the agreement to the library during the year. At the end of 2023, the cumulative amount of revenue recognised from the agreement amounted to US\$108.4m. All IP products have now been delivered to the library and management have judged that there will be no further IP products provided. Based on this judgement, we no longer consider there to be any estimation uncertainty associated with the subscription licence agreement. The remaining revenue of US\$0.6m to be recognised under this agreement relates to the provision of support services and associated revenue is recognised over time on a straight-line basis as it represents a stand-ready obligation.

Recoverability of trade receivables and contract assets

We recognise an allowance for credit losses in respect of trade receivables and contract assets measured as the amount of the lifetime expected credit losses estimated using a provision matrix based on the Group's historical credit loss experience, adjusted for factors that are specific to the customers, and general current and forecasted economic conditions.

As at 31 December 2023, the Group's allowance for expected credit losses was US\$3.0m on trade receivables and contract assets totalling US\$5.1m. If the amount of actual credit losses differs significantly from the lifetime expected credit losses, there could be a material impact on the Group's results within the next financial year.

Climate change

In preparing the consolidated financial statements, the Directors have considered the impact of climate change on the Group and have concluded there is no material impact on financial reporting judgements and estimates. This is consistent with the assertion that risks associated with climate change did not affect the business, its strategy and its financial performance in 2023, and are not expected to have a material impact on the longer-term viability of the Group.

4 Revenue

Disaggregation of revenue

The Group has disaggregated revenue into various categories in the following tables which is intended to depict how the nature, amount, timing and uncertainty of revenue and cash flows are affected by economic factors.

	Year ended 31 December	
	2023 US\$'000	2022 US\$'000
Revenue by type:		
IP and NRE	100,676	76,123
IP and NRE – Reseller	–	3,270
IP and NRE – JV	66,891	58,207
Silicon and royalties	154,157	47,806
	321,724	185,406

'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 in late 2021. '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. '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, we have separately itemised the revenue from our reseller and joint venture, both based in China. The revenue from our joint venture in China, WiseWave, predominantly relates to a five-year subscription licence agreement where we have recognised US\$49.6m (2022: US\$31.1m) based on our deliveries of IP to WiseWave. The remaining revenue from WiseWave relates to a separate agreement signed in Q4 2021 to deliver chiplet IP and revenue recognised through WiseWave acting as master reseller of IP to VeriSilicon.

All revenue from VeriSilicon and related balances are in respect of transactions signed with VeriSilicon as reseller prior to the VeriSilicon reseller agreement moving under WiseWave as master reseller effective from November 2021. All revenue and associated balances in respect of transactions signed with VeriSilicon since that date are now recognised through the WiseWave joint venture line.

	Year ended 31 December	
	2023 US\$'000	2022 US\$'000
Revenue by region:		
North America	82,160	51,361
China	190,376	104,755
APAC (ex-China)	33,459	16,980
EMEA	15,729	12,310
	321,724	185,406

Revenues from customers which comprise greater than 10% of the Group's total revenues are as follows:

	Year ended 31 December	
	2023 US\$'000	2022 US\$'000
China based customer	78,226	34,538
China based customer	66,891	58,207

US\$117.9m (37% of total revenues) (2022: US\$90.7m, 49%) represent revenues recognised over time. Of the US\$117.9m revenue recognised over time, US\$66.0m is subject to estimation uncertainty. US\$8.2m of contract assets and US\$35.3m 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 subject to estimation uncertainty in 2023. If our estimates of total hours or total costs had been 10% higher, these revenues would be US\$59.4m, contract assets would be US\$7.4m and contract liabilities would be US\$38.8m. If our estimates of total hours or total costs had been 10% lower, these revenues would be US\$72.6m, contract assets would be US\$9.0m and contract liabilities would be US\$31.8m.

US\$203.8m (63% of total revenues) (2022: US\$94.7m, 51%) 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. Revenues from our five-year subscription licence agreement with WiseWave are also recognised at a point in time, based on the number of IP uploads during the period. Revenues from the three-year reseller agreement with VeriSilicon, which was moved under WiseWave in late 2021, are recognised at a point in time to the extent that they represent exclusivity fees paid during the period not credited against IP licences. In addition, a limited amount of revenue from our soft IP products is recognised at a point in time.

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. As described in note 3, the performance obligations relating to the provision of IP products to the library of IP have been completed as at the end of 2023 and the only remaining revenue to be recognised under the subscription licence agreement relates to the provision of support services. The subscription licence agreement has a term of five years ending in 2026 and the subscription licence fees paid by WiseWave are invoiced and collected regularly throughout the term. As all IP licence revenue has now been recognised, a contract asset of US\$42.4m has been recognised against the contract (2022: US\$16.8m).

Notes to the consolidated financial statements continued

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4 Revenue continued

Contract assets and liabilities

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

	Year ended 31 December	
	2023 US\$'000	Restated ¹ 2022 US\$'000
At the beginning of the year	58,534	31,719
Acquisition of subsidiaries	—	2,714
Revenue accrued in the period	61,182	56,231
Accrued revenue invoiced in the period	(50,681)	(31,983)
Expected credit loss	(3,862)	(1,547)
Currency translation differences	—	(147)
At the end of the year	65,173	56,987

1. Restated to allocate the expected credit loss allowance between trade receivables from contracts with customers and contract assets.

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

	Year ended 31 December	
	2023 US\$'000	2022 US\$'000
At the beginning of the year	91,733	12,661
Acquisition of subsidiaries	—	41,361
Revenue recognised in the period	(90,346)	(38,959)
Revenue deferred in the period	48,743	76,205
Currency translation differences	(24)	465
At the end of the year	50,106	91,733

The deferred revenue balance is all expected to be satisfied within twelve months of the balance sheet date.

The flexible spending account, which is included with contract liabilities on the face of the balance sheet, has increased to US\$5.9m as at 31 December 2023 from US\$5.2m as at 31 December 2022. This represents a type of deferred income, and 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:

	Year ended 31 December	
	2023 US\$'000	2022 US\$'000
Capitalised contract costs	1,920	874

The costs to obtain contracts from customers include commissions. Amortisation of US\$1.9m (2022: US\$2.9m) and impairment of US\$nil (2022: US\$nil) was charged to the profit or loss in the period.

5 Research and development expenses

Research and development expenses presented in profit or loss were derived as follows:

	Year ended 31 December	
	2023 US\$'000	2022 US\$'000
Research and development costs incurred	131,441	78,011
Research and development expenditure credits	(6,999)	(5,198)
Development costs capitalised ¹	(46,226)	(3,455)
Total	78,216	69,358

1. The amount of US\$46.2m capitalised in 2023 includes US\$4.4m that has been capitalised in property and equipment.

6 Other operating (expense)/income

Other operating (expense)/income items were as follows:

	Year ended 31 December	
	2023 US\$'000	2022 ¹ US\$'000
Acquisition-related costs	(831)	(12,712)
Compensation element of Banias Labs deferred cash rights (note 30)	(8,352)	(1,703)
Remeasurement of contingent consideration payable for Precise-ITC (note 30)	—	(4,260)
Share-based compensation expense (note 27)	(40,691)	(15,695)
Currency translation (loss)/gain	(2,983)	36,838
Other operating (expense)/income	(52,857)	2,468

1. There has been a change to the grouping of operating expenses in 2022, specifically relating to the compensation element of Banias deferred cash rights. This is shown within other operating expenses/(income) in 2023 so we have changed 2022 operating expenses/(income) to be presented on the same basis (see consolidated statement of comprehensive income and note 30).

Notes to the consolidated financial statements continued

FOR THE YEAR ENDED 31 DECEMBER 2023

7 Employee benefit costs

Employee benefit costs incurred (before deducting R&D expenditure credits and including costs that were subsequently capitalised) were as follows:

	Year ended 31 December	
	2023 US\$'000	2022 US\$'000
Wages and salaries	84,784	45,301
Social security costs	2,033	3,959
Defined contribution pension costs	4,115	1,300
Share-based compensation expense	40,691	15,695
Total	131,623	66,255

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

	Year ended 31 December	
	2023 Number	2022 Number
Research and development/engineering	675	321
General and administration	55	29
Sales and marketing	28	11
Total	758	361

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

	Year ended 31 December	
	2023 Number	2022 Number
Research and development/engineering	741	621
General and administration	58	57
Sales and marketing	30	17
Total	829	695

8 Auditor's remuneration

The Group incurred the following amount to its auditor in respect of the audit of the Group's financial statements and for other non-audit services provided to the Group.

	Year ended 31 December	
	2023 US\$'000	2022 US\$'000
Audit of the financial statements	3,472	1,713
Audit-related assurance services	268	124
	3,740	1,837

An amount of US\$1,078,000 included in the 2023 cost of the 'audit of the financial statements' row relates to additional work in respect of the 2022 audit.

9 Finance income and expense

	Year ended 31 December	
	2023 US\$'000	2022 US\$'000
Finance income		
Interest income from contracts with customers containing significant financing components	275	235
Interest on bank deposits	3,173	1,449
	3,448	1,684
Finance expense		
Bank charges	(65)	–
Lease interest	(1,581)	(391)
Term loan interest	(16,489)	(3,134)
Term loan interest capitalised to the balance sheet	9,534	–
NPV interest	–	(27)
Interest under IAS 19	(61)	–
I/A interest	(174)	(36)
	(8,836)	(3,588)
Net finance expense	(5,388)	(1,904)

Notes to the consolidated financial statements continued

FOR THE YEAR ENDED 31 DECEMBER 2023

10 Income taxes

Income tax recognised in profit or loss

The components of the Group's income tax expense for the year were as follows:

	Year ended 31 December	
	2023 US\$'000	2022 US\$'000
Current tax		
UK corporation tax	(2,642)	5,792
Adjustments to prior periods	3,167	(516)
Overseas tax	126	13,330
Total current tax	651	18,606
Deferred tax		
Origination and reversal of timing differences	10,881	(278)
Total deferred tax	10,881	(278)
Income tax expense	11,532	18,328

Factors affecting the income tax expense for the year

Tax on the profit or loss for the year comprises current and deferred tax. Tax is recognised in the profit and loss account except to the extent that it relates to items recognised directly in equity or other comprehensive income, in which case it is recognised directly in equity or other comprehensive income. For income tax arising on dividends, the related tax is recognised in the income statement, statement of other comprehensive income, or in equity consistently with the transactions that generated the distributable profits. The Company has determined that the global minimum top-up tax – which is required to pay under Pillar Two legislation – is an income tax in the scope of IAS 12. The Company has applied a temporary mandatory relief from deferred tax accounting for the impacts of the top-up tax and accounts for it as a current tax when it is incurred.

The Group's income tax expense differed from the amount that would have resulted from applying the standard rate of UK corporation tax to the Group's profit before income taxes for the following reasons:

	Year ended 31 December	
	2023 US\$'000	2022 US\$'000
(Loss)/profit before tax	(39,470)	17,242
(Loss)/profit before tax at the UK corporation tax rate of 23.52% (2022: 19%)	(9,283)	3,275
Effects of:		
Share-based compensation	7,267	3,141
Expenses not deductible for tax purposes	3,171	1,964
Under/(over) accrual of prior year provision	3,167	(516)
Different tax rates applied in overseas jurisdictions	667	3,469
Share of joint venture's loss	3,465	3,511
Movement in unrecognised deferred tax assets	2,146	3,281
Other tax items	932	203
Income tax expense	11,532	18,328

Factors affecting the income tax expense in future years

A blended UK corporation tax rate of 23.52% is used for 31 December 2023 due to the change in the UK corporation tax rate to 25% from 1 April 2023, from the previously enacted 19%, announced at the Budget on 3 March 2021, and substantively enacted on 24 May 2021. The deferred taxation balances have been measured using the rates expected to apply in the reporting periods when the timing differences reverse.

There have been no legislative changes announced in 2023 in relation to Canadian or US tax rates which will affect the Group.

Deferred tax

The movement on the deferred tax account is as shown below:

	Year ended 31 December	
	2023 US\$'000	Restated ¹ 2022 US\$'000
At the beginning of the year	11,110	422
Purchase of businesses	–	15,234
Charge/(credit) to profit or loss	10,881	(278)
(Credit) to OCI	(409)	–
Transfer of tax credits	–	(4,350)
Currency translation differences	(2)	82
Other	(721)	–
At the end of the year	20,859	11,110

1. Restated to reflect the purchase price allocation on the acquisition of Open Five (see note 30).

The deferred tax account is made up as follows:

	Year ended 31 December	
	2023 US\$'000	Restated ¹ 2022 US\$'000
Accelerated capital allowances	5,720	676
Leases	(334)	(65)
Intangibles	22,429	26,947
Non-capital loss	(7,193)	(13,613)
Transfer of tax credits	–	(4,350)
Other temporary differences	237	1,515
Total	20,859	11,110

1. Restated to reflect the purchase price allocation on the acquisition of Open Five (see note 30).

The deferred tax account is in a net liability position, all positive numbers indicate an increase in the deferred tax liability.

As at 31 December 2023, the Group has a deferred tax asset of US\$12.1m (2022 restated: US\$2.7m) and a deferred tax liability of US\$32.9m (2022 restated: US\$13.8m). Where we have recognised a deferred tax asset and a deferred tax liability in the same taxation jurisdiction, these have been netted off, resulting in a deferred tax asset of US\$12.1m (2022 restated: US\$2.7m) and a deferred tax liability of US\$32.9m (2022 restated: US\$13.8m) in the consolidated statement of financial position.

The Group has unrecognised deductible temporary differences of US\$126.7m. This is primarily made up of US Federal losses (US\$30.5m), US State losses (US\$45.8m) and Stock based compensation (US\$24.2m). The Group has not recognised the deductible temporary differences due to the lack of historical and future profitability. The Group has recognised deferred tax assets in entities that have suffered losses in the current year. The evidence relied upon to record the deferred tax assets relates to reversing taxable temporary differences and the entities which had deferred tax assets are expected to be profitable in the future.

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11 Earnings/(loss) per share

Basic earnings/(loss) per share is calculated by dividing net income/(loss) for the period by the weighted average number of ordinary shares in issue during the period.

