ALPHAWAVE SEMI

The age of exponential data growth

Alphawave IP Group plc

Annual report and financial statements 2022

Who we are

Alphawave Semi is a leading semiconductor company specialised in high-speed wired connectivity technology that enables 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, data networking, data storage, artificial intelligence, 5G wireless infrastructure and autonomous vehicles.

Alphawave Semi operates with approximately 700 employees globally and 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.

Highlights

Financial

Revenue and revenue growth
US$185.4m +106%
FY 2021: US$89.9m +173%

Operating profit
US$37.6m
FY 2021: US$36.0m

Adjusted EBITDA[1] and margin
US$46.8m 25%
FY 2021: US$51.8m 58%

Cash flow from operating activities before tax
US$7.8m
FY 2021: US$26.5m

Non-Financial

Bookings[1]
US$228.1m
FY 2021: US$244.7m
US$96.9m excluding multi-year contracts

Number of employees[2] (closing)
695
FY 2021: 149

R&D employees[2] and % of total
621 89%
FY 2021: 129 87%

Number of end-customers
80
FY 2021: 20

Sustainability

GHG emissions
1,152.0 tCO_2e
FY 2021: 65.8 tCO_2e

GHG emissions per employee
1.78 tCO_2e
FY 2021: 0.49 tCO_2e

Employee turnover
10%
FY 2021: 7%

Gender diversity
20%
FY 2021: 15%

1. For definitions of non-IFRS measures see KPIs on page 58 and note 4 on pages 160 to 162.
2. FY 2022 and FY 2021 headcount numbers throughout the report exclude interns. In FY 2021 there were five interns who were previously reported as part of the R&D headcount.

Strategic report

Governance

Financials

Additional information

Our purpose, strategy and values

Purpose

To create economic and social value through the development and sale of connectivity technology for digital infrastructure markets.

Financial review on page 60
Non-financial information statement on page 55

Ambition

To become the leading semiconductor company in wired connectivity technology for digital infrastructure markets.

Further details on our end-markets on page 16

Strategy

Our strategy is built on three pillars:

- **Technology leadership**
- **Innovation**
- **Expansion**

Further details on our strategy on page 18

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 34 to 54

We are facing exponential growth in the amount of data that is created, processed, stored and shared. Digital infrastructure, such as data centres, requires technology that enables data to travel faster, more reliably, and at lower power. Our connectivity semiconductor technology enables this.

Our culture

Our values define 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. For this purpose, we seek to hire people who will help maintain and refine the culture we have fostered for continued success. Our values also form part of our annual objective setting and performance appraisal framework.

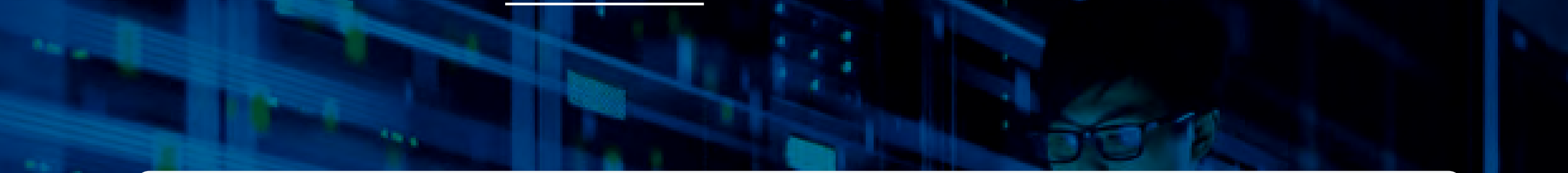
Culture and values

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

Further details on our culture and values on the next page.

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



Innovation

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

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.

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.

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.

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.

Collaborative

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.

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.

Letter from our Chair

> “Consolidating our vision for Alphawave Semi.

John Lofton Holt
Executive Chair

Dear shareholder,

2022 was our second year as a public listed company, a year during which the business made significant progress towards consolidating our vision to be a leading provider of connectivity technology for digital infrastructure markets. In support of our vision, we took the first steps towards a vertically integrated business model with the acquisitions of Precise-ITC, OpenFive and Banias Labs, as well as the announcement of a large non-binding multi-year agreement with a leading North American hyperscaler.

To reflect the enhancement in our business model, on 13 January 2023 we announced the rebranding of our business to Alphawave Semi, previously Alphawave IP. On that same day we also hosted our first Capital Markets Day, during which we shared our vision and long-term strategy with analysts and investors.

At our Capital Markets Day in January we outlined our new accelerated strategy to implement the vision we have held since our IPO in May 2021 – to become a vertically integrated semiconductor company focused on delivering the world’s most advanced connectivity solutions. This accelerates our ambitions to provide the world’s leading connectivity solutions through IP, custom silicon and silicon products. IP innovation, which has largely driven our success to date, remains core to our business leadership in each of these areas.

This has been a year of significant strategic progress, which has embodied our purpose to create value for our stakeholders in pursuit of our ambitions. Whilst we remain mindful of the challenging global macro and geopolitical environment, we are well positioned to continue the delivery of our strategic priorities in 2023 and beyond.

Financial performance

In 2022 we made a significant investment in future revenue growth. We completed three acquisitions (Precise-ITC, OpenFive and Banias Labs) and deployed US$439m of cash to realise our ambition for Alphawave Semi. We also raised US$210m in debt to maintain a strong balance sheet.

Bookings for the full year were US$228.1m. Excluding multi-year contracts, FY 2022 bookings were above the prior year (FY 2021: US$96.9m).

Alongside the growth in bookings, excluding multi-year contracts, we delivered another year of robust revenue growth. We delivered revenue of US$185.4m, up 106% year-on-year, a significant achievement for the business. Adjusted EBITDA was US$46.8m, 10% below the prior year while adjusted EBITDA margin was 25%, significantly below 2021 (FY 2021: 58%). The decrease in adjusted EBITDA margin was due to the expansion of the business both organically and through acquisitions. EBITDA in 2022 was above 2021 at US$49.3m (FY 2021: US$39.2m).

People, culture and values

As we welcome the teams from Precise-ITC, OpenFive and Banias Labs, the number of employees increased significantly from 149 to almost 700 at the end of 2022. Our Vice President of Human Resources, together with the leadership team, has worked hard to welcome all new employees to the Group and ensure a smooth integration.

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, and that we build strong relationships with all our stakeholders. They also form the foundations of our innovation-driven ambitions to be a leading provider of connectivity technology.

Our ongoing business success would not be possible without the commitment and passion of all our employees, and on behalf of the Board I would like to express our sincere gratitude for their hard work during a particularly exceptional period of business expansion.

Governance and oversight

In 2022 we continued to evolve our governance capabilities as Michelle Senecal de Fonseca became the voice for employees at Board level, working closely with our VP of Human Resources, Maia Jones. We further enhanced our team with the appointment of Kim Clear as our Company Secretary and Head of Governance, and Jose Cano as our Global Head of Investor Relations.

Relationships with our stakeholders

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 our stakeholders. As a result of the acquisition of OpenFive, we welcomed new customers as well as new partners in the value chain – such as test and assembly companies.

We contribute to society mainly by promoting diversity, fostering the next wave of innovation and innovators 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.

As a fabless business, i.e. we do not own any manufacturing facilities, we collaborate with multiple stakeholders in the supply chain, playing our role in promoting responsible business practices (see Supply Chain section on page 48). As the business grows and matures we will continue to enhance our policies and practices in this area.

In 2022, we put the building blocks of our sustainability strategy in place, identifying our core sustainability issues as well as the management approach and reporting. In addition, early in 2023, the Board approved the ESG Policy, setting the framework for all sustainability-related activities in the Group (see ESG section on page 34).

Simplifying our China go-to-market strategy

Since the Group launched its China go-to-market strategy in 2017, the geopolitical and macroeconomic situation has also had an impact on our industry. This has resulted in significant changes to the semiconductor industry. In 2022, in recognition of these external changes, the Group announced two major simplifications to its China strategy. First, Wise Road Capital significantly reduced its ownership of Alphawave Semi shares and sold its investment to large western institutional funds. This means that the Company no longer has significant investments from any Chinese institutional investors.

Second, we announced that we would make very little, if any, investment in WiseWave (formerly called the China Product Partnership) and that the Company would seek to sell its equity stake in WiseWave over the next two years. 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 respects the evolving geopolitical and macroeconomic environment.

Outlook 2023 and beyond

On 13 January 2023, we hosted our first Capital Markets Day in London. At the event, members of the management team shared their views on our markets and the medium-term potential of our business. We laid out our first medium-term financial model which targets 2025 revenue of US$500m and adjusted EBITDA margin of approximately 30%.

We are executing on our strategy, creating a leading semiconductor business in high-speed connectivity, building on our strengths and aiming to generate value for shareholders and other stakeholders over the long term.

On 4 May 2023, the Company announced that the Board had agreed with Daniel Aharoni that he would step down as CFO and as an Executive Director of the Company following the publication of the audited results of the Company for FY 2022. The Board has already commenced the search for his successor. In the interim, Christian Bowsher, Senior Director of Finance at Alphawave Semi, will serve as acting CFO to support myself and Tony Pialis to enable an orderly transition. Christian is an experienced member of Alphawave Semi's finance organisation, and he will be further supported by Raj Mahadevan, co-Founder and Senior Vice President of Operations, who managed the finance function from 2017 to 2021. Daniel has been a key part of our journey since our IPO in 2021 and during the three transformational acquisitions we undertook in 2022. On behalf of the Board, I would like to thank Daniel for his contributions and wish him all the best for the future.

As a result, this Annual Report and the Financial Review are signed off by the Chief Executive Officer of the Company, Tony Pialis. The Primary Statements and Certification are also signed off by Tony Pialis as a Director of the Company.

John Lofton Holt
Executive Chair

19 May 2023

CEO Q&A

> Building a global provider of leading connectivity technology for digital infrastructure.

Tony Pialis
President & Chief Executive Officer

Q. What would you highlight about the business performance in 2022?

2022 has been an important year for the Group. We have delivered a strong set of results, doubling our revenue from 2021 while investing in R&D. As a result, adjusted EBITDA and margin decreased from 2021. Profit before tax in 2022 was also below 2021 at US$17.2m (FY 2021: US$23.1m).

Through organic development and M&A we have consolidated our vision for the business. In 2022, we invested US$439m in the acquisition of three companies, enabling the transition from an IP business to a vertically integrated business. With an enhanced product portfolio, we can further monetise our IP in the form of custom silicon and other connectivity products, allowing us to gain greater scale and enhance our competitive position.

The number of employees has also significantly increased, from 149 at the end of 2021 to almost 700. In 2022, we welcomed almost 400 employees from the acquisitions of Precise-ITC, OpenFive and Banias Labs. In addition, we opened our second office in Canada, Ottawa, and our first location in the US, San Jose.