Diluted earnings/(loss) per share is calculated after adjusting the weighted average number of ordinary shares used in the calculation of basic earnings/(loss) per share to include the weighted average number of ordinary shares that would be issued on conversion of all dilutive potential ordinary shares. Potential ordinary shares comprise share options and RSUs outstanding under the Company's share-based compensation plans.

(US\$ thousands except number of shares)	Year ended 31 December	
	2023	2022
Numerator:		
Net (loss) for the year	(51,002)	(1,086)
Denominator:		
Weighted average number of ordinary shares for basic earnings/(loss) per share	705,550,299	679,849,437
Adjustment for dilutive share options and RSUs	–	–
Weighted average number of ordinary shares for diluted earnings/(loss) per share	705,550,299	679,849,437
Basic earnings/(loss) per share (US\$ cents)	(7.23)	(0.16)
Diluted earnings/(loss) per share (US\$ cents)	(7.23)	(0.16)

Potential ordinary shares are not treated as dilutive if their conversion to ordinary shares would decrease a loss per share from continuing operations. Consequently, in both 2023 and 2022, basic loss per share and diluted loss per share were the same.

12 Goodwill

	Year ended 31 December	
	2023 US\$'000	Restated ¹ 2022 US\$'000
Carrying amount		
At the beginning of the year	309,199	–
Acquisition of subsidiaries	–	331,886
Finalisation of OpenFive PPA	–	(12,437)
Increase in consideration for S338 election	–	5,610
Reversal of deferred tax liability	–	(15,860)
At the end of the year	309,199	309,199

1. Restated to reflect the purchase price allocation on the acquisition of Open Five (see below and see note 30).

Goodwill is denominated in US dollars and therefore there are no currency translation differences.

The 2022 goodwill figure has been restated for the finalisation of the OpenFive purchase price allocation resulting in a reduction in goodwill of US\$12,437,000 and recognition of a receivable of US\$12,437,000. The 2022 goodwill figure has further been restated for the increase in consideration from the S338 election where we increased goodwill by US\$5,610,000 and reduced the investment in Alphawave Semi Inc. (formerly Open-Silicon Inc.) by US\$5,610,000 and the reversal of a deferred tax liability where we reduced goodwill by US\$15,860,000 and reduced the deferred tax liability by US\$15,860,000. More information is available in note 30. All these adjustments are reflected in the restated 31 December 2022 balance sheet.

Goodwill is tested for impairment annually and whenever there is an indication that it may be impaired. Goodwill is tested for impairment 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 or own products. Given this interdependence of the Group's operations, management considers that the Group's business 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 the cash inflows generated by other assets or groups of assets. Consequently, management has not allocated goodwill below Group level. Goodwill is therefore tested for impairment at Group level based on the fair value less costs of disposal or value-in-use of the Group as a whole.

In 2023, the Group's fair value less costs of disposal was higher than its carrying amount and therefore we concluded that no impairment of goodwill was required. Management considers that the Group comprises a single CGU and therefore goodwill is tested for impairment at the level of this single CGU, i.e. at Group level. The Company's shares are listed on the London Stock Exchange and its market capitalisation is therefore the most reliable measure of fair value (a 'Level 1' fair value). To test goodwill for impairment, we used the Company's market capitalisation as at 29 December 2023 (the last trading day of 2023) less assumed costs of disposal of 3%.

In 2022, we measured the Group's recoverable amount on a value-in-use basis. Value-in-use represents the present value of the projected future cash flows for the next five years based on the most recent budget and forecasts approved by management. Cash flow projections for a further five years are extrapolated based on revenue growth rates trending down to the perpetuity growth rate, and beyond this ten-year period cash flow projections have been estimated by applying a perpetuity growth rate to the forecast cash flows in the tenth year.

We consider that the key assumptions used in determining value-in-use are the expected growth in each of the Group's revenue streams, the expected gross margins for these revenue streams, our operating and capital expenditure, the perpetuity growth rate and the discount rate.

Expected future revenue is based on external forecasts of the future demand in each of our revenue streams adjusted to reflect specific factors such as our customer base, estimated market share and available distribution channels, the possibility of new entrants to the market and future technological developments. Cash flows during the five-year budget and forecast period also reflect the cost of materials and other direct costs, research and development expenditure and selling, general and administrative expenses. We estimated future revenue on current prices and market expectations of future price changes and future costs based on past experience and current prices and market expectations of future price changes, including the impact of inflation across the regions in which we operate.

We applied a perpetuity rate of 2% per annum which we consider to be a reasonable estimate of the average long-term growth rate in the markets for our products.

We calculated the value-in-use by applying a nominal discount rate to the expected post-tax cash flows that was determined using a capital asset pricing model and reflected current market interest rates, relevant equity and size risk premiums and specific risks. The equivalent pre-tax discount rate used was 13.4%.

A sensitivity analysis was performed on the single Group CGU, using reasonably possible changes in revenue growth rates, forecast cash flows and pre-tax discount rates and management concluded that no reasonably possible change in any of the key assumptions would result in the carrying value of the single Group CGU exceeding its recoverable amount.

We did not recognise any goodwill impairment during 2022 and the Group's recoverable amount was comfortably in excess of its carrying amount for the purpose of impairment tests.

Notes to the consolidated financial statements continued

FOR THE YEAR ENDED 31 DECEMBER 2023

13 Other intangible assets

	Developed IP US\$'000	Developed technology US\$'000	Customer relationships US\$'000	RISC-V licences US\$'000	Other intangibles US\$'000	Total US\$'000
Cost						
As at 1 January 2022	1,167	—	—	—	—	1,167
Acquisition of subsidiaries (note 30)	38,887	83,900	25,700	5,200	386	154,073
Additions	4,343	4,255	—	—	3,747	12,345
Currency translation differences	(49)	—	—	—	—	(49)
As at 31 December 2022	44,348	88,155	25,700	5,200	4,133	167,536
Additions	—	54,539	—	—	1,825	56,364
Re-classify to property and equipment	(1,162)	—	—	—	—	(1,162)
Re-classification of intangibles	—	2,947	—	—	(2,947)	—
Currency translation differences	—	—	—	—	—	—
As at 31 December 2023	43,186	145,641	25,700	5,200	3,011	222,738
Accumulated amortisation						
As at 1 January 2022	—	—	—	—	—	—
Amortisation charge for the year	4,730	—	714	347	368	6,159
Currency translation differences	(29)	—	—	—	—	(29)
As at 31 December 2022	4,701	—	714	347	368	6,130
Amortisation charge for the year	10,112	—	2,142	1,040	—	13,294
Currency translation differences	—	—	—	—	—	—
As at 31 December 2023	14,813	—	2,856	1,387	368	19,424
Carrying amount						
As at 31 December 2022	39,647	88,155	24,986	4,853	3,765	161,406
As at 31 December 2023	28,373	146,441	22,844	3,813	1,843	203,314

Developed technology consists of intangible assets that are still under development and are not yet available for use. The US\$54.5m additions to developed technology is mainly made up of capitalised labour and contractor costs in the amount of US\$41.8m (note 5) and term loan interest of US\$9.5m that has been capitalised (note 9).

The acquired intangibles within the developed IP category are amortised over four years.

14 Property and equipment – owned

	Computer equipment US\$'000	Furniture and fixtures US\$'000	Leasehold improvements US\$'000	Laboratory equipment US\$'000	Total US\$'000
Cost					
As at 1 January 2022	2,088	62	404	–	2,554
On acquisition of subsidiaries	913	111	264	1,279	2,567
Additions	10,128	286	1,261	93	11,768
Currency translation differences	(5)	(1)	(6)	–	(12)
As at 31 December 2022	13,124	458	1,923	1,372	16,877
Acquisition of subsidiaries	–	–	–	–	–
Additions	8,488	824	2,349	6,907	18,568
Re-classify from intangible assets	–	–	–	1,162	1,162
Currency translation differences	–	–	–	–	–
As at 31 December 2023	21,612	1,282	4,272	9,441	36,607
Accumulated depreciation					
As at 1 January 2022	766	31	131	–	928
Depreciation charge for the year	1,886	58	456	72	2,472
Currency translation differences	16	9	31	–	56
As at 31 December 2022	2,668	98	618	72	3,456
Depreciation charge for the year	8,921	259	810	1,222	11,212
Depreciation charged to the P&L then capitalised	–	–	–	1,285	1,285
Currency translation differences	–	–	–	–	–
As at 31 December 2023	11,589	357	1,428	2,579	15,953
Carrying amount					
As at 31 December 2022	10,456	360	1,305	1,300	13,421
As at 31 December 2023	10,023	925	2,844	6,862	20,654

Laboratory equipment includes additions of US\$5.6m of test chips used for R&D projects that are not yet being depreciated.

15 Property and equipment – leased

Nature of leasing activities (as lessee)

The Group leases all of its product development and office facilities in the various countries in which it operates. Property leases that have been entered into by the Group contain varied terms and conditions reflecting its business requirements and local market practices. Property leases are typically for a fixed term of approximately five years but may include extension or early termination options to provide the Group with operational flexibility. Property rentals are typically fixed on inception of the lease but may be subject to review during the lease term to reflect changes in market rental rates.

The Group also leases office and other equipment.

Notes to the consolidated financial statements continued

FOR THE YEAR ENDED 31 DECEMBER 2023

15 Property and equipment – leased continued

Right-of-use assets

Movements on right-of-use assets recognised in relation to leased property and equipment were as follows:

	Buildings US\$'000	Equipment US\$'000	Total US\$'000
Cost			
As at 1 January 2022	8,460	2,579	11,039
Acquisition of subsidiaries	2,786	–	2,786
Additions	4,308	3,023	7,331
Currency translation differences	(248)	(104)	(352)
As at 31 December 2022	15,306	5,498	20,804
Additions	5,265	608	5,873
Disposals	(551)	–	(551)
Currency translation differences	(3)	–	(3)
As at 31 December 2023	20,017	6,106	26,123
Accumulated depreciation			
As at 1 January 2022	1,852	1,515	3,367
Depreciation charge for the year	1,706	1,330	3,036
Currency translation differences	(90)	(62)	(152)
As at 31 December 2022	3,468	2,783	6,251
Depreciation charge for the year	3,006	1,606	4,612
Disposals	–	–	–
Currency translation differences	(2)	–	(2)
As at 31 December 2023	6,472	4,389	10,861
Carrying amount			
As at 31 December 2022	11,838	2,715	14,553
As at 31 December 2023	13,545	1,717	15,262

Lease liabilities

Movements on the lease liabilities recognised in relation to leased property and equipment were as follows:

	US\$'000
As at 1 January 2022	7,828
Acquisition of subsidiaries	2,616
Additions	7,196
Interest expense	391
Lease payments	(3,038)
Currency translation differences	(60)
As at 31 December 2022	14,933
Additions	5,385
Disposals	—
Interest expense	1,581
Lease payments	(4,740)
Currency translation differences	(479)
As at 31 December 2023	16,680

Lease liabilities were presented in the balance sheet as follows:

	As at 31 December	
	2023 US\$'000	2022 US\$'000
Current	3,953	3,756
Non-current	12,727	11,177
Total lease liabilities	16,680	14,933

Expenses recognised in relation to lease payments that were not included in the measurement of lease liabilities were as follows:

	As at 31 December	
	2023 US\$'000	2022 US\$'000
Expense relating to short-term leases and low-value lease expense	716	1,769
Expense relating to variable lease payments not included in lease liabilities	—	19
	716	1,788

Cash outflow on lease payments

The total cash outflow on lease payments was as follows:

	Year ended 31 December	
	2023 US\$'000	2022 US\$'000
Cash flow from financing activities		
Lease payments included in lease liabilities	4,740	3,038
Cash flow from operating activities		
Variable lease payments not included in lease liabilities	—	19
Lease payments on short-term leases and leases of low-value assets	716	1,769
Total cash outflow on lease payments	5,456	4,826

Notes to the consolidated financial statements continued

FOR THE YEAR ENDED 31 DECEMBER 2023

16 Investment in joint venture

As at 31 December 2023, 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.

Movements in the carrying amount of the Group's investment in WiseWave were as follows:

	US\$'000
Carrying amount	
As at 1 January 2022	9,421
Additional investment	9,060
Loss from joint venture	(18,481)
As at 31 December 2022	–
Additional investment	14,730
Loss from joint venture	(14,730)
As at 31 December 2023	–

During 2023 and 2022, the Group and the other shareholders in WiseWave increased their investment by subscribing for new ordinary shares in proportion to their existing ownership interests.

As at 31 December 2023, the cumulative amount of the Group's share of WiseWave's losses amounts to US\$34.0m. The remaining amount recognised as share of loss is the elimination of unrealised profit on sales to WiseWave which is cumulatively US\$12.1m. As a result, the Group's interest in WiseWave has been reduced to nil and no provision has been recognised for the excess of the Group's share of WiseWave's losses over the carrying amount of the investment on the basis that the Group does not have a constructive obligation. As at 31 December 2022, the cumulative amount of the Group's share of WiseWave's losses was not greater than the carrying amount of the investment and therefore, in accordance with the Group's accounting policy, the elimination of gains from sales to WiseWave was recognised only to the extent of reducing the carrying amount of the investment to nil.

During 2023, the Group recognised revenue of US\$49.6m (2022: US\$31.1m) on delivery of IP licences under the subscription licence agreement with WiseWave. In accordance with the Group's accounting policy, to the extent that WiseWave has not yet utilised the IP, we have eliminated the Group's share of its profit on the licences. Such elimination is made against the carrying amount of the investment in WiseWave, but only insofar as it is reduced to nil. As at 31 December 2023, the cumulative amount of profit so eliminated was nil (2022: US\$2.4m). This is due to the cumulative share of loss in itself already reducing the investment to nil, which was not the case at 31 December 2022. We still expect that the profit eliminated to date will be recognised during the remainder of the five-year subscription licence agreement ending in 2026.

The following tables summarise financial information of WiseWave taken from its own financial statements and adjusted in accordance with the Group's accounting policies:

	As at 31 December	
	2023 US\$'000	2022 US\$'000
Current assets	23,766	18,536
Property and equipment	5,043	1,908
Intangible assets	53,774	71,331
Other non-current assets	2,176	4,883
Current liabilities	34,411	27,351
Non-current liabilities	24,588	42,317
Included in the above amounts are:		
Cash and cash equivalents	13,700	15,729
Current financial liabilities (excluding trade payables)	–	–
Non-current financial liabilities (excluding trade payables)	–	–
Net assets (100%)	25,759	26,990
Group share of net assets (42.5%)	10,948	11,471
Share of losses of joint venture recognised as a liability	–	–
Share of unrealised profits on IP licences to joint venture not recognised	11,910	2,344
Carrying amount of liability in joint venture	–	–

	As at 31 December	
	2023 US\$'000	2022 US\$'000
Revenue	19,826	5,517
Loss from continuing operations	(35,930)	(37,764)
<i>Included in loss from continuing operations are:</i>		
<i>Depreciation and amortisation</i>	(20,730)	(18,267)
<i>Interest expense</i>	(2,171)	(2,936)
Other comprehensive income	–	–
Total comprehensive expense (100%)	(35,930)	(37,764)
Group share of total comprehensive expense (42.5%)	(15,270)	(16,050)
Reversal/(recognition) of share of unrealised profits on IP licences to joint venture	540	(2,431)
Loss from joint venture	(14,730)	(18,481)

17 Cash and cash equivalents

	As at 31 December	
	2023 US\$'000	2022 US\$'000
Cash at bank and in hand	101,291	186,231

18 Trade and other receivables

	As at 31 December	
	2023 US\$'000	Restated ¹ 2022 US\$'000
Current		
Trade receivables from contracts with customers	49,214	16,455
Less: Allowance for expected credit losses	(5,635)	(637)
Trade receivables – net	43,579	15,818
Restricted cash	17,843	18,295
Other receivables	16,667	13,030
Total current	78,089	47,143
Non-current		
Restricted cash	6,392	18,793
Other receivables	–	479
Total non-current	6,392	19,272
Total trade and other receivables	84,481	66,415

1. Restated to reflect the finalisation of the purchase price allocation for the acquisition of OpenFive (notes 12 and 30) and to allocate the expected credit loss allowance between trade receivables from contracts with customers and contract assets.

Prepayments and capitalised contract costs are shown within note 20.

Restricted cash comprises amounts held by third-party paying agents in respect of deferred consideration and future compensation amounts payable to employees of Precise ITC and Banias Labs conditional on their remaining in the Group's employment during the respective vesting periods, the last of which expires during 2026. Cash held by the paying agent in relation to amounts that are forfeited by the employees will be returned to the Company.

Notes to the consolidated financial statements continued

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19 Inventories

	As at 31 December	
	2023 US\$'000	2022 US\$'000
Finished goods	4,248	3,616
Work in progress	5,737	10,413
Raw materials	1,637	4,032
Total inventories	11,622	18,061

During 2023, an expense of US\$0.6m (2022: US\$0.5m) was recognised in respect of the write-down of inventories to net realisable value.

20 Other assets

	As at 31 December	
	2023 US\$'000	2022 US\$'000
Current		
Prepayments	17,094	70,601
Capitalised contract costs	1,923	874
Total other assets	19,017	71,475

Prepayments include advance payments to foundries to reserve manufacturing capacity of US\$5.1m (2022: US\$50.9m) that are largely covered by advance receipts from customers.

21 Trade and other payables

	As at 31 December	
	2023 US\$'000	Restated ¹ 2022 US\$'000
Current		
Trade payables	18,098	23,573
Accrued expenses	33,553	34,322
Social security and other taxes	195	1,204
Contingent consideration	–	5,000
Other payables	17,439	24,566
Total current	69,285	88,665
Non-current		
Other payables	1,775	10,555
Total non-current	1,775	10,555
Total trade and other payables	71,060	99,220

1. Restated to reflect the finalisation of the purchase price allocation for the acquisition of OpenFive (notes 12 and 30).

Other payables include US\$10.4m (2022: US\$10.5m) deferred consideration and compensation payable to employees of Baniyas Labs. US\$5.5m (2022: US\$5.5m) relates to an NRE project that has been put on hold due to the ongoing war in Ukraine. US\$2.6m (2022: US\$2.6m) relates to a prepayment from a customer where a project has been cancelled and this will be refunded in 2024.

22 Loans and borrowings

	As at 31 December	
	2023 US\$'000	2022 US\$'000
Current		
Term Loan	5,625	5,000
Non-current		
Revolving Credit Facility	125,000	110,000
Term Loan	88,125	93,750
Israel Innovation Authority	1,625	1,451
Total loans and borrowings	220,375	210,201

In October 2022, the Group entered into a Credit Agreement with a syndicate of banks that provided it with a US dollar-denominated Delayed Draw Term Loan B ('Term Loan') facility of US\$100.0m and a multi-currency Revolving Credit Facility (RCF) of US\$125.0m.

In October 2022, the Group drew the Term Loan facility in full and US\$110.0m from the RCF in connection with the acquisition of Baniyas Labs. The Group drew the remaining US\$15.0m of the RCF in May 2023.

Both the Term Loan facility and the RCF mature in October 2027. We are required to repay a percentage of the principal amount of the Term Loan outstanding at the end of each calendar quarter prior to maturity. We repaid the first instalment of US\$1,250,000 in December 2022 and repaid four quarterly instalments totalling US\$5,000,000 during 2023. Based on the principal amount of the Term Loan outstanding at the end of 2023, we are scheduled to repay US\$5,625,000 during 2024, US\$7,500,000 during 2025, US\$8,125,000 during 2026 and the remaining US\$72,500,000 during 2027. We have the option to prepay some or all of the outstanding principal amount of the Term Loan at any time prior to maturity without premium or penalty.

We may, at any time, on one or more occasions, add to the principal amount of the Term Loan and/or the RCF by way of an Incremental Facility Amendment, provided that the increment is less than US\$5.0m and the aggregate outstanding principal amount of all incremental Term Loan amounts would not thereby exceed the higher of US\$60.0m and the Consolidated Adjusted EBITDA for the twelve months preceding the end of the most recent calendar quarter.

Our borrowings under the Credit Agreement and Incremental Facility Amendment were initially subject to two financial covenants that are normally tested quarterly: the Net Leverage Ratio (the ratio of Consolidated Total Debt at the end of each quarter to Consolidated Adjusted EBITDA for the preceding twelve months) and the Fixed Charges Coverage Ratio (the ratio of Consolidated Cash Flow to Consolidated Fixed Charges for the preceding twelve months) as defined in the Credit Agreement.

The maximum permitted Net Leverage Ratio was 3.75 times up to the period ended 30 June 2023, 3.5 times up to the period ending 31 March 2024 and is 3.0 times thereafter until maturity of the facilities. The minimum permitted Fixed Charges Coverage Ratio was initially 1.25 times over the term of the facilities.

For the test period ended on 30 June 2023, the Fixed Charges Coverage Ratio was below the minimum permitted level. On 22 September 2023, we agreed with the lenders an amendment to the Credit Agreement which suspends the Fixed Charges Coverage Ratio from the period ended 30 September 2023 to the period ending 30 June 2024, after which it is set at 1.1 times until the period ending 30 September 2025 when it reverts to 1.25 times. When the Fixed Charges Coverage Ratio resumes, the test periods ending on 30 September 2024, 31 December 2024 and 31 March 2025 are shortened to the preceding three, six and nine-month periods, respectively.

While there were no changes affecting the Net Leverage Ratio test, the amendment to the Credit Agreement introduced a Minimum Liquidity Requirement whereby the average daily closing balance of cash and cash equivalents plus any unused portion of the Revolving Credit Facility during any month and the closing balance on the last day of each month must not be less than US\$75.0m for any test period ending on or prior to 31 December 2023 and not less than US\$45.0m for any test period ending thereafter until 30 September 2025.

The Group met both of the applicable financial covenants for the test periods ended on 30 September 2023 and 31 December 2023.

Both the Term Loan and amounts currently drawn under the RCF bear interest at floating rates of interest based on the Secured Overnight Financing Rate (SOFR) for the relevant tenor and adjusted according to the Group's Total Net Leverage ratio.

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22 Loans and borrowings continued

Changes in liabilities arising from financing activities were as follows:

	Loans and borrowings US\$'000	Interest payable US\$'000	Lease liabilities US\$'000	Total US\$'000
As at 1 January 2022	–	–	7,828	7,828
Acquisition of subsidiaries	1,451	–	2,616	4,067
Financing cash inflow/(outflow)	208,750	(650)	(3,038)	205,062
Currency translation differences	–	–	(60)	(60)
Other movements	–	3,134	7,587	10,721
As at 31 December 2022	210,201	2,484	14,933	227,618
Financing cash inflow/(outflow)	10,000	(18,390)	(4,740)	(13,130)
Currency translation differences	174	–	(40)	134
Other movements	–	16,053	6,527	22,580
As at 31 December 2023	220,375	147	16,680	237,202

23 Measurement of financial instruments

Analysis by class and category

We set out below the carrying amount of financial assets and liabilities held by the Group by class and measurement category and their estimated fair value at the balance sheet date:

	As at 31 December 2023	
	Carrying amount	
	Amortised cost US\$'000	Fair value US\$'000
Financial assets		
Cash and cash equivalents	101,291	101,291
Trade and other receivables	103,498	103,498
Contract assets	65,173	65,173
Total financial assets	269,962	269,962
Financial liabilities		
Trade and other payables	(71,060)	(71,060)
Lease liabilities	(16,680)	(16,680)
Loans and borrowings	(220,375)	(220,375)
Total financial liabilities	(308,115)	(308,115)

	Restated as at 31 December 2022 ¹			
	Carrying amount			
	Amortised cost US\$'000	At fair value through profit or loss US\$'000	Total US\$'000	Fair value US\$'000
Financial assets				
Cash and cash equivalents	186,231	—	186,231	186,231
Trade and other receivables	137,890	—	137,890	137,890
Contract assets	56,987	—	56,987	56,987
Total financial assets	381,108	—	381,108	381,108
Financial liabilities				
Trade and other payables	(94,220)	(5,000)	(99,220)	(99,220)
Lease liabilities	(14,933)	—	(14,933)	(14,933)
Loans and borrowings	(210,201)	—	(210,201)	(210,201)
Total financial liabilities	(319,354)	(5,000)	(324,354)	(324,354)

1. Restated to reflect the finalisation of the purchase price allocation for the acquisition of OpenFive (notes 12 and 30) and to allocate the expected credit loss allowance between trade receivables from contracts with customers and contract assets.

Financial instruments carried at fair value

During the periods under review, all financial instruments held by the Group were carried at amortised cost except for the contingent consideration liability recognised in relation to the acquisition of Precise-ITC that was carried at fair value through profit or loss.

Financial instruments that are carried at fair value are categorised into one of three levels in a fair value hierarchy according to the nature of the significant inputs to the valuation techniques that are used to determine their fair value as follows:

- > Level 1 – Quoted (unadjusted) market price in active markets for identical assets or liabilities;
- > Level 2 – Inputs other than Level 1 that are observable either directly (as market prices) or indirectly (derived from market prices); and
- > Level 3 – Unobservable inputs, such as those derived from internal models or using other valuation methods.

Contingent consideration in respect of the acquisition of Precise-ITC was dependent on the aggregate value of Precise's IP Core revenue and bookings exceeding US\$10,000,000 during 2022. We determined the acquisition date fair value of the liability using an option pricing model based on a range of possible outcomes for Precise's IP Core revenue and bookings. Since the inputs to the fair value calculation were therefore largely unobservable, the fair value of the liability on initial recognition was a Level 3 fair value. Precise's actual IP Core revenue and bookings during 2022 significantly exceeded our expectations at the acquisition date. As at 31 December 2022, we therefore increased the liability to the maximum amount payable of US\$5,000,000. We paid this amount to the vendors in May 2023.

Movements in the liability for contingent consideration were as follows:

	Year ended 31 December	
	2023 US\$'000	2022 US\$'000
Contingent consideration		
At the beginning of the year	(5,000)	—
Acquisition of Precise-ITC	—	(740)
Change in estimate (other operating expenses)	—	(4,260)
Settlements	5,000	—
At the end of the year	—	(5,000)

Notes to the consolidated financial statements continued

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23 Measurements of financial instruments

continued

Financial instruments not carried at fair value

We are required to disclose the fair value of those financial instruments that are not carried at fair value.

Cash and cash equivalents, trade and other receivables, contract assets and trade and other payables (other than contingent consideration) are of short maturity and/or bear interest at floating rates. We therefore consider that their carrying amounts approximate to their fair value (Level 2).

We have calculated the fair value of lease liabilities by discounting the future lease payments at the relevant lessee's incremental borrowing rate based on observable yield curves at the balance sheet date (Level 2).

With the exception of the Term Loan, we consider that the carrying amount of loans and borrowings approximates to their fair value. In the case of the Term Loan, its carrying amount is stated net of the unamortised balance of issue costs and therefore does not represent its fair value. Since the Term Loan bears interest at a floating rate, we consider that the principal amount of the loan outstanding approximates to its fair value (Level 2).

24 Financial risk management

Background

The Board has overall responsibility for the determination of the Group's risk management objectives and policies. Whilst retaining ultimate responsibility for them, it has delegated the authority for designing and operating processes that ensure the effective implementation of the objectives and policies to the Group's centralised finance function, from which the Board receives regular updates.

The principal objectives of the Board are to ensure adequate funding is available to meet the Group's requirements and for maintaining an efficient capital structure, together with managing the Group's counterparty credit risk, interest rate risk and foreign currency exposures.

Credit risk

Credit risk is the risk that a customer or a counterparty financial institution fails to meet its contractual obligations as they fall due, causing the Group to incur a financial loss. The Group is exposed to credit risk in relation to receivables from its customers, contract assets and cash and cash equivalents held with financial institutions.

Before accepting a new customer, we assess the potential customer's credit quality and establish a credit limit. Credit quality is assessed using data maintained by reputable credit agencies, by checking references included in credit applications and, where they are available, by reviewing the customer's recent financial statements. Credit limits are subject to authorisation and are reviewed on a regular basis.

We recognise an allowance for credit losses in respect of trade receivables and contract assets measured as the amount of the lifetime expected credit losses. We estimate the expected credit loss on accounts receivable and contract assets using a provision matrix based on the Group's historical credit loss experience, adjusted for factors that are specific to the customers, and general current and forecasted economic conditions. When constructing the provision matrix, we grouped trade receivables and contract assets based on credit risk factors against which we applied differing loss rates. If we are aware of specific factors relevant to risk of default of a customer, we may apply a loss rate to balances receivable from that customer that differs from that suggested by the provision matrix.