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 this period of accelerated business expansion.

Q. How do you see the digital infrastructure markets evolving?

Against the backdrop of an uncertain economic environment, digital infrastructure markets remained strong. Our core markets continued to provide compelling opportunities for growth. For example, in Q3 2022, the US cloud hyperscalers, Amazon, Google, Meta and Microsoft, increased spending by 24% year-on-year and the top three US cloud service providers had a combined market share of 66%[1]. Not surprisingly, the amount of data created, captured, replicated and consumed each year is expected to more than double in size from 2022 to 2026[2] and we expect our addressable market to grow at approximately 20% CAGR over the 2023-2026 period[3].

Early in 2023, we saw the introduction of language-based AI models like chatGPT and Bard. Our business is well positioned to benefit from the ongoing rollout of AI. As AI technologies become more powerful, the demand for data will become even greater and, more crucially, this makes data speeds, bandwidth and latency essential to the future of AI technology. Thousands of components, wires, switches, ports and more are organised in data centres to connect everything together. Improvements in these technologies allow for faster data speeds and bandwidth.

Cloud, AI and software providers will also benefit from the advantages of chiplet architecture and optimising silicon to their specific requirements, which will provide multiple opportunities for our custom silicon offering.

1. Synergy Research Group (srgresearch.com) https://www.srgresearch.com/articles/q3-cloud-spending-up-over-11-billion-from-2021-despite-major-headwinds-google-increases-its-market-share.
2. The Data Center Journey, From Central Utility To Center Of The Universe (semiengineering.com). Source Statista https://semiengineering.com/the-data-center-journey-from-central-utility-to-center-of-the-universe/.
3. Semico Research Corporation, December 2022, IPNest and LightCounting.

Our pipeline of customer opportunities reflects these trends. Our customers continue to seek differentiation and enhanced performance by transitioning faster to lower design nodes. Almost two-thirds of our design wins in 2022 were in 7nm and 5nm manufacturing processes, and we also had our first design win in 3nm in H1 2022. Alongside this, we continued to see hyperscale data centre providers reducing reliance on networking ASIC vendors.

The ongoing constraints on the semiconductor supply chain and the ubiquitous presence of semiconductors in our lives continue to reinforce the importance of semiconductor technology on a global scale. As the digital infrastructure continues to grow and makes the transition to utilise leading and more efficient technologies, we remain confident in the long-term outlook of the business.

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

In 2022, revenue from China was US$105m or 57% of the total. The increase in revenue from China was mainly driven by the multi-year contracts with WiseWave and VeriSilicon and the custom silicon revenue contribution from the acquisition of OpenFive. We expect a decline in revenue from China over the longer term, which will be mainly offset by revenue from North American customers.

China is an important market for the semiconductor industry and, like many other companies, we seek to establish long-term commercial relationships with Chinese customers. The Group will continue to comply with all applicable rules and regulations to ensure we can create sustainable customer relationships in all geographies.

Q. What did the acquisition of OpenFive bring?

With the acquisition of OpenFive we welcomed a team of over 300 employees with custom silicon expertise who have been working with global customers over the past two decades. In line with our 'land and expand' strategy, OpenFive substantially expands our customer base and addressable market in a market expected to grow 16% CAGR over the 2023-2026 period[3].

This acquisition also enhances and expands our product portfolio, doubling our IP portfolio, including, amongst others, storage and die-to-die connectivity IP. As a combined group we can now bundle our IP and expertise to win larger and more complex custom silicon opportunities at leading-edge process nodes.

Q. What was the strategic rationale to acquire Banias Labs?

Banias Labs' coherent DSP was designed with data centres in mind. Combined with Alphawave Semi's industry-leading analog components, it expands our addressable market into opto-electronics products, which are expected to grow 36% CAGR over the 2023-2026 period[3]. Alongside this acquisition we signed a non-binding multi-year agreement with a leading North American hyperscaler. With this framework agreement, we have an opportunity to develop a product roadmap and ship at least US$300m worth of products over the next several years with the added potential to grow significantly beyond this. The framework agreement reflects the synergies of our vertically integrated business model, with the potential to scale our revenue and cash flow streams.

Q. What are the main sustainability priorities for Alphawave Semi?

In early 2023, the Board approved our ESG Policy, which puts our people, business ethics, the advancement of technology, and the environment at the centre of our business model.

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. Our commitment to sustainability extends to our ongoing operations, as we seek to maintain high standards of business conduct across our value chain.

In 2022, we enhanced and expanded our sustainability reporting (see ESG section on page 34) and we will continue to do so over the coming years.

Q. What's next for Alphawave Semi? Is the Group considering further acquisitions?

During 2022, we invested a substantial amount of capital in the expansion of the business. In 2023, we will consolidate and fully embed the acquired businesses.

Despite an uncertain macro environment and challenging financial markets, our customers continue to invest in leading technology. This investment 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.

Investment case

A leading-edge connectivity technology business benefiting from the exponential growth of data driven by digitalisation and the long-term investment in digital infrastructure.

Our business benefits from the exponential growth of data and the required investment in a more reliable and efficient digital 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 next generation data centres, AI and autonomous vehicles, enabling data to travel faster, more reliably and at a lower power.
- Our addressable market is expected to grow at 20% CAGR over the 2023-2026 period.

Growth in addressable market 2023-2026 CAGR

+20%

2022 year-on-year growth in bookings[1] excluding multi-year subscription licences

+135%

Backlog[1] excluding royalties

US$364.5m

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

- Technology leadership – first to demonstrate functional silicon from 7nm to 3nm processes.
- 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.
- Increasing share of customers' technology budget through repeating business and higher-value solutions.

Number of end-customers

80

Engineering pool (as % of total employees)

89%

R&D expense as % of revenue

37%

We monetise our IP through a vertically integrated business model (licence and silicon), delivering high revenue growth and cash flow generation, which supports further investment in growth

- Licence model and long product cycles provide good visibility to long-term revenue streams and future cash flows.
- Actual cash flow generation reflects the investment in future revenue growth.
- Capital allocation supports organic and inorganic investment in future growth.

Year-on-year revenue growth

106%

Adjusted EBITDA[1] margin

25%

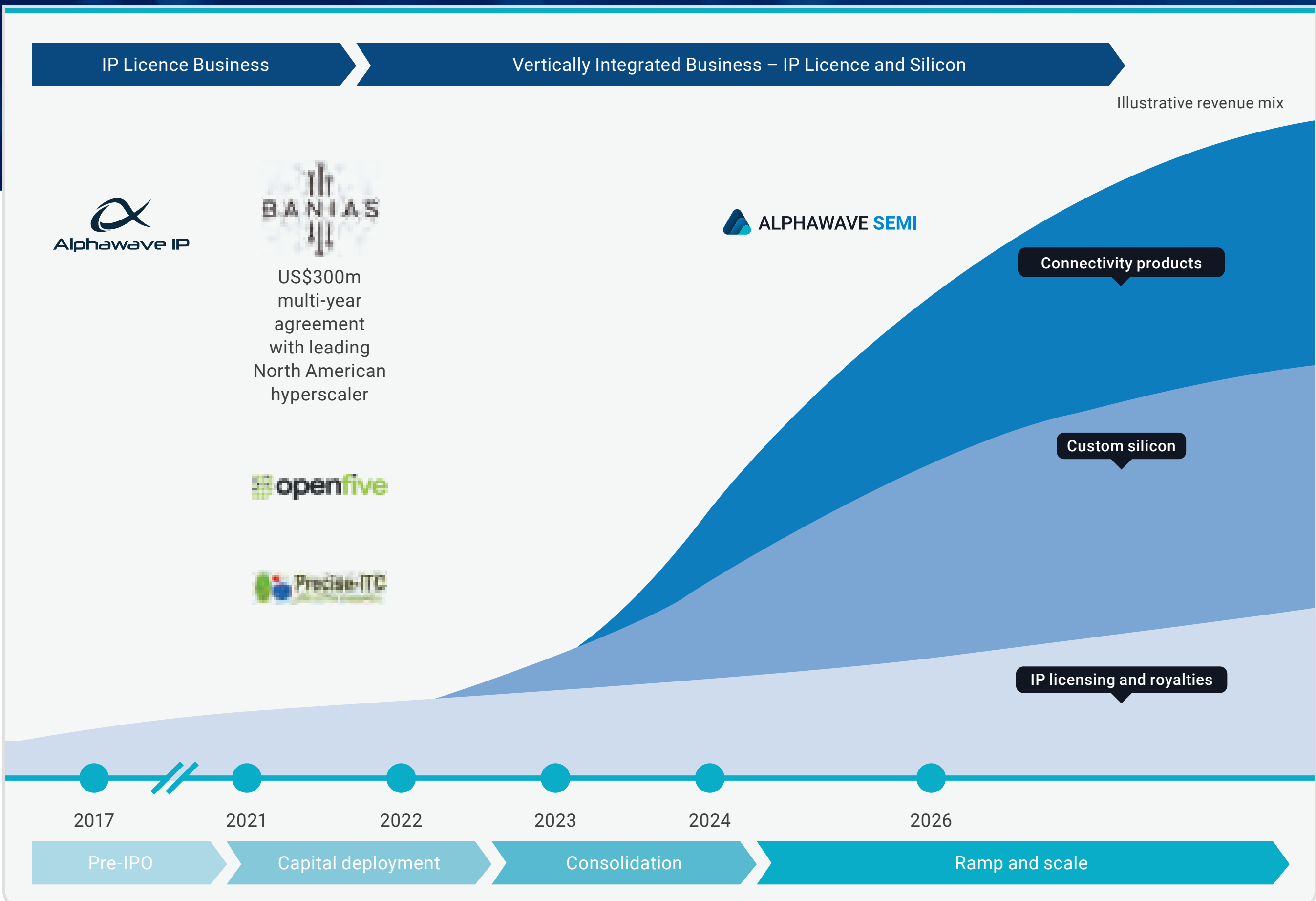
Cash flow from operating activities before tax

US$7.8m

1. For definitions of non-IFRS measures see KPIs on page 58 and note 4 on pages 160 to 162.

Consolidating our vision for the business

Since the IPO we have made significant progress towards our ambition to become a leading connectivity business targeting data infrastructure markets.



In 2022, we enhanced and extended our product portfolio, and significantly expanded our engineering capability, both organically and through M&A. During the year we invested US$439m in three acquisitions:

- **Precise-ITC:** Ethernet and optical networks IP;
- **OpenFive:** custom silicon expertise as well as additional memory and connectivity IP; and
- **Banias Labs:** coherent optical DSP technology specifically built for data centres.

As a result of these acquisitions and ongoing hiring, our total closing headcount increased from 149 in 2021 to 695 in 2022.

Throughout the last 16 months we have made excellent progress with our foundry partners. These collaborations play an important role in continuously pushing forward the boundaries of what is possible with our technology, enabling our customers to roll out advanced technologies. Last but not least, these acquisitions allowed us to monetise our IP through licences and silicon.

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.

IP licence

We license a customer to use an IP for a single end product on a specified manufacturing process. During the customer product development phase (approximately two years) we recognise the IP licensing fee, any non-recurring engineering fees and any support. Once our customer goes into production, most of our licences include royalty payments based on the volume of chips shipped by customers. Our IP is embedded in semiconductors with an average lifecycle of five to ten years.

Custom silicon

We develop silicon following customer specifications. During the development phase (up to two years) we recognise non-recurring engineering fees which are larger than when the customer pays per silicon IP.

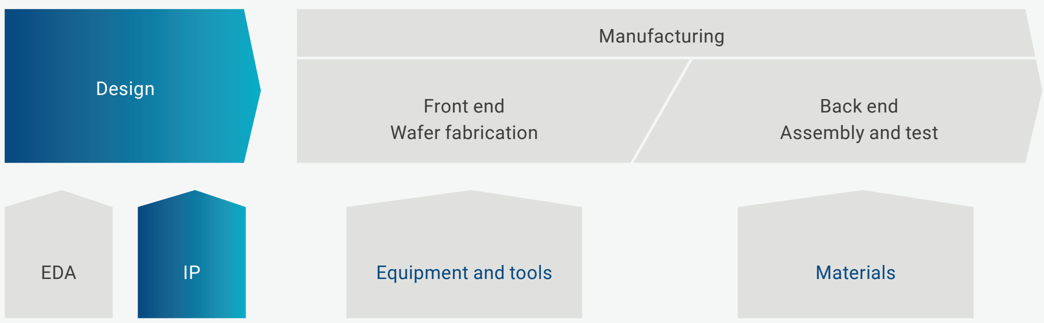
We also generate revenue from the supply of silicon when the customer orders silicon through us. Although fabless, we manage the full manufacturing, assembly and test process on behalf of our customers.

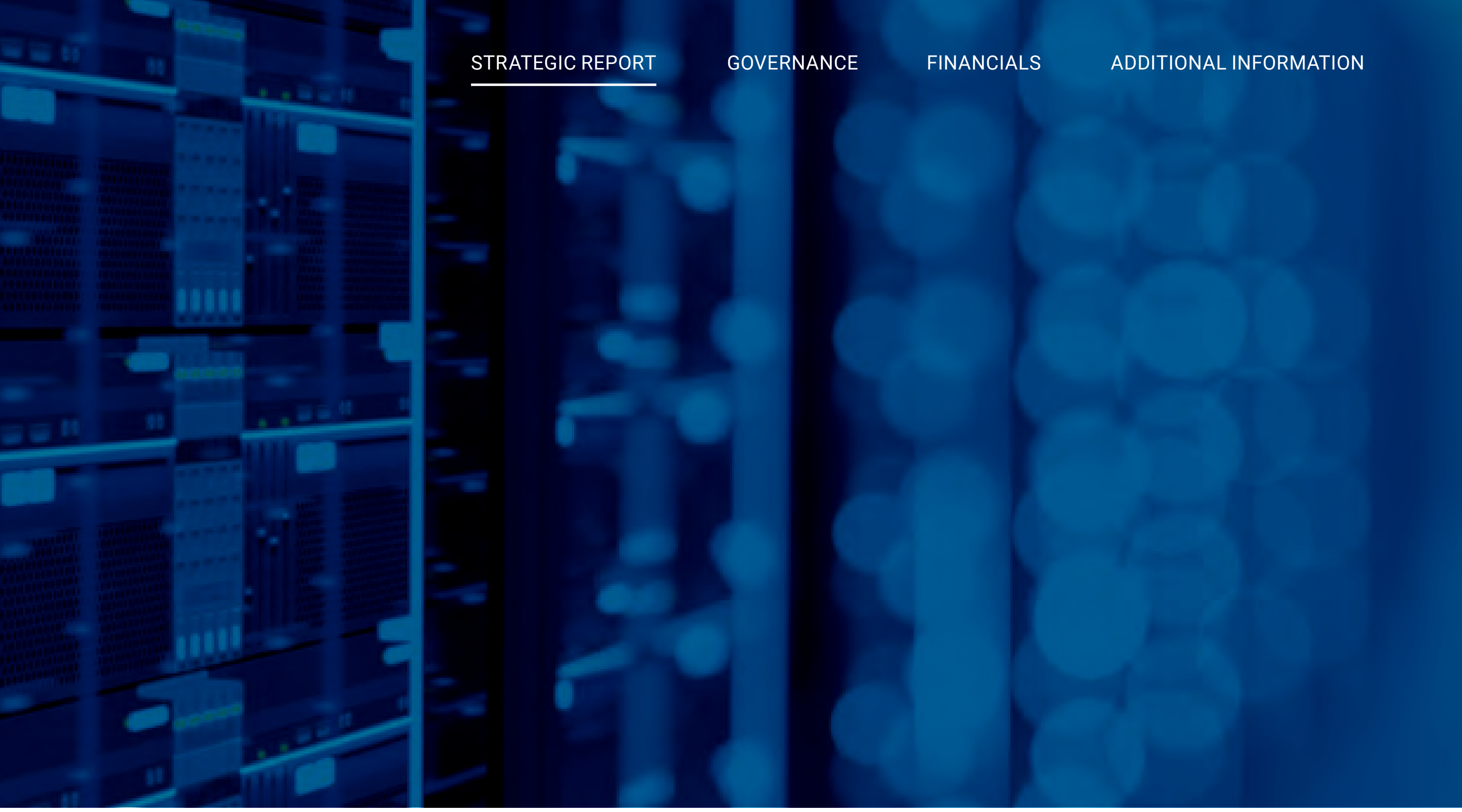
Connectivity products

The ongoing development of a range of new opto-electronics products targeting connectivity applications in data centres. Production will be outsourced to leading foundries deploying advanced production processes. Assembly and test will also be undertaken in close collaboration with our outsourced assembly and testing (OSAT) partners.

First products are expected to be in the market in 2024.

Where we are in the value chain

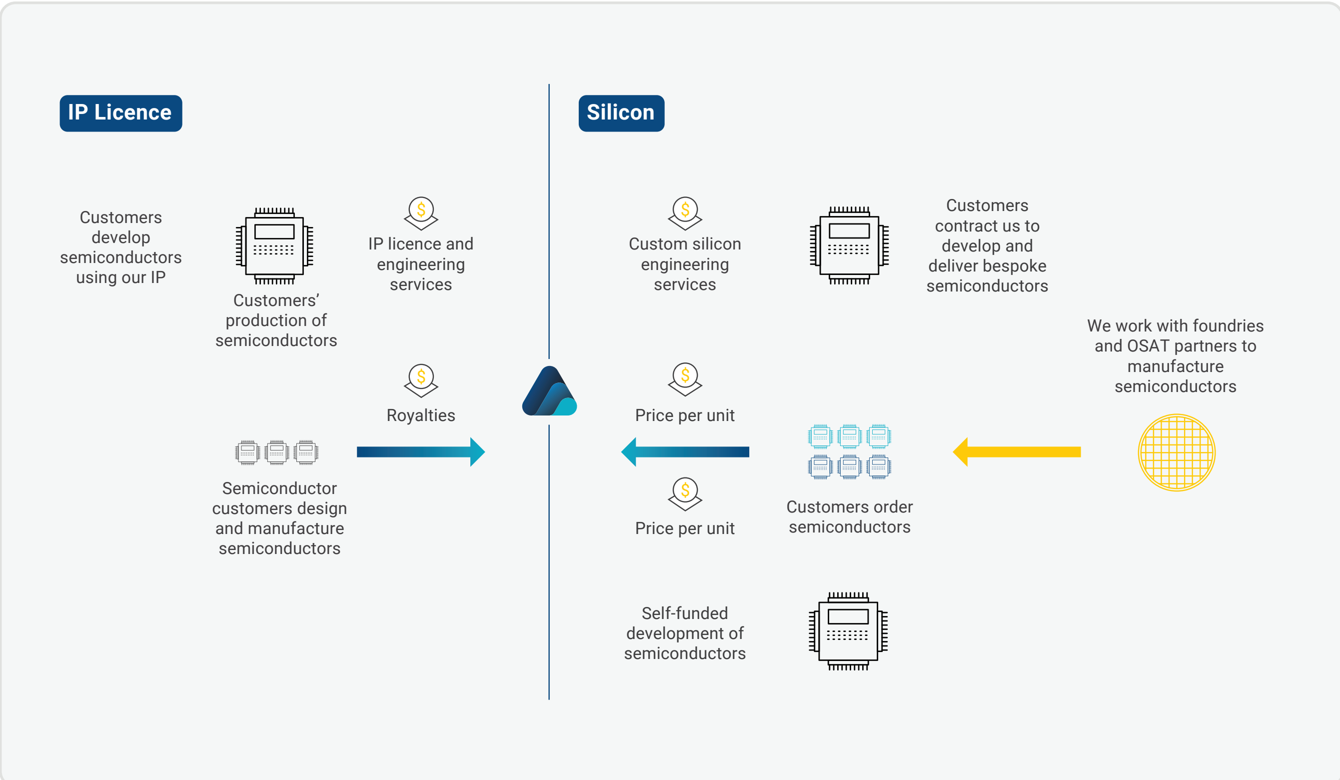




What we do

Addressing the hardest-to-solve connectivity challenges

We are facing an exponential growth in the amount of data that is created, processed, stored and shared. Alphawave Semi develops and markets connectivity technology for digital infrastructure, such as data centres, enabling data to travel faster, reliably and consuming less power.