Information about the allowance for expected credit losses by credit risk group was as follows:

	As at 31 December 2023			As at 31 December 2022		
	Weighted-average loss rate	Gross carrying amount US\$'000	Loss allowance \$'000	Weighted-average loss rate	Gross carrying amount US\$'000	Loss allowance \$'000
Start-up company based in developing country	12%	45,311	5,620	1%	25,300	300
Other start-up companies	0%	21,658	85	6%	21,500	1,194
Established company based in developing country	25%	11,261	2,772	2%	8,200	200
Other established companies	3%	40,019	1,020	2%	19,989	490
		118,249	9,497		74,989	2,184

Movements in the allowance for expected credit losses were as follows:

	Year ended 31 December	
	2023 US\$'000	2022 US\$'000
At the beginning of the year	2,184	—
Net remeasurement of loss allowance	7,337	2,184
Foreign exchange difference	(24)	—
At the end of the year	9,497	2,184

As at 31 December 2023, one customer accounted for 14% (2022: 20%) of the aggregate balance of trade receivables and contract assets. Management has no reason to believe that the amounts owed by the customer are not fully collectible in the future.

Cash and cash equivalents are placed, where possible, with financial institutions that have a median credit rating of not less than Aa3 (Moody's), AA- (Standard & Poor's), AA- (Fitch) or equivalent. We regularly monitor the credit quality of financial institutions with whom we have placed the Group's funds. Credit risk is further limited by holding cash on deposits with relatively short maturities.

Market risk

Market risk is the risk that the fair value of, or cash flows associated with, a financial instrument will fluctuate because of changes in market prices. Market risk comprises three types of risk: interest rate risk (due to changes in market interest rates), currency risk (due to changes in currency exchange rates) and other price risk.

Interest rate risk

The interest rate profile of the Group's financial assets and liabilities was as follows:

	As at 31 December 2023			
	Interest bearing		Non-interest bearing US\$'000	Total US\$'000
	Floating rate US\$'000	Fixed rate US\$'000		
Cash and cash equivalents	65,443	1,457	34,391	101,291
Trade and other receivables and other assets	—	—	103,498	103,498
Contract assets	—	—	65,173	65,173
Total financial assets	65,443	1,457	203,062	269,962
Trade and other payables	—	—	(71,060)	(71,060)
Lease liabilities	—	—	(16,680)	(16,680)
Loans and borrowings	(220,375)	—	—	(220,375)
Total financial liabilities	(220,375)	—	(87,740)	(308,115)

Notes to the consolidated financial statements continued

FOR THE YEAR ENDED 31 DECEMBER 2023

24 Financial risk management continued

Market risk continued

	Restated as at 31 December 2022 ¹			
	Interest bearing		Non-interest bearing US\$'000	Total US\$'000
	Floating rate US\$'000	Fixed rate US\$'000		
Cash and cash equivalents	113,616	29,244	43,371	186,231
Trade and other receivables and other assets	–	–	137,890	137,890
Contract assets	–	–	56,987	56,987
Total financial assets	113,616	29,244	238,248	381,108
Trade and other payables	–	–	(99,220)	(99,220)
Lease liabilities	–	–	(14,933)	(14,933)
Loans and borrowings	(210,201)	–	–	(210,201)
Total financial liabilities	(210,201)	–	(114,153)	(324,354)

1. Restated to reflect the finalisation of the purchase price allocation for the acquisition of OpenFive (notes 12 and 30) and to allocate the expected credit loss allowance between trade receivables from contracts with customers and contract assets.

The Group's principal exposure to interest rate risk is in relation to floating rate loans and borrowings and cash deposits.

Currency risk

Currency risk arises on financial instruments that are denominated in a currency other than the functional currency of the entity that holds them. The Company's functional currency is pound sterling (GBP) and its principal subsidiaries have different functional currencies, including Canadian dollar (CAD), US dollar (USD), Israeli shekel (ILS), Indian rupee (INR) and Chinese renminbi (RMB). Substantially all of the Group's revenue and a significant proportion of its expenses are denominated in US dollars. Accordingly, the Group is subject to currency risk, particularly in those entities that have a functional currency other than the US dollar.

The Group does not use derivative instruments to reduce its exposure to currency risk.

The Group's exposure to currency risk was as follows:

	As at 31 December 2023							Total US\$'000
	CAD US\$'000	GBP US\$'000	ILS US\$'000	INR US\$'000	RMB US\$'000	TWD US\$'000	USD US\$'000	
Cash and cash equivalents	632	41,957	133	473	2,756	210	55,130	101,291
Trade and other receivables and other assets	20,376	902	596	1,055	6,211	72	74,286	103,498
Contract assets	–	–	–	–	66	–	65,107	65,173
Trade and other payables	(26,829)	(4,969)	(2,266)	(3,954)	(393)	(21)	(32,628)	(71,060)
Lease liabilities	(14,949)	–	(832)	(890)	(9)	–	–	(16,680)
Loans and borrowings	–	–	(1,625)	–	–	–	(218,750)	(220,375)
	(20,770)	37,890	(3,994)	(3,316)	8,631	261	(56,855)	(38,153)

	Restated as at 31 December 2022 ¹						Total
	CAD US\$'000	GBP US\$'000	ILS US\$'000	INR US\$'000	RMB US\$'000	USD US\$'000	US\$'000
Cash and cash equivalents	(6,648)	125,218	833	1,965	12,986	51,877	186,231
Trade and other receivables and other assets	—	—	—	1,572	23	136,295	137,890
Contract assets	—	—	—	—	—	56,987	56,987
Trade and other payables	(1,663)	(952)	(794)	(2,660)	(10,039)	(83,112)	(99,220)
Lease liabilities	(12,579)	—	(1,049)	(1,305)	—	—	(14,933)
Loans and borrowings	—	—	(1,451)	—	—	(208,750)	(210,201)
	(20,890)	124,266	(2,461)	(428)	2,970	(46,703)	56,754

1. Restated to reflect the finalisation of the purchase price allocation for the acquisition of OpenFive (notes 12 and 30) and to allocate the expected credit loss allowance between trade receivables from contracts with customers and contract assets.

When applied to financial instruments denominated in foreign currencies held at the end of the year, the effect on the Group's profit or loss before tax of a 5% strengthening or weakening of those currencies against the relevant functional currencies would have been as follows:

Foreign currency	As at 31 December	
	2023 US\$'000	2022 US\$'000
CAD	834/(834)	4,807/(4,807)
GBP	778/(778)	583/(583)
ILS	498/(498)	18/(18)
INR	26/(26)	187/(187)
RMB	632/(632)	90/(90)
USD	899/(899)	4,599/(4,599)

Other price risk

Other price risk is market risk other than interest rate risk or currency risk. The Group has no significant exposure to other price risk.

Liquidity risk

Liquidity risk is the risk that an entity will encounter difficulty in meeting obligations associated with its financial liabilities.

In October 2022, the Company entered into a Credit Agreement with a syndicate of banks that provided it with a US dollar-denominated Delayed Draw Term Loan B ('Term Loan') facility of US\$100.0m and a multi-currency Revolving Credit Facility (RCF) of US\$125.0m. As at 31 December 2023, the facilities were fully drawn.

The Credit Agreement contains various provisions, covenants and representations that are customary for such facilities. For the test period ended 30 June 2023, the Fixed Charges Coverage Ratio was below the minimum required level. As described in note 27, we subsequently agreed with the lenders an amendment to the Credit Agreement such that testing of the Fixed Charges Coverage Ratio would be suspended until 30 June 2024 and thereafter the minimum required level would be reduced and the length of the testing periods would be reduced until 30 September 2025. While there were no changes to the Net Leverage Ratio, the amendment to the Credit Agreement introduced a Minimum Liquidity Requirement which effectively set minimum required levels for cash and cash equivalents. We currently monitor and forecast cash flows on a weekly basis at both Group and entity level. As at 31 December 2023, cash and cash equivalents amounted to US\$101.3m (2022: US\$186.2m). As explained in note 2, the Directors are satisfied that the Group has sufficient liquidity to continue as a going concern.

Notes to the consolidated financial statements continued

FOR THE YEAR ENDED 31 DECEMBER 2023

24 Financial risk management continued

Liquidity risk continued

The following table sets out the contractual maturities (representing undiscounted contractual cash flows) of financial liabilities:

	As at 31 December 2023			
	Due within 1 year US\$'000	Due between 1 and 5 years US\$'000	Due > 5 years US\$'000	Total US\$'000
Trade and other payables	69,285	1,775	–	71,060
Lease liabilities	3,953	7,660	5,067	16,680
Loans and borrowings	5,625	214,750	–	220,375
	78,863	224,185	5,067	308,115

	Restated as at 31 December 2022 ¹			
	Due within 1 year US\$'000	Due between 1 and 5 years US\$'000	Due > 5 years US\$'000	Total US\$'000
Trade and other payables	88,665	10,555	–	99,220
Lease liabilities	3,756	8,819	2,358	14,933
Loans and borrowings	5,000	205,201	–	210,201
	97,421	224,575	2,358	324,354

1. Restated to reflect the finalisation of the purchase price allocation for the acquisition of OpenFive (notes 12 and 30).

Capital management

The Group's capital is represented by its total equity less net debt less lease liabilities. By this definition, the Group's capital as at 31 December 2023 was US\$332,144,000 (2022: US\$429,370,000) as follows:

	As at 31 December	
	2023 US\$'000	2022 US\$'000
Total equity	467,908	468,273
Loans and borrowings	220,375	210,201
Cash and cash equivalents	(101,291)	(186,231)
Net debt	119,084	23,970
Lease liabilities	16,680	14,933
Total capital	332,144	429,370

We seek to maintain a capital structure that supports the ongoing activities of our business and its strategic objectives in order to deliver long-term returns to shareholders. We allocate capital to support organic and inorganic growth, investing in research and development and our IP licensing and product offerings. We fund our growth strategy using a mix of equity and debt after giving consideration to prevailing market conditions.

25 Post-employment benefits

Defined contribution plans

The Group operates defined contribution pension plans in most of the countries in which it operates. During 2023, the Group recognised an expense of US\$4,115,000 (2022: US\$1,300,000) for defined contribution plans. As at 31 December 2023, the Group had not paid contributions due to the plans totalling US\$nil (2022: US\$3,000). All contributions due for the year have since been paid to the plans.

Defined benefit plans

Prior to the acquisition of Open Silicon in August 2022, the Group had no defined benefit plans. Open Silicon operates unfunded gratuity and accrued leave plans in India that provide employees with lump sum benefits on leaving employment that are based on the individual's final salary and length of service.

Prior to and immediately following the acquisition, the benefit obligation was not measured on an actuarial basis. During 2023, we engaged an independent qualified actuary and the benefit obligation as at 31 December 2023 and the amounts recognised in comprehensive income for the year are based on the actuary's valuation of the plans that was prepared using the projected unit credit method. Remeasurement of defined benefit plans represents actuarial gains and losses relating to gratuity and leave encashment.

Movements in the benefit obligation were as follows:

	Year ended 31 December	
	2023 US\$'000	2022 US\$'000
At the beginning of the year	821	—
Acquisition of Open Silicon (note 30)	—	323
Recognised in profit or loss:		
Current service cost	489	507
Interest expense	60	—
Recognised in other comprehensive income:		
Experience adjustments	472	—
Change in financial assumptions	735	—
Benefits paid by employer	(59)	(9)
Currency translation differences	(42)	—
At the end of the year	2,476	821

As at 31 December 2023, the principal assumptions used in measuring the benefit obligation were as follows:

Staff attrition rate - age less than 30 years	10.0% p.a.
Staff attrition rate - 31-44 years	5% p.a.
Staff attrition rate - 45 years and above	3% p.a.
Mortality rate	IALM 2012-14
Rate of increase in salaries year 1	22.0% p.a.
Rate of increase in salaries year 2	15% p.a.
Rate of increase in salaries year 3 onwards	10% p.a.
Discount rate	7.4% p.a.

Mortality assumptions used in measuring the benefit obligation were based on the Indian Assured Lives Mortality 2012-14 tables ('100% of IALM 2012-14') published by the Institute of Actuaries in India.

Sensitivities of the benefit obligation to reasonably possible changes in the principal assumptions are immaterial to the consolidated financial statements.

Notes to the consolidated financial statements continued

FOR THE YEAR ENDED 31 DECEMBER 2023

26 Share capital and reserves

Share capital and share premium account

Share capital

The Company's share capital is comprised of ordinary shares with a nominal value of £0.01 per share.

The number of authorised, issued and fully paid ordinary shares was as follows:

	Number of shares	Nominal value US\$'000
As at 1 January 2022	664,965,934	9,399
Shares issued under employee share schemes	30,102,266	352
As at 31 December 2022	695,068,200	9,751
Shares issued under employee share schemes	20,446,367	260
As at 31 December 2023	715,514,567	10,011

Shares issued during the year

During 2023, 20,446,367 shares (2022: 29,442,453 shares) were issued on the exercise or vesting of awards made under employee share schemes.

Since most of the awards were exercised or vested at £0.01 cost to the employee, the cash proceeds received by the Company on issue of the shares was equal to their aggregate nominal value. During 2023, a notional bonus expense of US\$70,000, (2022: not material), calculated at the nominal value of £0.01 per share, was recognised in the profit or loss account and credited to share capital.

Rights and restrictions

Ordinary shareholders have no entitlement to a share in the profits of the Company except for dividends that may be declared from time to time. All ordinary shares rank equally with regard to the Company's residual assets in the event of a liquidation.

Ordinary shareholders have the right to attend, and vote at, general meetings of the Company or to appoint a proxy to attend and vote at such meetings on their behalf. Ordinary shareholders have one vote for every share held.

Share premium account

The share premium account represents the difference between the nominal value of shares in issue and the fair value of the consideration received. For 2023 the amount allocated to the share premium account is US\$863,000 (2022: US\$775,000). The share premium account is not distributable but may be used for certain purposes specified by United Kingdom law, including to write off expenses on any issue of shares and to pay up fully paid bonus shares.