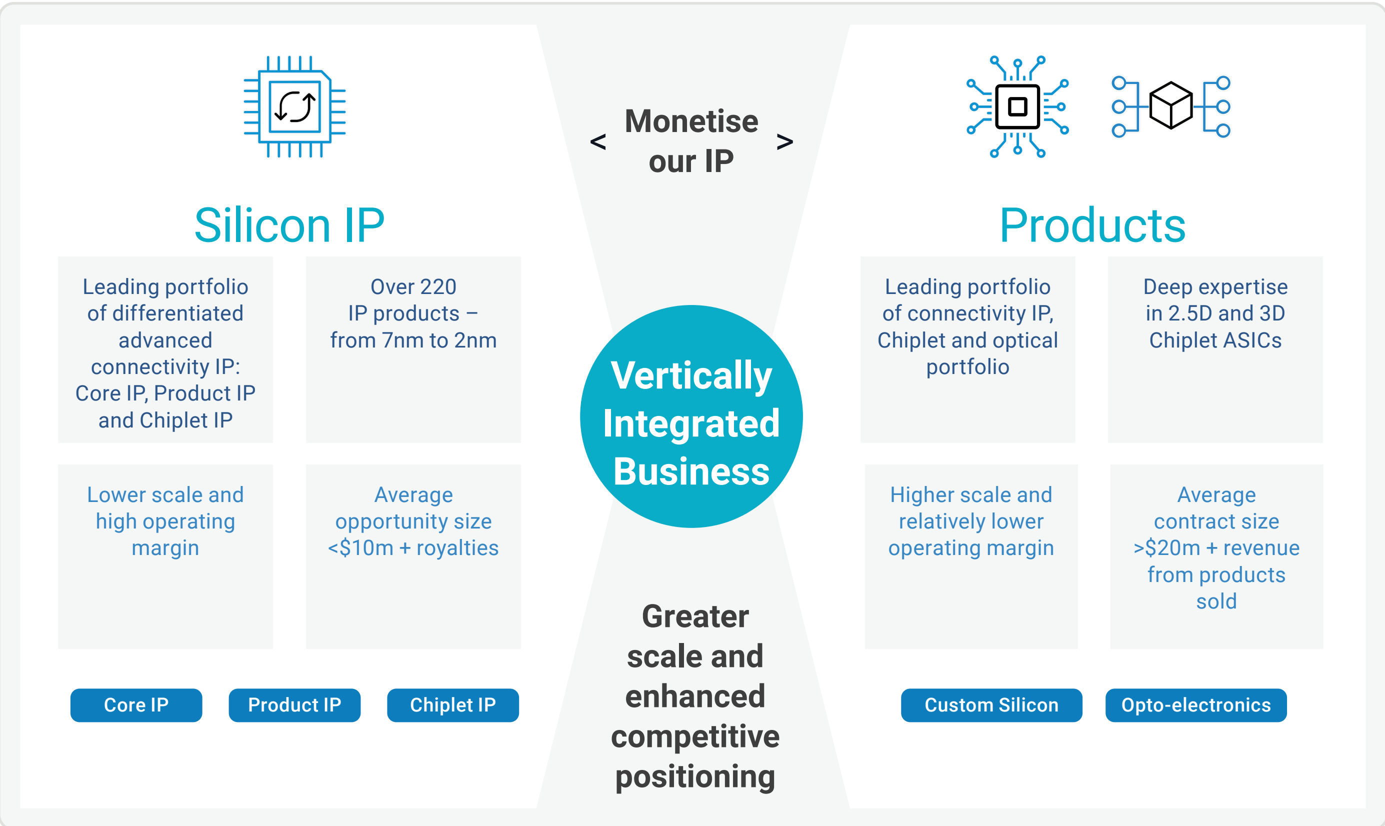


A vertically integrated business model continued

With the acquisitions of OpenFive and Banias Labs in 2022, our business expanded into silicon products. Our customers can choose between licensing our IP, entrust us with the development and dispatch of custom silicon and purchase a new range of opto-electronics products[1]. Our business model allows us to further monetise our IP, gain greater scale and enhance our competitive positioning relative to major industry players.

A sustainable business model

Since the inception of the Company we have sought to carefully manage our key sustainability issues and risks.
For more information see pages 26 and 27.



1. The new range of opto-electronics products is expected to ramp 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, as well as the link to our main risks and strategic pillars.

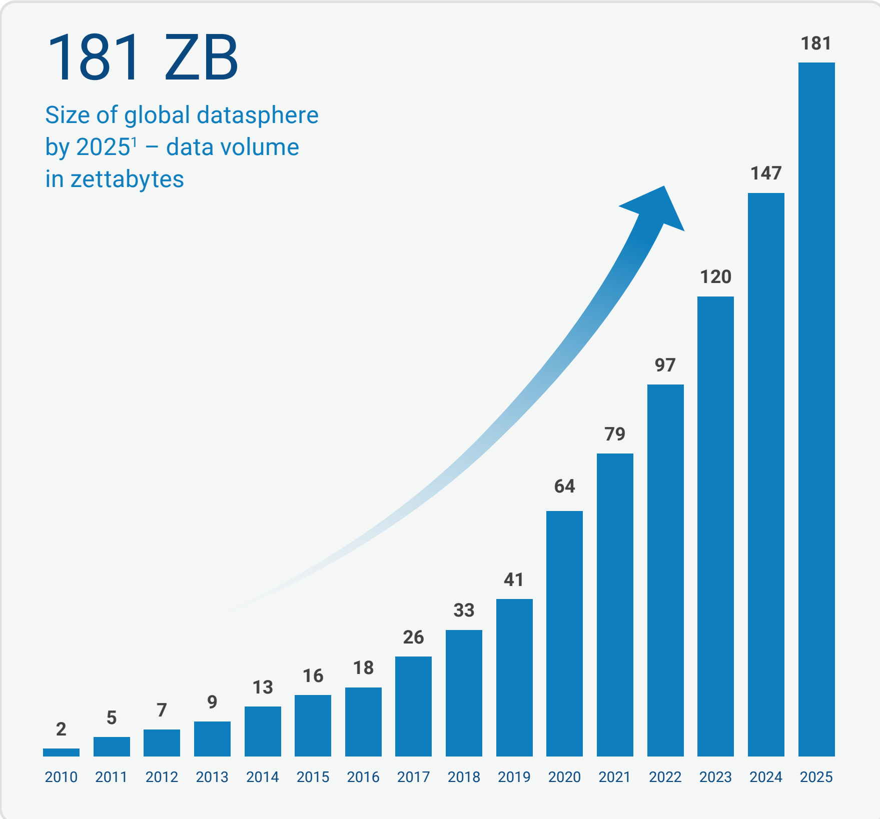
Inputs	Outputs/ outcomes	KPI/Metrics	Risks	Strategy
Talented people and diversity & inclusion	Highly engaged and diverse workforce See People section on page 35	• D&I KPIs • Workforce engagement • Employee turnover	• Growth • Technology leadership • Key personnel	Technology leadership Innovation
IP and expertise	Leading wired connectivity IP and products See Intellectual Property section on page 50	• % of R&D of total employees • TSMC OIP Partner Award since 2020 • 2022 Samsung Best Collaboration Award	• Growth • Technology leadership • IP protection/ infringement	Technology leadership Innovation
Ecosystem of partners and foundries	Responsible and longstanding relationships See Supply Chain section on page 48 and Business Ethics section on page 52	• On Time Delivery • Working with the three leading foundries in the industry	• Reliance on third party	Expansion
Close R&D collaboration with customers	Longstanding customer relationships	• Number of end-customers • % of revenue from existing customers	• Customer dependence • Customer demand	Expansion
Strong financials	High returns and strong cash flow generation See financial review on page 60	• Adjusted EBITDA margin • Cash from operating activities pre-tax	• Growth	Innovation Expansion

The markets where we operate

Data centre operators are investing in the infrastructure required to address the exponential growth of data 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 exponential growth of data and the increasing need for higher data speeds and bandwidth. Data bandwidth has doubled every three years and the volume of data is expected to almost double, once again, over the period 2022-2026[1].

The proliferation of connected devices, mobile phones, social platforms, streaming services, e-commerce, cloud services, virtual and augmented reality, artificial intelligence technologies, and a long list of data intensive applications are causing an exponential growth in the amount of data created, shared, processed and stored. To meet this challenge, the number and complexity of data centres continues to increase, creating growing opportunity for our business.

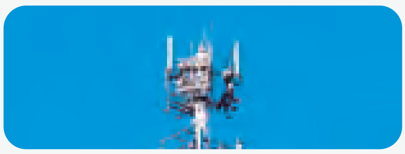


Our core markets

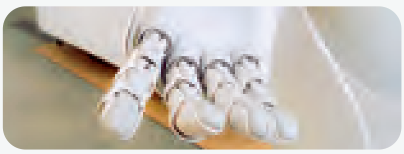
Data centre opportunity:

Data networking

Compute

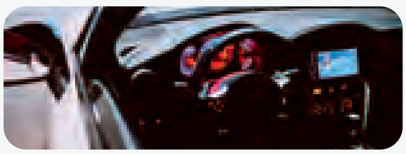


5G wireless infrastructure



Artificial intelligence

Data storage



Autonomous vehicles

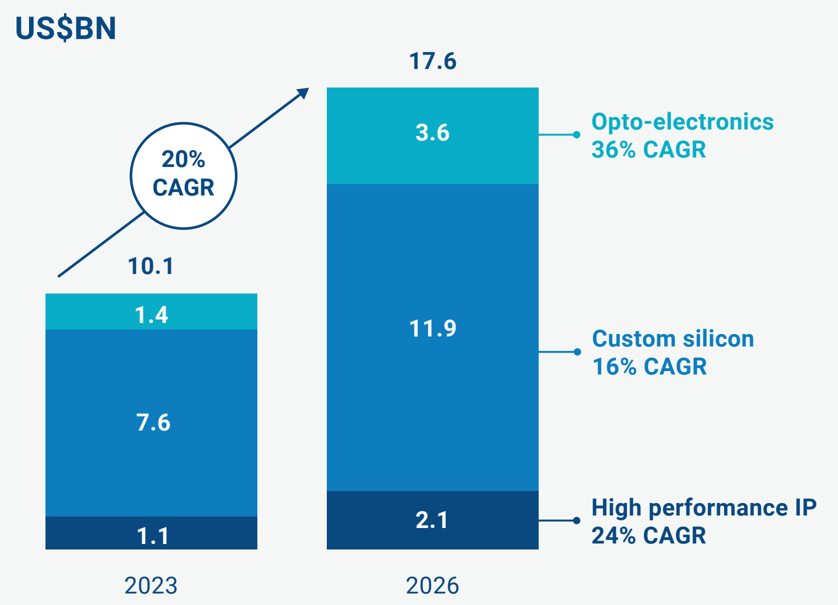
1. The Data Center Journey, From Central Utility To Center Of The Universe (semiengineering.com). Source Statista https://semiengineering.com/thedatacenter-journey-from-central-utility-to-center-of-the-universe/.

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[1].

Alphawave Semi has licensed its IP to the leading semiconductor companies and hyperscalers since its inception. For FY 2022, licences and NRE represented 74% of our revenue.

With the acquisition of OpenFive we entered the custom silicon business. This 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.

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 help meet the increasing demand for higher speeds and bandwidths at a lower cost and reduced power consumption.



Semico Research Corporation, December 2022, IPNest and LightCounting.

Key industry trends

1. Hyperscalers are increasingly developing their own silicon to provide technological advantage, optimise workloads and power efficiency.
2. Data rates double every two years, putting additional pressure on connectivity components.
3. The cost and complexity of chip design continues to increase. Chiplets represent a new architecture paradigm enabling more cost-effective solutions.
4. Changes in data centres (from silo to disaggregated architecture) require specialised low latency connectivity and increased use of opto-electronics.
5. The increasing adoption of artificial intelligence technologies requires higher data speed, bandwidth and lower latency connectivity.