Other reserves

Merger reserve

In May 2021, the Company purchased the entire issued share capital of Alphawave IP Inc., the Group's former parent Company, by way of an exchange of shares in a Group reorganisation that was accounted for as a merger. The merger reserve represents the excess of the nominal value of the Company's ordinary shares issued over the nominal value of Alphawave IP Inc's common shares in issue at the date of the reorganisation.

Share-based payment reserve

The share-based payment reserve represents the cost recognised to date in respect of share-based payment awards that have not been exercised.

Currency translation reserve

The currency translation reserve comprises gains and losses arising on the translation of the results and financial position of foreign operations from their functional currencies into US dollars.

27 Share-based payment

Prior to the Company's IPO in July 2021, options and restricted stock units (RSUs) were granted to employees and consultants to the Company and its subsidiaries under the Equity Incentive Plan (EIP). Following the IPO, no further awards were granted under the EIP and it was replaced by the Long-Term Incentive Plan (LTIP). Awards under the LTIP may take the form of RSUs, options or restricted ordinary shares.

While the specific terms of awards may vary according to individual grant agreements, options and RSUs granted under the EIP and the LTIP typically vest over four years with 25% vesting on the first anniversary of the grant date and the remaining 75% vesting in equal monthly instalments thereafter until the fourth anniversary of the grant date conditional on the participant remaining in the Group's employment during the vesting period and any performance conditions having been met. Unexercised options granted under the EIP and the LTIP expire on the fifth and tenth anniversary of the grant date, respectively. On exercise or vesting, each option and RSU issued under the plans converts into one ordinary share in the Company. Unexercised options and unvested RSUs carry neither rights to dividends nor voting rights. No amounts are paid or payable by the recipient on receipt of an RSU, however, there are exercise costs paid or payable by the recipient on receipt of an Option.

All options and RSUs outstanding under the plans are equity-settled awards.

During 2023, 24,810,455 (2022: 23,109,685) RSUs were granted under the LTIP. Since the Company does not expect to pay dividends during the vesting period, the grant date fair value of the awards was the market price of the Company's ordinary shares on the grant date. The weighted-average grant date fair value of the RSUs granted during the year was US\$1.38 (2022: US\$1.64). During the periods under review, no options were granted under the LTIP.

The number of options and RSUs outstanding and the weighted-average price of the options and RSUs on the grant date were as follows:

	Year ended 31 December 2023		Year ended 31 December 2022	
	Number of awards	Weighted-average exercise price (US\$) ¹	Number of awards	Weighted-average exercise price (US\$)
Outstanding at the beginning of the year	85,692,153	0.712	95,273,220	0.280
Granted	24,810,455	1.387	23,109,685	1.640
Exercised or vested	(20,446,367)	0.808	(30,102,266)	0.102
Forfeited	(3,792,278)	1.002	(2,588,486)	1.381
Outstanding at the end of the year	86,263,963	0.842	85,692,153	0.712
Vested at the end of the year	43,669,961	0.339	41,720,539	0.221

1. The weighted average exercise price relates to options only.

The price payable by participants on exercise or vesting of option awards outstanding at the end of the year was in the range US\$0.01 to US\$1.04 (2022: US\$0.01 to US\$1.13).

The weighted-average market price of the Company's ordinary shares on the dates that options and RSUs vested during 2023 was US\$1.45 (2022: US\$1.86).

During 2023, the total share-based compensation expense recognised by the Group was US\$40,691,000 (2022: US\$15,695,000). The primary reason for this increase is due to the two large acquisitions completing in the final four months of 2022 and headcount more than doubling, with every employee being granted RSUs. In 2023 there was also a prospective change in accounting method for the RSU charge, in that the charge is based on monthly graded vesting, not annual graded vesting.

Notes to the consolidated financial statements continued

FOR THE YEAR ENDED 31 DECEMBER 2023

28 Commitments

Software licence commitments

We have entered into a number of multi-year Software-as-a-Service (SaaS) arrangements that give us access to the supplier's application software, principally in relation to EDA software that we use in developing chip designs. We account for such arrangements as service contracts.

Future minimum payments under these arrangements were as follows:

	Year ended 31 December	
	2023 US\$'000	2022 US\$'000
Payable:		
Within one year	32,602	26,065
Between one and two years	11,132	26,792
Between two and five years	1,369	158
After more than five years	—	—
Total	45,103	53,015

Capital commitments

The shareholders' agreement governing the WiseWave joint venture stipulates that the Group shall invest up to US\$170,000,000 in WiseWave. As at 31 December 2023 the Group has invested US\$46,150,000 (2022: US\$31,420,000). The shareholders' agreement includes several matters that are classified as shareholder reserved matters, including any requirement for a capital contribution. Such shareholder reserved matters require the prior written approval of Alphawave or at least one of the Directors nominated by Alphawave to be passed. As any additional capital contribution requires the prior written approval of Alphawave, the Group's participation in future financing rounds is discretionary and therefore the Group has no capital commitments in relation to WiseWave.

WiseWave does not currently anticipate requiring the maximum amount stated in the shareholders' agreement and is likely to undertake an external financing round in the medium term. If such external financing round were to occur, the Group's interest in WiseWave would be diluted.

29 Related party transactions

Key management personnel

As defined by IAS 24 Related Party Disclosures, the Group's key management personnel are the Directors of the Company (who are identified on pages 78 to 81), the SVP, Engineering, the SVP, Operations and the Chief Financial Officer.

Expenses recognised in relation to the compensation of the Group's key management personnel were as follows:

	Year ended 31 December	
	2023 US\$'000	2022 US\$'000
Short-term employee benefits	5,898	5,962
Post-employment benefits	481	59
Termination benefits	25	—
Share-based payments	4,774	2,208
	11,178	8,229

Post-employment benefits comprise employer contributions payable to defined contribution pension plans.

Termination benefits comprise contractual payments in lieu of notice payable to the former Chief Financial Officer over the twelve-month period ending in May 2024.

Statutory information about Directors' remuneration is presented in the Directors' remuneration report on pages 100 to 121.

Other related party transactions

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

	Year ended 31 December	
	2023 US\$'000	2022 US\$'000
Transactions		
Revenue from companies on which a Director is the chairman of the board ¹	429	3,549
Revenue from VeriSilicon	–	3,270
Revenue from WiseWave, a joint venture, where there is common directorship	66,879	58,207
Operating expenses from a company on which a Director is a director	(133)	–
Costs capitalised as intangible assets from a company on which a Director is a director	(1,000)	(1,200)
	66,175	63,826
Balances		
Accounts receivable from a company on which a Director is the chairman of the board ¹	1,650	350
Accounts receivable from VeriSilicon	–	669
Accounts receivable from WiseWave, a joint venture, where there is common directorship	6,364	3,360
Contract asset from companies on which a Director is the chairman of the board ¹	2,567	6,750
Contract asset from WiseWave, a joint venture, where there is common directorship	40,785	20,217
Accrued liabilities with a company on which a Director is a director	(600)	(600)
	50,766	30,746
Contract liabilities from a company on which a Director is the chairman of the board	–	686
Prepaid expenses with a company in which a Director is a director	(67)	–
	(67)	686

1. Companies on which a Director is the chairman of the board are FLC Technology Group and DreamBig Semiconductor Inc. As John Lofton Holt ceased to be chairman of the board for Achronix Semiconductor Corporation on 8 July 2021, any transactions with Achronix Semiconductor Corporation have been excluded for 2023 but they are still included in the 2022 comparatives.

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. However, we have received advice that VeriSilicon is not a related party as defined by IAS 24 or Listing Rule 11. All revenue from VeriSilicon and related balances are in respect of transactions signed with VeriSilicon prior to the VeriSilicon reseller agreement moving under WiseWave as master reseller effective November 2021. All revenue and associated balances in respect of transactions signed with VeriSilicon since that date are now recognised through the WiseWave joint venture line. Please note this is only relevant for the 2022 comparative figures as there are no 2023 VeriSilicon figures. This is due to the VARVA agreement signed at the end of 2021 meaning all VeriSilicon revenue and associated balances fall under WiseWave.

Notes to the consolidated financial statements continued

FOR THE YEAR ENDED 31 DECEMBER 2023

30 Business combinations

Acquisition of Precise-ITC, Inc.

Year ended 31 December 2022

On 1 January 2022, we completed the acquisition of 100% of the equity interests of Precise-ITC, Inc. ('Precise'), a developer of Ethernet and Optical Transport Network (OTN) communications controller IP.

Precise, which is based in Ontario, Canada, brought a team of talented engineers and additional strategic IP to our portfolio. We had been working with Precise since 2019 and our combined IP solutions were already integrated in silicon products for several of our customers. Now, working as one team, we have an expanded and vertically integrated portfolio of communications IPs to service the most advanced global customers in the networking and data centre markets, including leading semiconductor companies and hyperscalers.

We acquired Precise for US\$8,000,000 on a cash and debt-free basis. We paid consideration of US\$8,470,000 in cash on completion, including US\$470,000 in respect of Precise's cash less indebtedness.

Additional consideration of up to US\$5,000,000 was payable contingent on the aggregate value of Precise's IP Core revenue and bookings exceeding US\$10,000,000 during 2022. Using an option pricing model, we determined that the fair value of the contingent consideration at the acquisition date was US\$740,000 and recognised a corresponding liability within trade and other payables.

Further payments totalling US\$11,500,000 may be made to one of the vendors during the period of up to three years following completion. Since those further payments are largely conditional on that individual continuing in the Group's employment, they are accounted for as employee compensation rather than as consideration for the purchase of the business.

We recognised goodwill of US\$3,097,000 on the acquisition of Precise that was principally attributable to the benefits expected to be derived from the combination of our technologies to develop new IP and increase our penetration of the rapidly growing networking and data centre markets.

From the acquisition date to 31 December 2022, Precise contributed revenue of US\$2,251,000 and net income of US\$2,747,000 to the Group's results.

Precise's actual IP Core revenue and bookings during 2022 significantly exceeded our expectations at the acquisition date. As a result, the full amount of the contingent consideration of US\$5,000,000 became payable to the vendors. As at 31 December 2022, we therefore increased the related liability to US\$5,000,000 and recognised a corresponding expense of US\$4,260,000 in profit or loss (within other operating expenses).

Year ended 31 December 2023

In May 2023, we paid US\$5,000,000 to the vendors in settlement of the contingent consideration, of which US\$740,000 (its fair value on the acquisition date) was included in cash flows from investing activities and the balance of US\$4,260,000 was included in cash flows from operating activities.

Acquisition of OpenFive

Year ended 31 December 2022

On 31 August 2022, we completed the acquisition of 100% of the equity interests in Open-Silicon, Inc. and related assets and liabilities that together comprised the OpenFive business unit of SiFive, Inc. and entered into certain IP licensing agreements that were integral to the business combination.

OpenFive is a leading provider of high-end SoC IP technologies globally, with a strong focus on the North American market. We believe that the acquisition of OpenFive has the following key benefits: it nearly doubles our connectivity and SoC IP portfolio and will accelerate our progress in providing advanced connectivity solutions in 5nm, 4nm, 3nm and beyond; it will enable us to offer leading-edge data centre and networking custom silicon solutions and will enhance our chiplet design capabilities; it significantly expands our customer base and total addressable market, including a new hyperscaler customer in North America, providing a broader platform from which to execute our sales strategy; and it brought a team of more than 300 people, largely based in India, that will considerably enhance our delivery capabilities.

We acquired the OpenFive business unit and the related IP licences for US\$210,000,000 on a cash and debt-free basis. We paid consideration of US\$203,636,000 in cash on completion, after deducting US\$6,364,000 in respect of OpenFive's estimated cash, indebtedness and working capital.

It was envisaged in the Stock and Asset Purchase Agreement that Alphawave may make an election under section 338 of the US Internal Revenue Code of 1986 to treat the purchase of OpenFive as an asset acquisition for US federal income tax purposes. If such an election is made, the tax base of the assets acquired would be 'stepped-up' to their fair values on the acquisition date, enabling the purchaser to claim higher income tax deductions for those assets. On the other hand, there is usually an increase in the income tax payable by the vendor and the Stock and Asset Purchase Agreement required Alphawave to compensate the vendor for the additional US income tax expense that it may incur if a section 338 election were made.

At the time the Directors approved the Group's 2022 accounts, we had made a section 338 election but were awaiting the final calculation of its financial effect and any amount payable to the vendor. We therefore took no account of the section 338 election in determining the purchase consideration and OpenFive's deferred tax assets and liabilities in the purchase price allocation that were reflected in the Group's 2022 accounts.

Consequently, the purchase price allocation was provisional in respect of any adjustments that may arise from the finalisation of OpenFive's cash, indebtedness and working capital on completion and the finalisation of the financial effect of the section 338 election. On that basis, we recognised provisional goodwill of US\$182,158,000 on the acquisition of OpenFive that is principally attributable to the assembled workforce, the benefits expected to be derived from the combination of our technologies to enhance our offering of advanced custom silicon solutions and further increases in our penetration of the rapidly growing networking and data centre markets.

From the acquisition date to 31 December 2022, OpenFive contributed revenue of US\$70,827,000 and a net loss of US\$11,717,000 to the Group's results. If we had acquired OpenFive on 1 January 2022, we estimate that the Group's revenue for 2022 would have been US\$75,847,000 higher but its net loss for 2022 would have been US\$13,554,000 greater.

Year ended 31 December 2023

We finalised the financial effect of the section 338 election in August 2023. As a result, we retrospectively adjusted the purchase price allocation as follows:

- > to derecognise deferred tax liabilities of US\$15,860,000 that were initially recognised in respect of identifiable intangible assets that became deductible for US federal income tax purposes as a result of the Section 338 election; and
- > to increase the purchase consideration to reflect the tax adjustment amount of US\$5,610,000 payable to compensate the vendor for the additional income tax payable as a consequence of the section 338 election.

We paid the tax adjustment amount to SiFive Inc. in October 2023.

As a result of these adjustments, the goodwill recognised on the acquisition was reduced by US\$10,250,000. We have not restated the Group's income tax expense for 2022 to reflect the retrospective application of the 'stepped up' tax base of the assets acquired because the effect was immaterial.