1. Semico Research Corporation, December 2022, IPNest and LightCounting.

Strategy

We are leveraging our technology and expertise to build a leading connectivity company, contributing to the deployment of leading-edge connectivity technology in digital infrastructure markets.

Market leadership

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

Progress in 2022

- Successful tapeout at 3nm including our technology
- OpenFive IP portfolio added c.75 IP products, including memory IP and D2D IP
- Banias Labs acquisition: coherent optical DSP
- Number of employees in R&D increased from 129 to 621

KPI/metrics

89%
of employees in R&D function as % of total

>220
number of IP products

10%
employee turnover

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 2022

- Significant increase in the number of end-customers generating revenue from 20 to 80 in FY 2022
- New customers in EMEA and an expanded customer base in North America
- Working with seven of the top ten semiconductor devices companies[1]

KPI/metrics

80
end-customers in 2022

53%
of revenue from existing customers

Innovation

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

Progress in 2022

- Welcomed OpenFive's custom silicon team
- Silicon tapeouts for next generation 224G, PCI-Express Gen6, HBM3 and UCIe interface IP in both 5nm and 4nm processes
- Alphawave Semi became PCI-SIG 5.0 Integrator's List certified

KPI/metrics

US$185m
FY 2022 revenue

224G
next generation silicon tapeouts

1. By market capitalisation as of 9 January 2023.

In 2022, we made further strategic progress, investing organically and through acquisitions in an enhanced product portfolio and engineering expertise.

The acquisitions of Precise-ITC, OpenFive and Banias Labs, as well as the agreement signed with a leading North American hyperscaler, have enabled significant strategic progress towards consolidating our vision for Alphawave Semi.

Link to risk

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

Link to remuneration

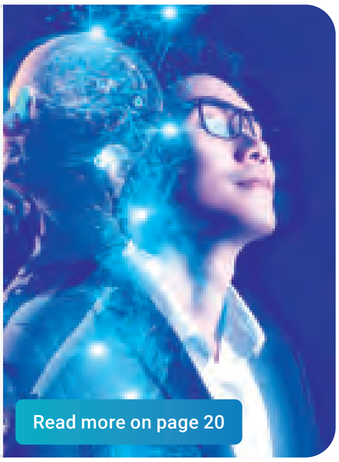
- Adjusted EBITDA (annual bonus)
- Adjusted Basic EPS growth (LTIP)

Link to sustainability

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

Plans for 2023

- Selective hiring in R&D
- Continued effort to support talent across the Company with enhanced HR policies
- Expand foundry partnerships with further design wins at 3nm and beyond



Read more on page 20

Link to risk

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

Link to remuneration

- Revenue (annual bonus)

Link to sustainability

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

Plans for 2023

- Focus on custom silicon opportunities
- Convert pipeline opportunities to revenue with North American customers
- Deliver on multi-year agreement with leading North American hyperscaler

Read more on page 22

Link to risk

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

Link to remuneration

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

Link to sustainability

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

Plans for 2023

- Expand product roadmap including PAM4 and coherent DSP building on broader IP portfolio and IP subsystems
- Focus on higher value custom silicon opportunities
- Develop product roadmap of optical products

Read more on page 24

Market leadership

Monetising our IP through custom silicon – acquisition of OpenFive

In 2022, we acquired OpenFive, marking the beginning of our journey as a vertically integrated business. This acquisition accelerates our strategic goal to scale revenues by further monetising our leading connectivity IP through advanced custom silicon design.

We welcomed a team of over 300 employees with two decades of custom silicon experience and a proven track record, with over 350 successful tapeouts and more than 150 million parts shipped. OpenFive's silicon development team enables Alphawave Semi to offer leading-edge data centre and networking custom silicon solutions, and enhances our chiplet design capabilities.

<25 DPPM
defective parts per million

150m
parts shipped to date

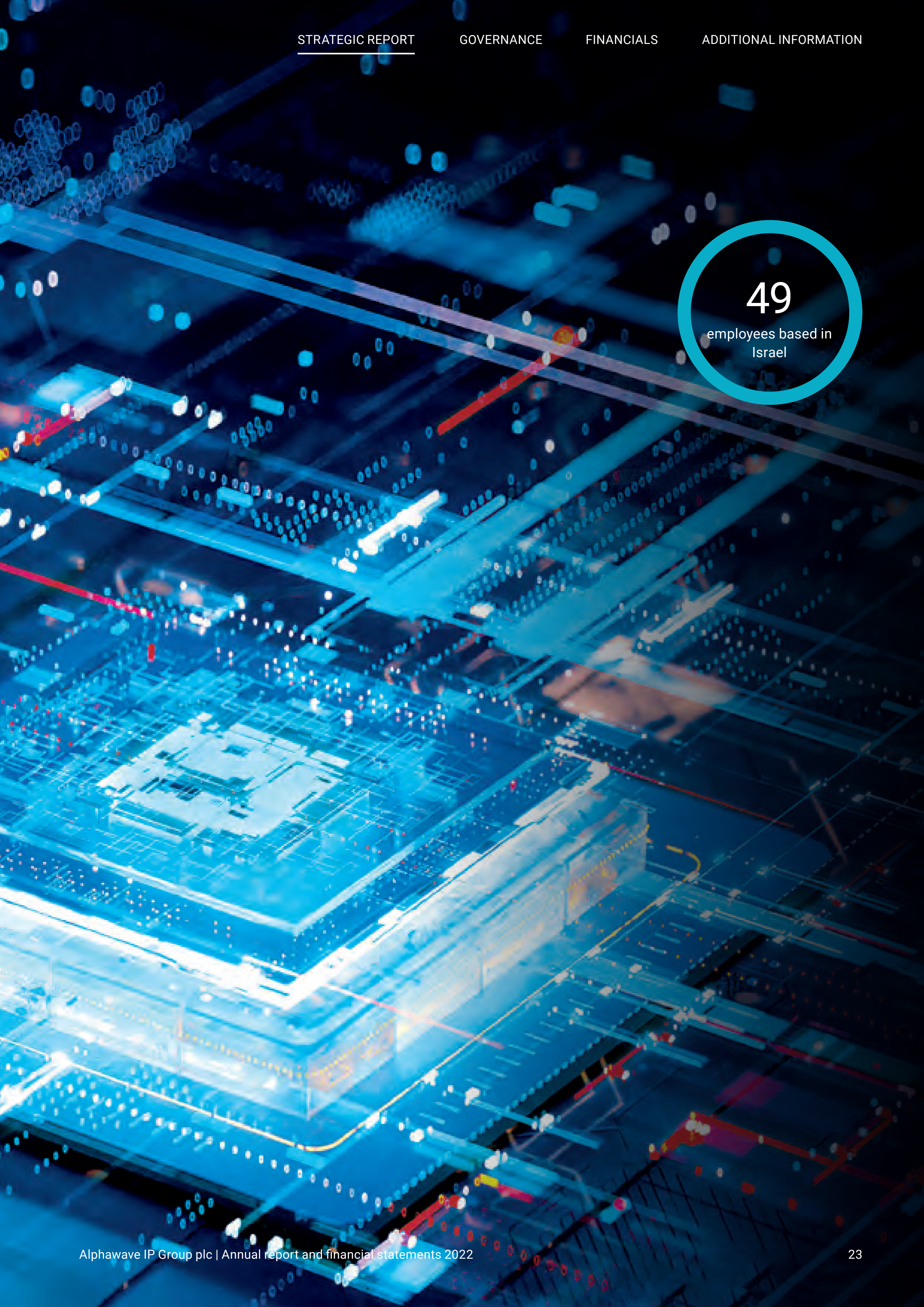
Innovation

Expanding our addressable market – acquisition of Banias Labs

In October 2022, we acquired Banias Labs. The team, based in Israel, has developed a low power implementation of Coherent Digital Signal Processing (DSP) targeting data centres. Coherent technology is a well-established technology which is today used to transmit data across long distances, such as connecting data centres in different locations through optical fibre.

As the amount of optical fibre increases inside data centres, the technology developed by Banias Labs expands our addressable market. The combined technology expertise enables Alphawave Semi to target next generation networks adopting a combination of PAM4 electrical, PAM4 optical and coherent optical solutions.

Alongside this acquisition we also announced a US$300m non-binding multi-year purchasing agreement with a leading North American hyperscaler.



49

employees based in Israel

Expansion

Expanded customer base

In 2022, we significantly expanded our customer base, both organically and through acquisitions.

At the end of 2022, the total number of revenue-generating end-customers was 80, a significant increase compared to the previous year (2021: 20).

In 2022, we worked with leading technology companies, including seven of the top ten semiconductor devices companies, as well as hyperscalers.

In October 2022, we announced a non-binding, multi-year purchasing framework with a leading North American hyperscaler. Alphawave Semi is working on a multi-year roadmap to develop and sell a portfolio of optical products and DSPs, including Coherent DSP technology from Banias Labs.

1. Number of revenue-generating customers as of 31 December 2022.
2. By market cap as of 9 January 2023.

80
number of
end-customers
FY 2022[1]

7 of top 10
semiconductor
devices companies[2]

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 preserve and create long-term value for a wide range of stakeholders.

Applicable external standards

- ISO 9001 Quality Management System Standard for our custom silicon operations.
- Sustainability Accounting Standards – SASB Semiconductor Standard 2018.
- International recognised labour and human rights.

Context and progress in 2022

In our second annual report since IPO we have increased the level of disclosure on a range of ESG activities. During the year we reviewed all relevant policies and adopted supply chain policies from the manufacturing team of OpenFive. Early in 2023, we established the ESG Steering Committee, a multi-disciplinary group chaired by the Executive Chair, with representatives from human resources, governance, risk management and supply chain. The purpose of the ESG Steering Committee is to:

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

The ESG Steering Committee meets on a quarterly basis. Following a period of accelerated business expansion, one of the key areas of focus will be to define a clear baseline from which targets can be agreed and progress can be clearly monitored. The ESG Steering Committee also supports the identification of ESG risks and opportunities, reviews all relevant KPIs and proposes changes when necessary.

Relevant issues (9 of 26) – SASB Semiconductor Standard 2018 risk matrix

Environment	Social Capital	Human Capital	Business Model & Innovation	Leadership & Governance
GHG Emissions	Human Rights & Community Relations	Labor Practices	**Production Design & Lifecycle Management**	Business Ethics
Air Quality	Customer Privacy	**Employee Health & Safety**	Business Model Resilience	**Competitive Behaviour**
Energy Management	Data Security	**Employee Engagement, Diversity & Inclusion**	Supply Chain Management	Management of the Legal & Regulatory Environment
Water & Wastewater Management	Access & Affordability		**Materials Sourcing & Efficiency**	Critical Incident Risk Management
Waste & Hazardous Materials Management	Production Quality & Safety		Physical Impacts of Climate Change	System Risk Management
Ecological Impacts	Customer Welfare			
	Selling Practices & Product Labelling			

Management approach

In 2022, we identified the main sustainability areas for the Company taking into account those identified in the SASB Semiconductor Standard 2018 risk matrix for the semiconductor industry.