A binding arbitration decision was reached in December 2023 regarding OpenFive's cash, indebtedness and working capital on completion and the vendor paid the resulting purchase price adjustment of US\$12,437,000 to Alphawave in January 2024. At the end of August 2023, (i.e. at the end of the measurement period allowed by IFRS 3), it was unclear what the outcome of the dispute proceedings would be.

New information was obtained about facts and circumstances that existed at the acquisition date during the arbitration process and within the measurement period and therefore the provisional amounts recognised at the acquisition date have been adjusted accordingly. With the arbitration process concluding shortly after the end of the measurement period, management determined that the best estimate of the outcome as at the end of the measurement period was that the consideration would be retrospectively reduced by US\$12,437,000.

In the restated 2022 balance sheet, we have therefore reduced goodwill by US\$12,437,000 and recognised a receivable of US\$12,437,000.

Acquisition of Banias Labs

Year ended 31 December 2022

On 12 October 2022, we completed the acquisition of 100% of the equity interests of Solanium Labs Ltd (Solanium), a leading optical Digital Signal Processing (DSP) chip developer that trades under the name Banias Labs.

Banias Labs is based near Tel Aviv, Israel and brought a team of about 50 people, the majority of whom are engaged in research and development. Alongside the acquisition of Banias Labs, we entered into a non-binding, multi-year purchasing framework with a leading North American hyperscaler that proposes a multi-year roadmap for Alphawave to develop and sell a portfolio of optical products and DSPs, including coherent DSP technology from Banias Labs, with sales potentially ramping to over US\$300m. We consider that the acquisition of Banias Labs has the following key benefits: it brings silicon-proven optical DSP technology, expanding our product portfolio and strengthening our product roadmap; it will expand Alphawave's addressable market and deepen our commercial partnership with a leading North American hyperscaler; and it will enable us to target the growing opportunity to use coherent optical technology within data centres and in other shorter reach applications.

We purchased all of Banias Labs' outstanding issued common and preferred shares and all outstanding unexercised options over its common shares for US\$240,000,000 on a cash and debt-free basis. We paid US\$244,955,000 in cash on completion including US\$4,955,000 in respect of Banias Labs' estimated cash, indebtedness and working capital. We paid US\$24,300,000 of the initial consideration into an escrow fund that is available to settle any valid claims that we may make in relation to the representations, warranties and indemnities that were provided to us by the sellers. We funded the acquisition from existing cash balances and the proceeds of the US\$210.0m Senior Secured Credit Facilities, comprising a five-year US\$110.0m Revolving Credit Facility and a five-year US\$100.0m Term Loan, that we obtained in October 2022.

On completion, all outstanding unvested employee options over Banias Labs' common shares were converted into rights to receive future cash payments, which are generally subject to the vesting schedule and other terms (including a service condition) that governed the options that they replaced. We determined that the fair value of the deferred cash rights on the acquisition date was US\$31,013,000, of which US\$8,804,000 was attributable to employee service rendered before the acquisition date and is therefore accounted for as consideration. We are recognising the balance of US\$22,209,000 as an employee compensation expense over the remaining vesting periods of the deferred cash rights which extend to August 2026. The amount recognised as an expense, shown as 'Compensation element of Banias Labs deferred cash rights' in note 6, in 2023 was US\$8,352,000 and in 2022 was US\$1,702,000.

Notes to the consolidated financial statements continued

FOR THE YEAR ENDED 31 DECEMBER 2023

30 Business combinations continued

Acquisition of Banias Labs continued

Year ended 31 December 2022 continued

At the time the Directors approved the Group's 2022 accounts, we had completed the purchase price allocation, except for making any adjustments arising from the finalisation of Banias Labs' cash, indebtedness and working capital on completion. On that basis, we recognised provisional goodwill of US\$146,585,000 on the acquisition that is principally attributable to the assembled workforce and the benefits expected to be derived from the future development of new connectivity product offerings for the rapidly growing networking and data centre markets.

Since its key future products are under development, Banias Labs does not yet generate any revenue. From the acquisition date to 31 December 2022, Banias Labs contributed a net loss of US\$481,000 to the Group's results. If we had acquired Banias Labs on 1 January 2022, we estimate that the Group's net loss for 2022 would have been US\$12,388,000 greater.

Year ended 31 December 2023

We have not yet agreed Banias Labs' cash, indebtedness and working capital on completion with the vendors, but do not expect there to be any material adjustments. Since the measurement period allowed for finalising the purchase price allocation expired in October 2023, any future adjustments will be recognised in profit or loss.

Assets acquired and liabilities assumed

We have finalised the allocation of the purchase consideration to the identifiable assets and liabilities of the businesses acquired at their respective acquisition dates and goodwill as follows:

	Precise-ITC US\$'000	OpenFive US\$'000	Banias Labs US\$'000	Total US\$'000
Assets acquired				
Cash and cash equivalents	803	14,503	9,131	24,437
Trade and other receivables	269	38,451	1,256	39,976
Inventories	—	14,671	—	14,671
Technology/IP	7,800	30,100	83,900	121,800
Customer relationships	—	25,700	—	25,700
Other intangibles	—	6,573	—	6,573
Intangible assets	7,800	62,373	83,900	154,073
Property and equipment	52	813	1,702	2,567
Other assets	—	1,667	1,119	2,786
Total assets acquired	8,924	132,478	97,108	238,510
Liabilities assumed				
Trade and other payables	(70)	(40,924)	(2,073)	(43,067)
Contract liabilities	(1,120)	(40,241)	—	(41,361)
Deferred tax liabilities	(1,621)	—	(13,613)	(15,234)
Other liabilities	—	(1,538)	(5,261)	(6,799)
Total liabilities	(2,811)	(82,703)	(20,947)	(106,461)
Net identifiable assets acquired	6,113	49,775	76,161	132,049
Goodwill arising on acquisition	3,097	159,471	146,585	309,153
Consideration	9,210	209,246	222,746	441,202
Purchase consideration was as follows:				
Cash paid on completion	8,470	203,636	222,746	434,852
Purchase price adjustment	—	5,610	—	5,610
Contingent consideration	740	—	—	740
Consideration	9,210	209,246	222,746	441,202

We engaged qualified external experts to support the identification and measurement of the identifiable assets acquired and liabilities assumed. Identifiable intangible assets comprised developed technology/IP, customer relationships and third-party IP licences. We determined the fair values of the acquired technology/IP intangible assets using the multi-period excess earnings method (MEEM), the fair value of the customer relationships using the MEEM and the fair value of the third-party IP licences using the cost savings approach.

Trade and other receivables are stated at their gross contractual amounts receivable, which are considered to be reflective of their fair values. At the acquisition dates, management expected all of the contractual cash flows from trade and other receivables to be collected.

As a consequence of our having made the section 338 election, goodwill recognised on the acquisition of OpenFive is deductible for tax purposes. Otherwise, none of the goodwill recognised on business combinations completed during 2022 is deductible for tax purposes.

During 2023, we incurred acquisition-related costs of US\$831,000 (2022: US\$14,415,000) (included in other operating expenses).

Cash flows in relation to business combinations

During the years ended 31 December 2023 and 2022, the cash outflow on the purchase of businesses included in cash flows from investing activities was as follows:

	2023 US\$'000	2022 US\$'000
Cash paid on completion	—	434,852
Purchase price adjustment	5,610	—
Contingent consideration	740	—
Consideration paid	6,350	434,852
Cash and cash equivalents acquired	—	(24,437)
Cash outflow on purchase of businesses, net of cash acquired	6,350	410,415

Contingent consideration of US\$5,000,000 paid in 2023 in relation to the acquisition of Precise-ITC was higher than our estimate at the acquisition date and the excess of US\$4,260,000 is therefore included within cash flows from operating activities.

31 Events after the reporting period

There are no events after the reporting period to report.

Alternative performance measures

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:

	Year ended 31 December	
	2023 US\$m	2022 US\$m
Preliminary bookings (including royalties)	364.4	247.6
Adjustment	19.5	(19.5)
Bookings ¹	383.9	228.1
Royalties	—	(15.1)
Bookings (excluding royalties)	383.9	213.0

1. 2022 bookings exclude a contract of US\$19.5m that was signed by the acquired OpenFive business, but not considered a booking until 2023 when project viability was established.

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:

	Year ended 31 December	
	2023 US\$m	Restated ¹ 2022 US\$m
Backlog at the beginning of the year	379.7	183.8
Add: Bookings during the year (excluding royalties)	383.9	213.0
Add: Backlog acquired in business combinations	—	168.3
Less: Net adjustments/debookings during the year (excluding royalties)	(87.3)	—
Less: Revenue recognised during the year (excluding royalties)	(321.4)	(185.4)
Backlog at the end of the year	354.9	379.7

1. 2022 opening backlog figure restated to include a WiseWave booking of US\$15.2m previously omitted.

Our closing backlog at the end of 2023 is US\$354.9m (2022: US\$379.7m) and includes US\$87.3m of net adjustments/debookings. Nearly half of this balance includes debookings related to the acquired backlog from OpenFive.

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.

EBITDA may be reconciled to net income/(loss) for the period determined in accordance with IFRS as follows:

	Year ended 31 December	
	2023 US\$'000	2022 US\$'000
Net loss	(51,002)	(1,086)
Add/(deduct):		
Finance income	(3,448)	(1,684)
Finance expense	8,836	3,588
Loss from joint venture	14,730	18,481
Income tax expense	11,532	18,328
Depreciation of property and equipment – owned	11,212	2,472
Depreciation of property and equipment – leased	4,612	3,036
Amortisation of intangible assets	13,294	6,159
EBITDA	9,766	49,294

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.

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 options 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.

Alternative performance measures continued

Adjusted measures of profitability continued

Business combinations continued

Integration costs

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.

Adjusted EBITDA

Adjusted EBITDA may be reconciled to EBITDA as follows:

	Year ended 31 December	
	2023 US\$'000	2022 US\$'000
EBITDA	9,766	49,294
Add/(deduct):		
Acquisition-related costs	831	12,713
Compensation element of Bantias Labs deferred cash rights	8,352	1,703
Remeasurement of contingent consideration payable for Precise-ITC	—	4,260
Share-based compensation expense	40,691	15,695
Currency translation (loss)/gain	2,983	(36,838)
Adjusted EBITDA	62,623	46,827

Adjusted earnings per share

We monitor basic and diluted earnings per share (EPS) on an IFRS basis and on an adjusted basis. We consider that adjusted EPS measures are useful to investors in assessing our ability to generate earnings and provide a basis for assessing the value of the Company's shares (for example, by way of price earnings multiples).

Adjusted net income/(loss) for calculating adjusted EPS measures may be reconciled to net income/(loss) determined in accordance with IFRS as follows:

	Year ended 31 December	
	2023 US\$'000	2022 US\$'000
Net loss	(51,002)	(1,086)
Add/(deduct):		
Acquisition-related costs	831	12,713
Compensation element of Banias Labs deferred cash rights	8,352	1,703
Remeasurement of contingent consideration payable for Precise-ITC	—	4,260
Amortisation of acquired intangible assets	12,657	5,519
Share-based compensation expense	40,691	15,695
Currency translation (loss)/gain	2,983	(36,838)
Tax effect of above adjustments	(2,623)	4,708
Adjusted net income	11,889	6,674

Adjusted basic and diluted earnings per share were as follows:

	Year ended 31 December	
	2023 US\$ cents	2022 US\$ cents
Adjusted basic earnings per share	1.69	0.98
Adjusted diluted earnings per share	1.69	0.98

Adjusted basic and diluted earnings per share have been calculated by taking the adjusted net income/(loss) for the year and dividing it by the weighted average number of common shares that are used in calculating the equivalent measures under IFRS as presented in note 27 to the consolidated financial statements.

Company balance sheet

	Note	As at 31 December	
		2023 US\$'000	2022 US\$'000
Assets			
Current assets			
Cash and cash equivalents	5	16,911	125,729
Amounts owed by Group undertakings	6	21,404	14,769
Income tax receivables		2,417	364
Other receivables	7	11,888	14,194
Total current assets		52,620	155,056
Non-current assets			
Investments in subsidiaries	8	346,163	280,373
Other investments		1,019	–
Amounts owed by Group undertakings	6	366,304	260,011
Other receivables	7	6,392	17,091
Total non-current assets		719,878	557,475
Total assets		772,498	712,531
Liabilities and equity			
Current liabilities			
Trade and other payables	9	8,940	12,400
Amounts owed to Group undertakings		–	–
Income tax payable		–	145
Loans and borrowings	10	5,625	5,000
Total current liabilities		14,565	17,545
Non-current liabilities			
Trade and other payables	9	1,775	4,423
Loans and borrowings	10	213,125	203,750
Total non-current liabilities		214,900	208,173
Total liabilities		229,465	225,718
Share capital	11	10,011	9,751
Share premium account	11	1,638	775
Merger reserve	11	(777,751)	(777,751)
Share-based payment reserve	11	41,595	17,909
Currency translation reserve	11	(52,087)	(79,706)
Retained earnings		1,319,627	1,315,835
Total equity		543,033	486,813
Total liabilities and equity		772,498	712,531

As permitted by section 408 of the Companies Act 2006, the Company's income statement is not presented in these financial statements. The Company's loss for the financial year was US\$13,213,000 (2022: profit of US\$18,407,000).

The financial statements on pages 190 and 191 were approved and authorised for issue by the Board of Directors on 23 April 2023 and were signed on its behalf by:

Tony Pialis

Director

Company registered number: 13073661

The notes on pages 192 to 197 form part of these financial statements.