- **GHG emissions:** although the nature of our activities results in a low carbon footprint, we are committed to actively reduce it. See our Environmental section on pages 42 to 47.
- **Human capital – employee engagement, diversity and inclusion:** our passion for innovation and technology leadership is reflected in the commitment to our people. Our ability to recruit, develop and retain a diverse pool of talent is key to remaining at the forefront of innovation. See Our People section on pages 35 to 41.

Although not included as relevant issues in the SASB Semiconductor Standard 2018 risk matrix, we also identified the following two areas as relevant sustainability areas for the Company:

- **leadership & governance – business ethics:** we promote responsible business practices, both internally and across our value chain. See the Business Ethics section on pages 52 to 53; and
- **supply chain management:** following the acquisition of OpenFive in September 2022 we extended our business activity into custom silicon. An efficient and responsible supply chain is important to us and our customers. Close R&D/development collaborations across our ecosystem of foundry/OSAT partners, and customers, built on the quality of our technology. See the Supply Chain section on pages 48 to 49.

Other considerations

Environment: as a fabless business model, energy management, water and wastewater management and waste and hazardous materials management are most relevant to our supply chain (see Supply Chain above). Although our own operational carbon footprint is relatively low, we actively pursue to minimise it by, for example, seeking premises which have high energy efficient standards and reducing travel when possible.

Human capital – health and safety: our main activity is the development of connectivity technology. We comply with applicable national health and safety regulations and our economic activity takes place in an office environment. The Company is committed to creating and maintaining a healthy and safe environment in all its offices.

Business model & innovation – supply chain management: as a fabless business model we work with the leading foundries in the industry. This presents us with an opportunity to benefit from their scale and the procedures and policies they have in place to manage issues related to materials sourcing and efficiency. See Supply Chain section on page 48.

Our products contribute towards the reduction of power consumption in data centres and other data intensive applications but are typically incorporated into larger applications (such as servers or switches in a data centre) whose lifecycle management is the responsibility of third parties.

Leadership & governance: we are a relatively new entrant in the digital infrastructure market where there are multiple vendors servicing the needs of a range of customers, from large hyperscalers to start-ups. We aim to maintain our competitive advantage as set out in this report.

Focus areas for 2023

- Agree a baseline from which targets and progress can be monitored.
- Evaluate the right approach and timing of our first materiality assessment.
- Continue our focus on recruitment, talent management and retention to support our growth strategy.
- Following the acquisition of OpenFive, we will evaluate possible areas of improvement within supply chain related topics and continue to make our contribution towards a responsible supply chain.

Stakeholder engagement

We aim to embed sustainable and responsible business practices into the way we act internally and 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 pages 31 to 33.

Customers

Definition

Our customers include some of the largest technology companies globally, who trust us to provide technology that may be critical to the future of their businesses.

Our technology enables our customers to develop and sell, or use for their internal operations, the next generation of semiconductors for data transport, processing and storage.

How do we engage with them

- 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

How do we distribute value created?

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

Employees

Definition

Our success is entirely dependent on our ability to attract, retain and motivate talented staff.

We seek to create an entrepreneurial and dynamic culture, working with leading-edge technologies and where the best in our sector want to work. We create an environment in which diversity is the norm and where our employees can share their ideas and concerns.

How do we engage with them

- Annual employee survey
- Employee reviews
- 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
- Terms of employment
- Learning and development
- Working environment
- Flexible working practices and spaces

How do we distribute value created?

- US$61m expensed in salaries and performance incentive programmes
- Employee benefits
- Training and development programmes

See Our People section on page 35

Investors

Definition

We maintain a regular and open dialogue with our current and prospective shareholders.

We target an investor base that looks to hold our shares for the long term. We engage with shareholders to help them understand our technology, business model and strategic objectives, and how those can generate long-term and sustainable value.

How do we engage with them

- AGM
- Financial reporting
- Investor roadshows and conferences
- Ongoing investor relations engagement
- Investor survey
- Capital Markets Day

Frequency

Ongoing

What do they care about?

- Competition for talent and diversity
- Technological trends
- Company strategy and performance
- Capital allocation
- Governance
- Key sustainability areas such as innovation, remuneration, diversity and talent management

How do we distribute value created?

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

See Our Markets section on page 16 and ESG section from page 34

Partners and suppliers

Definition

Our partners and suppliers are typically major players within the semiconductor industry, including companies such as TSMC, Samsung and Intel. Our access to their technology is vital to our success and our ability to deliver to our customers. We have fostered strong and collaborative working relationships with our partners and suppliers over time.

How do we engage with them

- Regular project meetings
- Annual/quarterly reviews

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

How do we distribute value created?

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

See Supply Chain section on page 48

Stakeholder engagement continued

Community

Definition

Our business is grounded in the communities it operates in. We work together with universities and professional bodies, as well as local and national organisations.

We also aim to make a positive contribution to the communities in which we operate through technological advance and the enhancement of the local skills pool. See more about our internship programmes on page 39.

How do we engage with them

- Community projects
- 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
- Donations and other types of support
- Contribution to research and the advancement of technology

How do we distribute value created?

- Contributed approximately US$30,000 towards community projects
- 47 interns as of 31 December 2022
- Creating stable and high-quality jobs

See Community Engagement section on page 54 and Our People section on page 35

Governments and regulators

Definition

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.

We seek to maintain good relations with regulatory agencies in the regions in which we operate, industry bodies and trade associations.

How do we engage with them

- Government consultations
- Regulatory enquiries
- Industry/sector groups

Frequency

Ad-hoc

What do they care about?

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

How do we distribute value created?

- US$20m paid in corporate tax
- Active engagement with regulators and other bodies to understand their requirements and educate them on industry impact of regulatory changes

See Environmental Responsibility on page 42 and Business Ethics section on page 52

Section 172

The Board and our stakeholders

The following section describes how the Directors take into account stakeholders and other matters in carrying out their duties and the impact on decision-making. By considering our stakeholders in key business decisions we ensure that we continue to build trust and maintain their ongoing support. During this financial year the principal decisions made by the Board as a whole have considered the need of all stakeholders and met the expectations of investors and the market, examples of which can be found on the following pages.

In a year of significant strategic progress, our purpose remains intact – to create economic and social value for all our stakeholders in the pursuit of our ambition to become a leading provider of connectivity technology. Our stakeholders are central to our business and acting in a way that promotes the long-term success of the business, whilst having regard for the impact of our decisions on this group, is fundamental to our strategy.

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 s172 (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 strategic report on pages 28. 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 receives 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 the role that the major business groups play in the future strategy of the Group. The Board was briefed on the impact of high-speed and power- efficient connectivity technology as a key enabler to growing the customer base.

Our suppliers

Suppliers have a key role in allowing us to deliver our strategy and as a fabless business 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 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, the AGM provides the main form of interaction between the Board and the shareholders. The AGM held in June 2022 and EGM held in December 2022 were both held as hybrid meetings. This allowed for greater participation from 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. In December 2022 the VP of Human Resources presented to the Board on the outcome of the Great Place to Work employee engagement survey. 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.

Section 172 continued

During the year, the Board made decisions towards implementing our vision of being the leading provider of connectivity technology for digital infrastructure markets.

In support of this vision the Board had to make key decisions that impacted various stakeholders. Below we show how the Board considered stakeholders in making these decisions.

M&A activity

Precise-ITC, OpenFive and Banias Labs

Background: The Board reviewed the business case for the acquisitions of three companies in the context of consolidating the vision for the business to become a vertically integrated business.

Shareholders: When considering the proposals, the Board carefully reviewed the need to deliver value to shareholders. In particular, weighing the need for the short-term strategic gain against the longer-term shareholder value. The Board debated the use of debt to fund the acquisition of Banias Labs, alongside the overall capital stability of the Company. The Board agreed that a debt raise in the current market would be beneficial given the exchange rate between sterling and the US dollar and in the context of not depleting the balance sheet.

Customers: The Board was mindful of the current uncertain economic environment but that core markets continued to provide compelling opportunities for growth. That, with an enhanced product portfolio, the Company could continue to gain greater scale and further monetise its IP. It was agreed that by enhancing and expanding our product portfolio, there would be greater opportunities at the leading edge of connectivity. The Board took into account that the acquisitions, in particular of OpenFive, substantially expanded the customer base.

Employees: The Board considered that new employees would be welcomed with all the acquisitions. They would have varying degrees of expertise which would assist with the 'land and expand' strategy. Infrastructure for the new employees was considered, noting that there would be various offices in new locations, and some of the existing offices would be improved.

The cost associated with this needed to be considered and weighed against financial targets. The Board stated that a key achievement would need to be the successful integration of all new employees.

Communities: The Board was conscious of the Company's developing ESG strategy and wanted to consider how new geographical locations would impact its delivery. In addition, local practices needed to be acknowledged and consideration given to the integration with the Company's core values.

Suppliers: The Board was aware of the ongoing constraints on the semiconductor supply chain. The Board also explored how best to collaborate with suppliers who would be directly associated with the Company.

Regulators and governments: In recognition of the Company's multiple jurisdictions, the Board is supported by external advisers to comply with local regulations and if applicable any implications on the Company's listed obligations.

Outcome: The Company's strategy of M&A and the acquisition of three companies enables a vertically integrated business. In having regard for the interest of all our stakeholders, the Board decided that the acquisition of the three companies would promote the long-term stability of the Company and therefore promote its success for the benefit of its members as a whole.

Workforce engagement and development

Background: The Board wanted to identify ways in which the Board could engage with the Company's employees, noting that the Company was young and geographically diverse. To this end they decided, along with management, to appoint Michelle Senecal de Fonseca as the workforce NED.

Shareholders: Having an engaged and motivated workforce, with a high retention rate, would be of benefit to the Company and therefore contribute to long-term return to shareholders.

Employees: The Board supported the use of various programmes and initiatives which would allow employees to develop and enhance their professional development, at all levels of career progression.

Customers and communities: The Board knew that enhancing the engagement within the employee base would be of benefit to the customers and communities that the employees interacted with, therefore raising the profile of the Company and improving customer sentiment.

Outcome: Four initiatives to improve employee engagement were identified and implemented during the year, including a 'Females in Semiconductors' advocacy group. The Board, in making decisions on employee engagement, wanted to champion diversity and encourage in-house development and agreed that this would be of benefit to all stakeholders.

2023 Plan

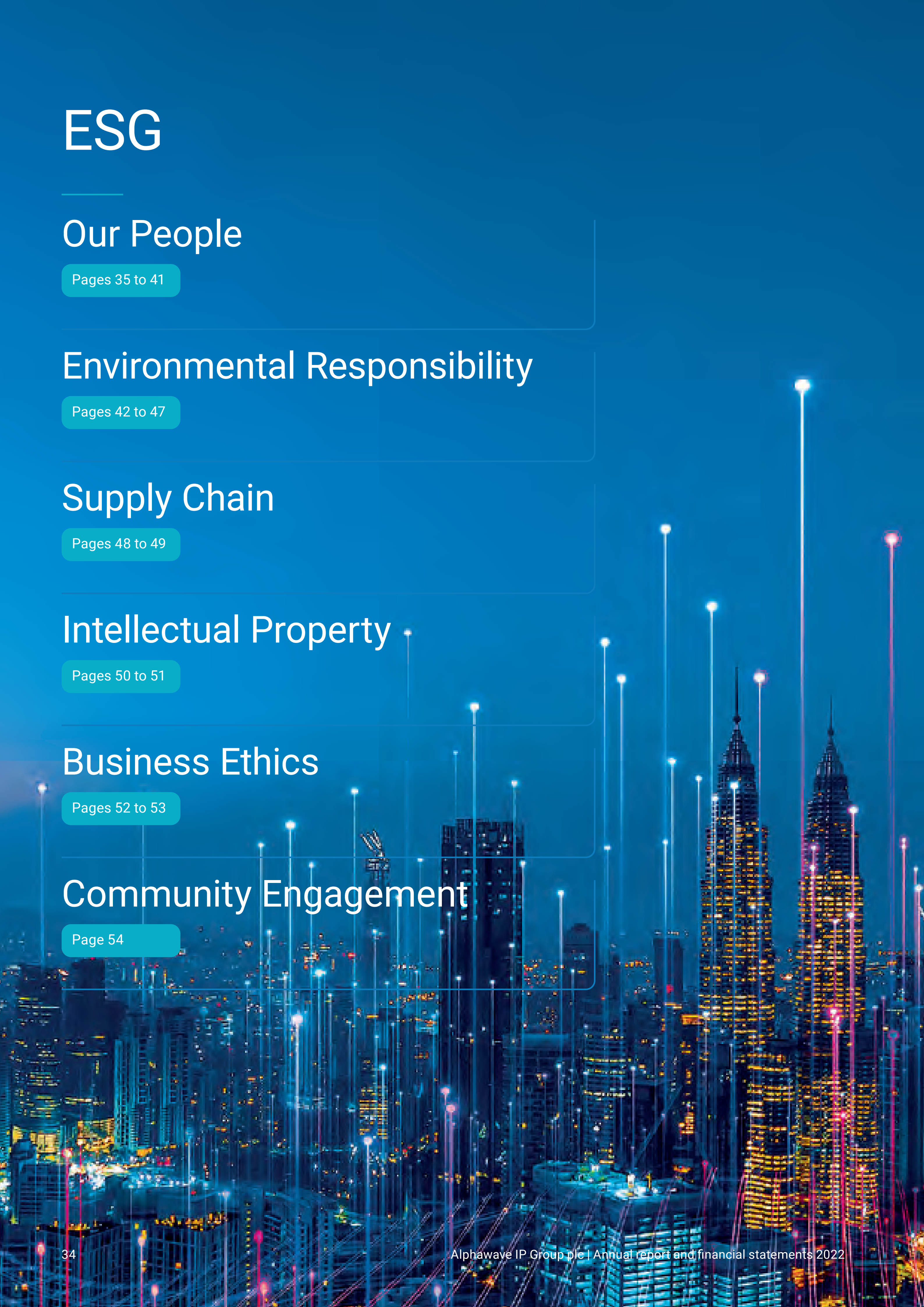
Background: Management had presented the Board with the 2023 Plan, which had been developed in liaison with the Board and its committees. At the December Board meeting, the Board as a whole was required to consider the key values driving the vision and how the execution would impact our stakeholder groups. This was the main business of the meeting, with all Directors in attendance.

Employees: The Board recognised that by investing in new teams and technologies, through the acquisitions of Precise-ITC, OpenFive and Banias Labs, we would expand and extend our technology leadership, allowing us to continue to develop and grow in-house talent.

Shareholders: Moving forward as a semiconductor company, the Board noted that the Company would be measured on revenue and profitability. The Board accepted that the Company had aligned the long-term business model to maximising both, with a goal to increase revenue.

Customers: As executing the 2023 Plan would provide connectivity solutions in a range of form factors – IP, custom silicon, chiplets and opto-electronics products, the Company would maximise value for its customers. The Board encouraged the enhanced customer offering as it would increase customer value and drive scale.

Outcome: The Board approved the 2023 Plan and agreed that it supported the Company's strategy and vision for the coming year. The vision was the right one for the Company and its shareholders, noting the key areas of risk and uncertainty and how they could be monitored to ensure that all stakeholders were considered.



ESG

Our People

Context

In 2022, the Human Resources (HR) function played an important role in support of our growth strategy, enabling continued hiring and the integration of over 540 new employees, of which almost 400 came from business acquisitions.

As a result, our total employee closing headcount grew from 149 in 2021[1] to 695 as of 31 December 2022.

Supporting this level of business expansion while ensuring the wellbeing of all our employees was a key priority. For this purpose we hired three new employees in the HR team.

The HR team remains focused on supporting the successful execution of our business strategy, while creating an inclusive work environment in which innovation and innovators can thrive.

Management approach

Responsibility for our people sits with the Vice President Human Resources (HR). She is supported in this role by the wider HR team, who focus on:

- the application of human resource policies, tailored to reflect local legal requirements, business priorities and labour markets;
- a Code of Ethics and Business Conduct, which sets out the required basic standards guiding our behaviour, including in relation to labour and human rights;
- talent planning and development;
- diversity and inclusion to facilitate an environment in which different perspectives are valued;
- delivering employee engagement and communication strategies to support business objectives;
- enabling knowledge sharing and collaboration;
- caring for the wellbeing of our employees and creating a supportive environment; and
- rewarding high performance through effective and targeted compensation and benefits programmes that enable our employees to share in the value they create.

Our people are our most important asset and a key component of our success as a company. 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 of the foundations of diversity and inclusion, where our employees can share their ideas and concerns.

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. In 2022, we opened new offices in Ottawa, Canada, and in San Jose, US. In December 2022, we began the refurbishment of our offices in Pune, India.

Our employees are mostly located in North America (Canada and the US), India and Israel. How we treat our employees and how our employees engage with each other impacts not only our business, but our stakeholders and the communities in which we operate.

We support internationally acclaimed 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.

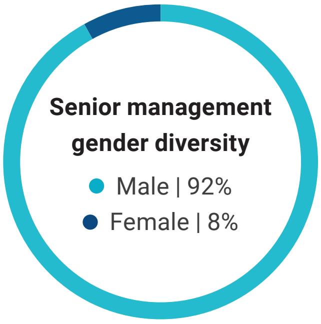
The management team interacts daily with all employees and operates a dedicated HR function at its key sites. Management has implemented employee policies and procedures that are appropriate for the size of the Company and meet the requirements of applicable local legislation.

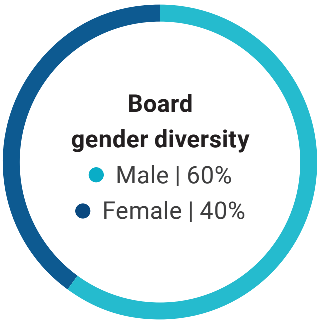
Our goal, reflected in our policies, is that our employees can openly communicate and share any ideas and concerns with management regarding working conditions and management practices without fear of discrimination, reprisal, intimidation or harassment. The Company has in place a formal grievance escalation procedure which is covered 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/).

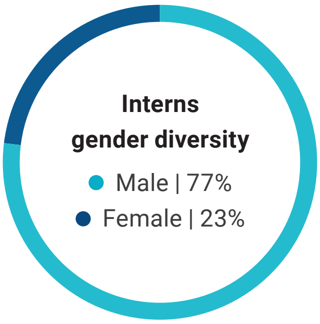
1. FY 2022 and FY 2021 headcount numbers throughout the report exclude interns. In FY 2021 there were five interns who were previously reported as R&D headcount.

Our People continued

Diversity







Number of employees

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

FY 2021	Female	Male	Total
Board	4	6	10
Total employees	21	128	149
Senior management[1]	–	5	5

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

Number of employees (closing)	Employee turnover	Employees based outside of North America
695	10%	379
FY 2021: 149	FY 2021: 7%	55% of total number of employees

Performance

Our Equal Opportunities and Dignity at Work Policy (see https://awavesemi.com/wp-content/uploads/2023/04/Equal-Opportunities-and-Dignity-at-Work-Policy-v2.pdf) 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 https://awavesemi.com/wp-content/uploads/2022/10/policy-against-trafficking-of-persons-and-slavery.pdf

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 https://awavesemi.com/company/esg/).

Our People continued

Key issues/initiatives

Employee wellbeing
The Company has the wellbeing of all its employees at heart. During 2022, our employees continued to work following a hybrid model, working remotely and in our offices.

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.

The Company has in place a Right to Disconnect Policy (https://awavesemi.com/wp-content/uploads/2023/04/The-Right-to-Disconnect-Policy-2022.pdf) 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 while 'on call'.

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. Our in-house experts have a wealth of knowledge and experience. 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 has an employee education programme in place which reimburses employees upon completing relevant courses successfully. Employees identify their learning and development needs on a regular basis (both technical and non-technical) and agree these with their line manager.

Leadership development
In 2022, we introduced a new leadership mentor programme in which Board members are paired up with high-potential leaders in the organisation. The programme consists of monthly meetings covering a range of topics most relevant to each individual.

We believe this is a great way to leverage the experience and expertise of our Board to support the development of the next wave of leaders.

Diversity and inclusion
The majority of our independent Board members are women and 20% of our employees are female.

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 the 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 https://awavesemi.com/wp-content/uploads/2023/04/Equal-Opportunities-and-Dignity-at-Work-Policy-v2.pdf.

Alphawave University – A roundtable discussion with Susan Buttsworth

Our Non-Executive Director (NED) Susan Buttsworth was the main speaker in a virtual meeting with employees, part of the Alphawave University programme. As well as presenting how she became a Board member, Susan also explained the role of NEDs and how it ties in with what employees do. This session was extremely well attended and employees had a chance to ask questions and engage in a lively discussion with Susan.

Internship programme

Alphawave Semi has internship programmes in Canada and India, the two countries with the highest number of employees. As of 31 December 2022, there were 47 interns in the Company.

In Canada, we welcome interns from the universities of Toronto and Ottawa and the programme runs for a period of twelve to 16 months. As of 31 December 2022, there were ten interns in Canada, of which three were female.