Company statement of changes in equity

	Note	Ordinary share capital US\$'000	Share premium account US\$'000	Merger reserve US\$'000	Share-based payment reserve US\$'000	Currency translation reserve US\$'000	Retained earnings US\$'000	Total equity US\$'000
As at 1 January 2022		9,399	—	(777,751)	4,497	(23,486)	1,295,391	508,050
Profit for the year		—	—	—	—	—	18,407	18,407
Other comprehensive expense		—	—	—	—	(56,220)	—	(56,220)
Total comprehensive income for the year		—	—	—	—	(56,220)	18,407	(37,813)
Settlement of share awards:								
– Issue of ordinary shares	11	106	775	—	—	—	—	881
– Effect of proceeds below nominal value		246	—	—	(246)	—	—	—
– Transfer of cumulative compensation expense on settled awards		—	—	—	(2,037)	—	2,037	—
Share-based compensation recognised in the year	12	—	—	—	15,695	—	—	15,695
Other changes in equity		352	775	—	13,412	—	2,037	16,576
As at 31 December 2022		9,751	775	(777,751)	17,909	(79,706)	1,315,835	486,813
Loss for the year		—	—	—	—	—	(13,213)	(13,213)
Other comprehensive income		—	—	—	—	27,619	—	27,619
Total comprehensive income for the year		—	—	—	—	27,619	(13,213)	14,406
Settlement of share awards:								
– Issue of ordinary shares	11	260	863	—	—	—	—	1,123
– Effect of proceeds below nominal value		—	—	—	—	—	—	—
– Transfer of cumulative compensation expense on settled awards		—	—	—	(17,005)	—	17,005	—
Share-based compensation recognised in the year	12	—	—	—	40,691	—	—	40,691
Other changes in equity		260	863	—	23,686	—	17,005	41,814
As at 31 December 2023		10,011	1,638	(777,751)	41,595	(52,087)	1,319,627	543,033

The notes on pages 192 to 197 form part of these financial statements.

Notes to the Company financial statements

FOR THE YEAR ENDED 31 DECEMBER 2023

1 Background

Reporting entity

Alphawave IP Group plc (the 'Company') is a public limited company that is incorporated and domiciled in England and Wales and whose shares are listed on the main market of the London Stock Exchange. The address of the Company's registered office is 6th Floor, 65 Gresham Street, London, EC2V 7NQ, United Kingdom.

The Company is the ultimate parent of a group of companies that develops and markets high-speed connectivity solutions for application in data centres, data networking, data storage, artificial intelligence, 5G wireless infrastructure and autonomous vehicles.

Statement of compliance

The Company's separate financial statements on pages 190 and 191 have been prepared in accordance with FRS 101 Reduced Disclosure Framework and those parts of the Companies Act 2006 that are applicable to companies reporting under FRS 101. Accordingly, the Company's separate financial statements comply with the recognition and measurement requirements of IFRS as adopted for use in the United Kingdom as at 31 December 2023 but they exclude certain disclosures that would otherwise be required under that body of accounting standards.

Basis of preparation

The Company's separate financial statements have been prepared on a going concern basis and in accordance with the historical cost convention.

The Company's material accounting policies are set out in note 2.

Going concern

At the time of approving the financial statements, the Directors are required to form a judgement as to whether the Company has adequate resources to continue in operational existence for the foreseeable future. In forming their judgement, the Directors consider the Company's current financial position, the Group's medium-term plan and its budget for the next financial year, and the principal risks and uncertainties that it faces.

As at 31 December 2023, the Company had cash and cash equivalents of US\$16.9m and had bank borrowings totalling US\$218.8m, comprised of a Term Loan of US\$93.8m and US\$125.0m drawn against a US\$125.0m Revolving Credit Facility. Both the Term Loan and the Revolving Credit Facility are scheduled to mature in the fourth quarter of 2027.

The Directors based their going concern assessment on the base case scenario and a severe but plausible downside scenario over the going concern period as follows:

- > Group revenue forecasts are materially reduced by 25% and the interest rate on the Group's debt is 200 basis points higher than forecast, with a controllable mitigating reduction of 10% of operating expenditure and a reduction of 50% in laboratory and prototyping operating and capital expenditure.

Under the base case and the downside scenario, the analysis demonstrates the Group can continue to maintain sufficient liquidity headroom with no default on debt covenants.

Following consideration of the Company's liquidity position and prospects for the year ahead, the Directors have a reasonable expectation that the Company has adequate resources for a period of at least twelve months from the date of approval of the financial statements and have therefore assessed that the going concern basis of accounting is appropriate in preparing the financial statements.

Use of estimates

The preparation of financial statements requires management to make estimates and assumptions that affect the reported amounts of assets and liabilities, as well as disclosure of contingent assets and liabilities at the date of the financial statements and the reported amounts of revenues and expenses during the reporting period. Actual outcomes could differ from those estimates and assumptions and affect the Company's results in future periods.

Presentation currency

The Directors consider that the Company's functional currency is pound sterling, but present the Company's financial statements in US dollars for comparability with the consolidated financial statements. All US dollar amounts are in thousands (US\$'000), except where stated otherwise.

Disclosure exemptions utilised under FRS 101

In preparing the Company's separate financial statements, the Directors utilised the following exemptions from the disclosure requirements of IFRS adopted for use in the United Kingdom that are available to them under FRS 101:

- > paragraphs 45(b) (number and weighted average exercise prices of share options) and 46 to 52 (determination of fair value of options and awards granted and financial effect of share-based compensation) of IFRS 2 Share-based Payment;
- > the requirements of IFRS 7 Financial Instruments – Disclosures;
- > paragraphs 91 to 99 (disclosure requirements) of IFRS 13 Fair Value Measurement;
- > paragraph 38 of IAS 1 Presentation of Financial Statements with regard to comparative information requirements in respect of paragraph 79(a)(iv) of IAS 1 (reconciliation of the number of the Company's shares outstanding at the beginning and end of the period);
- > paragraphs 10(d) (statement of cash flows), 16 (statement of compliance with IFRS), 38 (A to D) (comparative information), 111 (statement of cash flows) and 134 to 136 (disclosures about capital) of IAS 1 Presentation of Financial Statements;
- > IAS 7 Statement of Cash Flows;
- > paragraphs 30 and 31 of IAS 8 Accounting Policies, Changes in Accounting Estimates and Errors (discussion of IFRSs issued but not yet adopted by the Company); and
- > paragraphs 17 and 18A (compensation of key management personnel) and paragraph 19 (disclosure of transactions with wholly owned subsidiaries) of IAS 24 Related Party Transactions.

Accounting standards adopted during the year

During the year, the Company adopted the following new and amended accounting standards, none of which had a material impact on its results or financial position:

- > IFRS 17 Insurance Contracts;
- > International Tax Reform – Pillar Two Model Rules (Amendments to IAS 12);
- > Definition of Accounting Estimates (Amendments to IAS 8);
- > Disclosure of Accounting Policies (Amendments to IAS 1 and IFRS Practice Statement 2); and
- > Deferred Tax related to Assets and Liabilities arising from a Single Transaction (Amendments to IAS 12).

An outline of the changes introduced is provided in note 1 to the consolidated financial statements.

2 Material accounting policies

Investments in subsidiaries

A subsidiary is an entity that is controlled, either directly or indirectly, by the Company. Control exists when the Company is exposed, or has rights, to variable returns from its involvement with the entity and has the ability to affect those returns through its power to direct the activities of the entity that significantly affect its returns. Generally, such power exists where the Company holds a majority of the voting rights of an entity. Each of the Company's subsidiaries is wholly owned.

Investments in subsidiaries represents the Company's directly owned interests in its subsidiaries, i.e. does not include any interests that are owned by intermediate holding companies. Investments in subsidiaries are carried at cost, less impairment losses, if any.

Foreign currency translation

Translation into the Company's functional currency

Transactions denominated in foreign currencies are recorded in pounds sterling at the exchange rate ruling at the date of the transaction. Monetary assets and liabilities denominated in foreign currencies are translated into pounds sterling at the exchange rate ruling at the end of the reporting period. All resulting currency translation differences are recognised in profit or loss. Non-monetary assets and liabilities denominated in foreign currencies are not retranslated subsequent to initial recognition.

Translation into the Company's presentation currency

Income and expenses presented in profit or loss or other comprehensive income are translated from pounds sterling into US dollars at the average exchange rate for the reporting period. Assets and liabilities are translated from pounds sterling into US dollars at the exchange rate ruling at the end of the reporting period. All resulting currency translation differences are recognised in other comprehensive income and taken to the currency translation reserve.

Notes to the Company financial statements continued

FOR THE YEAR ENDED 31 DECEMBER 2023

2 Material accounting policies continued

Financial instruments

Cash and cash equivalents

Cash and cash equivalents comprise cash at bank and on hand and bank deposits with an original maturity of 90 days or less. Cash and cash equivalents are measured at fair value on initial recognition, less an allowance for expected credit losses, and subsequently measured at amortised cost using the effective interest method.

Amounts owed by Group undertakings

Amounts owed by Group undertakings are initially measured at fair value, less an allowance for expected credit losses, and are subsequently measured at amortised cost using the effective interest method.

Other receivables

Other receivables are measured at fair value on initial recognition, less an allowance for expected credit losses, and subsequently measured at amortised cost.

Impairment of financial assets

We recognise an allowance for credit losses in respect of financial assets that is measured as the amount of expected credit losses over the next twelve months. If, however, the risk of default has increased significantly since initial recognition, we measure the allowance as the amount of lifetime expected credit losses.

If a financial asset has no realistic prospect of recovery, it is written off, firstly against any allowance made and then directly to profit or loss. We consider that a financial asset is not recoverable if the balance owing is 180 days past due and information obtained from the counterparty and other external factors indicate that the counterparty is unlikely to pay its creditors in full. Any subsequent recoveries are credited to profit or loss.

Trade and other payables

Trade payables represent the value of goods and services purchased from suppliers for which payment has not been made. Trade and other payables are measured at fair value on initial recognition and subsequently measured at amortised cost.

Loans and borrowings

Bank and other loans are measured at fair value on initial recognition, less any directly attributable transaction costs, and are subsequently measured at amortised cost using the effective interest method.

If a loan or borrowing is subject to covenants and the Company is in breach of one or more of the covenants at the end of the reporting period, the carrying amount of the liability is classified wholly as a current liability, irrespective of any element that would otherwise be payable more than one year after the end of the reporting period.

Facility arrangement costs are amortised as a finance expense over the term of the facility.

Offsetting financial instruments

Financial assets and financial liabilities are offset and the net amount presented in the balance sheet where there is a currently enforceable legal right to offset the recognised amounts and management intends either to settle on a net basis or to realise the asset and settle the liability simultaneously.

Income taxes

Tax on the profit or loss for the year comprises current and deferred tax. Tax is recognised in the profit and loss account except to the extent that it relates to items recognised directly in equity or other comprehensive income, in which case it is recognised directly in equity or other comprehensive income. The Company has determined that the global minimum top-up tax – which is required to pay under Pillar Two legislation – is an income tax in the scope of IAS 12. The Company has applied a temporary mandatory relief from deferred tax accounting for the impacts of the top-up tax and accounts for it as a current tax when it is incurred.

Deferred tax is tax expected to be payable or recoverable on temporary differences between the carrying amount of an asset or liability in the financial statements and its tax base used in the computation of taxable profit. Deferred tax liabilities are generally recognised for all taxable temporary differences. Deferred tax assets are generally recognised for all deductible temporary differences to the extent that it is probable that taxable profits will be available in the future against which they can be utilised.

Where there is uncertainty concerning the tax treatment of an item or a group of items, the amount of current and deferred tax recognised is based on management's expectation of the likely outcome of the examination of the uncertain tax treatment by the relevant tax authorities.

Current tax and deferred tax is recognised in profit or loss unless it relates to an item that is recognised in the same or a different period outside profit or loss, in which case the related tax is also recognised outside profit or loss, either in other comprehensive income or directly in equity.

Share-based payments

As described in note 27 to the consolidated financial statements, the Company operates share-based compensation plans under which it grants options and RSUs over its ordinary shares to certain of its own employees and those of its subsidiaries. Awards granted under the existing plans are classified as equity-settled awards.

For awards granted to its own employees, the Company recognises a compensation expense that is based on the fair value of the awards measured at the grant date using an appropriate valuation model. For awards granted to the employees of a subsidiary, the Company recognises the compensation expense recognised by the subsidiary, less any amounts charged to the subsidiary, as a capital contribution to the subsidiary. In either case, the Company recognises a corresponding credit to the share-based payments reserve within equity.

In the event of the cancellation of an award by the Company or by the participating employee, the compensation expense that would have been recognised over the remainder of the vesting period is recognised immediately in profit or loss or as a capital contribution to the relevant subsidiary.

3 Directors and employees

The average number of people employed by the Company during the year was ten (2022: seven).

Statutory information about Directors' remuneration is set out in the Directors' remuneration report on pages 100 to 121.

4 Auditor's remuneration

Fees payable to the Company's auditor, KPMG LLP, are set out in note 8 to the consolidated financial statements.

5 Cash and cash equivalents

	As at 31 December	
	2023 US\$'000	2022 US\$'000
Cash at bank and in hand	16,911	125,729
Short-term deposits	–	–
Total	16,911	125,729

6 Amounts owed by Group undertakings

Current amounts owed by Group undertakings represent balances arising from normal course trading activities that are expected to be recovered within a year.

Non-current amounts owed by Group undertakings represent balances arising from normal course trading activities and loans to non-trading entities in respect of our acquisition of OpenFive and equity investment in WiseWave that are not expected to be recovered within a year.

7 Other receivables

	As at 31 December	
	2023 US\$'000	2022 US\$'000
Current		
Restricted cash	11,611	13,922
Prepayments	277	272
	11,888	14,194
Non-current		
Restricted cash	6,392	17,091
	6,392	17,091

Restricted cash comprises amounts held by third-party paying agents in respect of deferred consideration and future compensation amounts payable to employees of Banias Labs conditional on their remaining in the Group's employment during the respective vesting periods, the last of which expires during 2026. Cash held by the paying agent in relation to amounts that are forfeited by the employees will be returned to the Company.

Notes to the Company financial statements continued

FOR THE YEAR ENDED 31 DECEMBER 2023

8 Investments in subsidiaries

Movements in the carrying amount of interests in subsidiaries owned directly by the Company were as follows:

	US\$'000
As at 1 January 2022	22,391
Additions	240,135
Capital contributions – Share-based payments	15,695
Deferred cash rights	1,702
Foreign exchange	450
As at 31 December 2022	280,373
Capital contributions – Share-based payments	39,757
Deferred cash rights	8,352
Foreign exchange	17,681
As at 31 December 2023	346,163

During 2022, the Company acquired 100% of the share capital of Solanium Labs Ltd (Banias Labs).

Details of the Company's subsidiaries as at 31 December 2023 are set out on page 198.

9 Trade and other payables

	As at 31 December	
	2023 US\$'000	2022 US\$'000
Current		
Trade payables	1,888	1,302
Other payables	4,823	6,249
Accrued expenses	2,321	4,849
Social security and other taxes	(92)	–
	8,940	12,400
Non-current		
Other payables	1,775	4,423

Other payables include US\$4.5m (2022: US\$10.5m) deferred consideration and compensation payable to employees of Banias Labs.

10 Loans and borrowings

	As at 31 December	
	2023 US\$'000	2022 US\$'000
Current		
Term Loan	5,625	5,000
Non-current		
Revolving Credit Facility	125,000	110,000
Term Loan	88,125	93,750
	213,125	203,750

In October 2022, the Company entered into a Credit Agreement with a syndicate of banks that provided it with a US dollar-denominated Delayed Draw Term Loan B ('Term Loan') facility of US\$100.0m and a multi-currency Revolving Credit Facility (RCF) of US\$125.0m.

In October 2022, the Company drew the Term Loan facility in full and US\$110.0m from the RCF in connection with the acquisition of Baniyas Labs. The Company drew the remaining US\$15.0m of the RCF in May 2023.

Details of the facilities, including the repayment schedule attaching to the Term Loan and the applicable financial covenants, are set out in note 22 to the consolidated financial statements.

11 Share capital and reserves

Share capital and share premium account

Details of the Company's share capital are set out in note 26 to the consolidated financial statements.

Share capital represents the nominal value of shares in issue.

The share premium account represents the difference between the nominal value of shares in issue and the fair value of the consideration received. For 2023 the amount allocated to the share premium account is US\$863,000 (2022: US\$775,000). The share premium account is not distributable but may be used for certain purposes specified by United Kingdom law, including to write off expenses on any issue of shares and to pay up fully paid bonus shares.

Other reserves

Merger reserve

In May 2021, the Company purchased the entire issued share capital of Alphawave IP Inc., the Group's former parent Company, by way of an exchange of shares in a Group reorganisation that was accounted for as a merger. The merger reserve represents the excess of the nominal value of the Company's ordinary shares issued over the carrying amount of Alphawave IP Inc's net assets at the date of the reorganisation.

Share-based payment reserve

The share-based payment reserve represents the cost recognised to date in respect of share-based payment awards that have not been exercised.

Currency translation reserve

The currency translation reserve comprises gains and losses arising on the translation of the Company's results and financial position from its functional currency to its presentational currency.

Distributable profits

Profits available for distribution by the Company comprise its accumulated realised profits less its accumulated realised losses, subject to the restriction that a distribution may not reduce the Company's net assets below the aggregate of its called up share capital and its undistributable reserves.

The Directors consider that the Company's loss as at 31 December 2023 amounted to US\$13.2m (2022: US\$18.4m profit).

12 Share-based compensation

Details of the share-based compensation plans operated by the Company, together with information about share options exercised and outstanding, is presented in note 27 to the consolidated financial statements.

During 2023, the Company recognised an expense of US\$0.9m (2022: US\$0.2m) in respect of awards granted to its own employees.

13 Events after the reporting period

On 27 February 2024 Alphawave 102022 Limited was dissolved.

Notes to the Company financial statements continued

FOR THE YEAR ENDED 31 DECEMBER 2023

Related undertakings

Details of the Company's related undertakings as at 31 December 2023 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. ^{1,2}	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 95035	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 Engineering, Inc. 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
Alphawave Semi 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
Alphawave 102022 Limited (dissolved) ^{1,2}	65 Gresham Street, 6th Floor, London, England, EC2V 7NQ	United Kingdom (England & Wales)
Solanium Labs Ltd ¹	24 Hanagar, Hod HaSharon 4527713	Israel
Joint venture		
WiseWave Technology Co., LTD ^{1,3}	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.

Appendix

TCFD Compliance Table

Disclosure	Response
Governance – Compliant	
a. Describe the Board's oversight of climate-related risks and opportunities.	Page 46, Governance – page 44
b. Describe management's role in assessing and managing climate-related risks and opportunities.	Page 46, Governance – page 44
Strategy – Partially compliant	
a. Describe the climate-related risks and opportunities the organisation has identified over the short, medium and long term.	See Risks and Opportunities tables on pages 46-48
b. Describe the impact of climate-related risks and opportunities on the organisation's business, strategy and financial planning.	Dependency on natural, social and human capital – page 48 Strategy – page 44
c. Describe the resilience of the organisation's strategy, taking into consideration different climate-related scenarios, including a 2°C or lower scenario.	We have not performed a quantitative risk assessment or climate-related scenario analysis. In 2024 we will evaluate the additional requirements and associated costs to assess the resilience of the organisation under different climate-related scenarios. Following this evaluation we will make a decision on whether a quantitative risk assessment should be prioritised and the timing if appropriate.
Risk Management – Compliant	
a. Describe the organisation's processes for identifying and assessing climate-related risks.	Risk Management – Page 46
b. Describe the organisation's processes for managing climate-related risks.	See Risks and Opportunities tables on pages 46-48
c. Describe how processes for identifying, assessing and managing climate-related risks are integrated into the organisation's overall risk management.	Risk Management – Page 46
Metrics and Targets – Compliant	
a. Disclose the metrics used by the organisation to assess climate-related risks and opportunities in line with its strategy and risk management process.	Metrics and Targets – Page 45
b. Disclose Scope 1, Scope 2, and if appropriate, Scope 3 greenhouse gas (GHG) emissions, and the related risks.	Table – Page 45
c. Describe the targets used by the organisation to manage climate-related risks and opportunities and performance against targets.	Metrics and Targets – Pages 45 and 46

Appendix continued

SASB Table

SASB Topic	SASB Code	SASB Accounting Metric	Disclosure Details	Page Number of URL
Greenhouse Gas Emissions	TC-SC-110a.1	(1) Gross global Scope 1 emissions and (2) amount of total emissions from perfluorinated compound	Metric tons (t) CO-e	Page 45, 2023 Annual report
	TC-SC-110a.2	Discussion of long-term and short-term strategy or plan to manage Scope 1 emissions, emissions reduction targets, and an analysis of performance against those targets	The Group is putting in place mitigating actions to reduce its environmental impact, such as avoiding unnecessary business travel and purchasing energy from certified renewable sources, where possible.	Pages 44 and 45, 2023 Annual report
Energy Management in Manufacturing	TC-SC-130a.1	(1) Total energy consumed, (2) percentage grid electricity, (3) percentage renewable	Gigajoules (GJ), Percentage (%)	<p>We are a fabless business and outsource the manufacturing of semiconductors to the leading foundries in the industry. Therefore, energy management in manufacturing is not considered a material sustainability topic for our Company.</p> <p>Energy consumed in our office buildings is reported on page 45 of this report.</p>
Water Management	TC-SC-140a.1	(1) Total water withdrawn, (2) total water consumed, percentage of each in regions with High or Extremely High Baseline Water Stress	Thousand cubic metres (m ³), Percentage (%)	<p>We are a fabless business and outsource the manufacturing of semiconductors to the leading foundries in the industry. The use of water is limited to our office buildings. Therefore, water management is not considered a material sustainability topic for our Company.</p> <p style="text-align: right;">Index only.</p>

SASB Table continued

SASB Topic	SASB Code	SASB Accounting Metric	Disclosure Details	Page Number of URL
Waste Management	TC-SC-150a.1	(1) Amount of hazardous waste from manufacturing, (2) percentage recycled	Metric tons (t), Percentage (%)	We are a fabless business and outsource the manufacturing of semiconductors to the leading foundries in the industry. Therefore, hazardous waste from manufacturing is not considered a material sustainability topic for our Company. Index only.
Employee Health and Safety	TC-SC-320a.1	Description of efforts to assess, monitor and reduce exposure of workforce to human health hazards	D&A	Our H&S rules and procedures are in strict compliance with national, regional and/or local legislation.
	TC-SC-320a.2	Total amount of monetary losses as a result of legal proceedings associated with employee health and safety violations	Reporting currency	In 2023, there were no legal proceedings associated with employee health and safety violations. Index only.
Recruiting & Managing a Global & Skilled Workforce	TC-SC-330a.1	Percentage of employees that require a work visa	Percentage (%)	3.3%
Product Lifecycle Management	TC-SC-410a.1	Percentage of products by revenue that contain IEC 62474 declarable substance	Percentage (%)	The Company provides material declaration in IPC-1752 or supplier standard format upon email request. Index only.
	TC-SC-410a.2	Processor energy efficiency at a system level for: (1) servers, (2) desktops, and (3) laptops	Various, by product category	We do not disclose energy efficiency at a system-level as our IP and semiconductors are embedded in our customers' products together with a multitude of other components of which we have no control.
Materials Sourcing	TC-SC-440a.1	Description of the management of risks associated with the use of critical materials	D&A	See page 50 of this report. Conflict Mineral Policy available on our website.
Intellectual Property Protection & Competitive Behaviour	TC-SC-520a.1	Total amount of monetary losses as a result of legal proceedings associated with anti-competitive behaviour regulations	Reporting currency	In 2023, there were no legal proceedings associated with anti-competitive behaviour regulations. Index only.

Appendix continued

SASB Table continued

SASB Topic	SASB Code	SASB Accounting Metric	Disclosure Details	Page Number of URL
Recruiting & Managing a Global & Skilled Workforce	TC-SI-330a.2.	Employee engagement as a percentage	Percentage (%)	76% response rate to our second annual employee survey. The survey was conducted by Best Places to Work across the Group.

Companies Act climate-related reporting requirements

1. A description of the company's governance arrangements in relation to assessing and managing climate-related risks and opportunities;		See page 44 – Governance
2. A description of how the company identifies, assesses and manages climate-related risks and opportunities;		See page 46 – Risk Management
3. A description of how processes for identifying, assessing and managing climate-related risks are integrated into the company's overall risk management process;		See page 46 – Risk Management
4. A description of: <ul style="list-style-type: none"> i. the principal climate-related risks and opportunities arising in connection with the company's operations; and ii. the time periods by reference to which those risks and opportunities are assessed; 		See Risks and Opportunities tables on pages 46 – 48
5. A description of the actual and potential impacts of the principal climate-related risks and opportunities on the company's business model and strategy;		See page 44 – Strategy
6. An analysis of the resilience of the company's business model and strategy, taking into consideration different climate-related scenarios;		See pages 44 and 46 – Metrics and targets
7. A description of the targets used by the company to manage climate-related risks and to realise climate-related opportunities and of performance against those targets; and		See page 45 – Metrics and targets
8. A description of the key performance indicators used to assess progress against targets used to manage climate-related risks and realise climate-related opportunities and of the calculations on which those key performance indicators are based.		See page 45 – Metrics and targets

Shareholder information

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Shareholder information continued

Financial calendar 2024-2025

2023 Full-year results	23 April 2024
Q1 2024 Trading Statement	23 April 2024
Annual General Meeting	25 June 2024
Q2 2024 Trading Statement	w/c 15 July 2024
2024 Half-year results	*w/c 23 September 2024
Q3 2024 Trading Statement	*w/c 14 October 2024
Q4 2024 Trading Statement	*w/c 20 January 2025

* Provisional dates

Shareholder enquiries

Our registrars will be pleased to deal with any questions regarding your shareholdings (see contact details on previous page). Alternatively, you can contact the Company Secretary at cm-alphawave@linkgroup.co.uk.

Investor relations website

The investor relations section of our website, www.awavesemi.com/investors, provides further information for anyone interested in Alphawave IP Group plc. In addition to the annual report and accounts and share price, Company announcements including the full-year results announcements and associated presentations are also published there.

Glossary

112G	112 gigabit per second connectivity transmission speed for transmission of data	IP/silicon IP	intellectual property core, IP core, or IP block is a reusable unit of logic, cell or integrated circuit layout design
ASIC	application-specific integrated circuit (or system on chip (SOC)) that integrates all or most components of a computer or other electronic system	NED	Non-Executive Director
CAD	Canadian dollars	node	technology nodes, or process technologies, referring to the specific semiconductor manufacturing process and its design rules, generally designated by the process' minimum feature size (in nanometres)
CEO	President & Chief Executive Officer	NRE	non-recurring engineering, in reference to revenue earned in respect of one-time early-stage customer services including for research, design, development and testing
CFO	Chief Financial Officer	PAM4	Pulse Amplitude Modulation with Four Levels, or PAM-4, is a signal encoding technique that uses four voltage levels to represent four combinations of two bits logic (00, 01, 10, and 11)
chiplet	smaller modular pieces of silicon, utilised in a design technique to break integrated circuits into smaller pieces that can be individually designed and integrated together using die-to-die interfaces	PCIe	PCI-Express, a high-speed serial computer expansion bus standard
Coherent	Coherent Modulation is a technique that uses modulation of Amplitude and Phase of light, as well as transmission across two polarizations to enable transport of more information across the optical fiber	PPC	People, Places and Culture
Company	Alphawave IP Group plc	R&D	Research and development
CPU	central processing unit	RSU	Restricted stock unit
DSP	digital signal processing capabilities, enabled to perform a wide variety of signal processing operations	SerDes	serialiser/deserialiser, a wired connectivity component to interface between integrated circuits, which converts parallel streams of data (used as connectivity within integrated circuits) to serial streams (used in longer-distance transmission outside chips) and vice versa
Form factor	design aspect that defines and prescribes the size, shape and other physical specifications of hardware components	SoC	system on chip (or ASIC) that integrates all or most components of a computer or other electronic system
Gb	gigabyte, which is equivalent to 1,000,000,000 bytes	Tapeout	refers to the completion of the design phase of an IC and transfer of the design into a digital format suitable for creation of 'masks' used in the semiconductor wafer manufacturing process
GBP	Pounds sterling	wafer	in the fabrication of integrated circuits, the thin slice of semiconductor material (such as a crystalline silicon) in and upon which microelectronic devices are built
GPU	graphics processing unit		
Group	Alphawave IP Group plc and each of its consolidated subsidiaries		
IEEE	Institute of Electrical and Electronics Engineers, an electronics industry body, including educational and technical advancement of electrical and electronic engineering, telecommunications, computer engineering and allied disciplines, and standardisation		



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