The programme seeks to encourage the next generation of engineers and innovators, giving them an 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 in India 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 2022, there were 37 interns in India. Around 40% of the existing engineering employees in India joined the Company through this programme. The programme engages with universities such as KLE Tech University, University of Burdwan and CVR College of Engineering in Hyderabad. Students come from different socio-economic backgrounds and approximately 22% of the 2022 interns were female.

Our People continued

Key issues/initiatives continued

Welcoming the teams of Precise-ITC, OpenFive and Banias Labs
In 2022, we welcomed almost 400 new employees to the Company as a result of the acquisitions of Precise-ITC, OpenFive and Banias Labs. Precise-ITC employees are based in Ottawa, Canada. The team from OpenFive is primarily located in Bangalore and Pune, India and the team from Banias is based near Tel Aviv, Israel. The challenges of ensuring the smooth integration of such a high number of employees were somewhat eased by the lack of geographical overlap.

The successful integration effort of all our new employees was one of the key achievements of the HR team in 2022.

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.

This includes an in-depth analysis of the total compensation offered by our direct competitors, both global and local, to ensure that our offering remains competitive. This includes a range of other non-salary benefits and work/life balance.

In 2022, we introduced best-in-class employee benefits prioritising employee health and wellbeing in Canada, the UK and India (such as extended health insurance benefits and access to mental health support). We are planning to roll out similar benefits in the US and Israel in 2023.

Our compensation programmes include long-term share and short-term cash-based bonus plans that allow us to differentiate levels of reward, recognising critical skills and performance levels. In early 2023, the Company introduced an enhanced performance appraisal process with clear objectives across the new businesses and aligned with the overall Company objectives agreed by the management team.

The majority of our employees participate in our long-term incentive programme to engender a shared sense of ownership. The majority of the hires we made in FY 2022 were given equity incentivisation through our long-term employee share programme.

In December 2022, our shareholders approved an amendment to the dilution limits in our Long-Term Incentive Plan (the ‘Share Plan’), by removing the separate 5% dilution limit for discretionary awards, such that all awards granted under the Share Plan are subject to a 10% dilution limit in any five-year period, with no separate limit for discretionary awards. This will ensure we can continue to issue awards to employees under the Share Plan in the ordinary course, which in turn helps us maintain innovation and growth for the long-term benefit of our shareholders.

Employee engagement and communication strategies

We encourage 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 August 2022, we undertook our first employee survey, which was conducted by Best Places to Work in the US, Canada and the UK. Employees in India and Israel joined the Company after the first survey took place, through the acquisitions of OpenFive and Banias Labs (September and October 2022, respectively).

The response rate was 80% and the feedback from our employees was extremely positive. Amongst some of the positive messages, our employees trust the leadership team and are willing to go the extra mile to get the job done.

We have also identified that employees would like to keep informed on a more regular basis about important Company issues and changes, as well as continue to enhance work/life balance and development programmes.

The results of the survey were presented back to the Board and employees, and have informed changes to, for example, the frequency and content of our internal communications.

The Company is now certified as a Great Place to Work® in Canada and the US. We currently do not have the minimum number of employees required in the UK to be certified.

The CEO has regularly appeared in virtual meetings to all employees, providing a summary of business performance, sharing his views, and addressing questions on other topics. In those virtual meetings, the CEO welcomed employees from Precise-ITC, OpenFive and Banias Labs.

Michelle Senecal de Fonseca was appointed in 2022 as the Board's designated Non-Executive Director representative for workforce engagement. For more information on employee engagement activities undertaken in FY 2022 please see page 33.

Forward focus areas in 2023

- Rollout of best-in-class employee benefits in the US and Israel.
- Extend annual employee survey to all new locations.
- Introduction of an enhanced performance appraisal process.
- Rolling out enhanced HR systems across the Company.

Alphawave University – Machine learning with our CTO, Tony Chan Carusone

During the talk, our Chief Technology Officer, Tony Chan Carusone, explored how machine learning is already being applied to some of our most challenging optimisation problems. The call was well attended and employees raised interesting questions on the impact of machine learning on the long-term potential for the business as well as to their daily activities.

Environmental Responsibility

Context

Our connectivity technology contributes towards the development of a more efficient digital infrastructure.

Although fabless, we are making ongoing efforts to minimise our carbon footprint, which has significantly changed in 2022 following a period of rapid business expansion.

Management approach

We operate responsible practices within our own business. Following the expansion of our business into custom silicon with the acquisition of OpenFive in September 2022, we are seeking to promote them across our supply chain.

Responsibility for environmental performance sits with the Board. We govern our environmental responsibility through the application of the ESG Policy which was approved in early 2023 and addresses our key priorities. The Company is committed to carbon neutrality.

In 2022, we made further disclosures following the Semiconductors Sustainability Accounting Standard version 2018-10 (see SASB table on pages 200 to 202).

Performance

Metrics and targets

For the second 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 Guidance'. 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. In addition, we use the intensity ratio per employee as defined in the table below. We also consider ESG ratings that include climate-related risk management indicators.

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 2022 reporting year. Due to the recent expansion of the business FY 2022 emissions cannot be set as the baseline for the Group. For FY 2022, the scope includes UK and non-UK operations, including India, Canada and the US. The emissions from our acquisition of Banias Labs, based in Israel, have not been included as the acquisition closed late in the year. The 2022 baseline includes annualised figures for those locations in scope, including those which we acquired through OpenFive on September 2022. Scope 1 includes emissions associated with gas consumption. Scope 2 includes emissions associated with electricity consumption. 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.

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 committed to minimising and reducing our carbon footprint.

Activity	Baseline year 2021	**Baseline year 2022**
In metric tonnes CO_2e		
Total Scope 1 emissions (natural gas)	14.18	**208.86**
Total Scope 2 emissions (electricity consumption)	6.33	**341.49**
Total Scope 3 emissions (transmissions and distribution, non-controlled electricity, hotel stays, homeworkers, well to tank, flights, hire car, taxi and grey fleet travel)	45.33	**601.67**
Total gross (Scope 1, 2 & 3) location-based emissions	65.84	**1,152.02**
Intensity ratios		
tCO_2e (gross Scope 1, 2 & 3) per employee	0.49	**1.78**
tCO_2e (gross Scope 1, 2 & 3) per US$m revenue[1]	0.73	**nm**
Underlying energy consumption (kWh)		
Total global energy consumed	285,414	**2,618,460**
Total UK energy consumed[2]	273	**na**
UK-based emissions	0.1%	**nm**
UK-based energy consumption	0.1%	**nm**

1. tCO_2e (gross Scope 1, 2 & 3) per US$m revenue reported as nm in 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 US. Considering the annualised contribution of these locations allowed for a more meaningful tCO_2e (gross Scope 1, 2 & 3) per employee comparison.
2. UK energy consumed in 2022 was calculated based on the kWh for home-working and it represented an insignificant portion of the total energy consumed. In 2021 it was calculated based on grey-fleet car mileage.

Environmental Responsibility continued

Performance continued

Metrics and targets continued

In the second half of 2022, two of our acquisitions, OpenFive and Banias Labs, significantly changed the perimeter of our business activity, from a pure IP player to a fabless provider of connectivity semiconductors. In addition, our headcount increased from 149 to 695 employees based in countries where we did not have any presence before, such as India and Israel. For these reasons, we are planning to use our 2023 emissions to establish a baseline carbon footprint to identify opportunities for improvement over the short, medium and long term and set specific reduction goals in 2024.

Alongside this, we are gradually rolling out activities to ensure we minimise our GHG emissions:

- actively manage e-waste, with robust product lifecycle management programmes for our computer and IT resources;
- reducing business travel to when it is essential;
- locating our offices in energy-efficient buildings and where possible sourcing from renewable energy; and
- offsetting our GHG emissions (Scope 1, 2 as well as travel included in Scope 3).

Our reporting is consistent with the recommendations of the Task Force on Climate-related Financial Disclosures (TCFD) and provide the following 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.

See full compliance statement on page 199.

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 fabless business model, the Group’s exposure to climate-related risks is considered to be low and not currently classified as a significant risk. Our overall risk management process is described on pages 66 to 69. In addition, the ESG Steering Committee supports the identification of ESG risks and opportunities.

We have determined our climate-related risks and opportunities as follows:

Related to the transition to a low-carbon economy

Risks

Policy and legal Low

Alphawave Semi is a young and high-growth company setting the foundations of its reporting on a range of environmental, social and governance topics. In 2022, we used the Sustainability Accounting Standards to guide our reporting.

In 2022, our business model expanded from IP to silicon. We continue to adapt and comply with regulatory standards, including evolving product standards.

As a fabless 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 Low

Our technology contributes to improving the energy efficiency of the digital infrastructure, enabling savings in the amount of energy required to transmit data in data centres or 5G base stations.

Related to the transition to a low carbon economy continued

Risks

Technology Low

Alphawave Semi is at the forefront of 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 Low

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. Our foundry partners are the leading manufacturing companies in the industry and continuously invest in the adoption of next generation manufacturing technologies.

Reputation Low

Although our direct carbon footprint is relatively small compared to other business activities, we have committed to work towards achieving carbon neutrality.

In 2023, we intend to baseline our activities and define a clear level from which we can define specific environmental goals.

Opportunities

Energy source Low

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.

Our premises in Pune and Bangalore, India, which we brought in with the acquisition of OpenFive in 2022, were evaluated.

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

Products and services Medium

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.

Markets Medium

We work with the leading companies in the semiconductor industry, as well as hyperscalers.

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

We have not identified any opportunities to access new low carbon emission markets.

Environmental Responsibility continued

Related to the physical impact of climate change

Risks	Opportunities
Acute risk (event driven)	Low to medium
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 (such as changes in temperature, wind patterns, or water-related). We have not yet formulated a science-based study to assess current and future climate risks, acute and chronic, in our most critical locations. The purpose of such a study would be to inform the risk assessment of business interruption, mitigation and adaptation plans, as well as any other resilience issues.	All our employees can work remotely and the majority of our offices are located 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 like TSMC, which follow the recommendations of the TCFD and have initiatives in place to manage these risks. Our key assets are our employees, our intellectual property and our expertise.
Chronic risk (long-term shifts in climate patterns)	Low to medium
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 business model relies on our ability to keep at the forefront of connectivity technology for digital infrastructure markets such as data centres, artificial intelligence or 5G.

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.

Governance
The Board has overall accountability for the management of risks and opportunities, and the Board's consideration of significant risks impacting the Group includes assessment of risks associated with climate change (pages 44 to 46).

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 environmental activities.

In 2022, we hired our Global Head of Investor Relations, who is also responsible for leading our climate change agenda and managing our policies and practices across sustainability and ESG matters. Our Senior Facilities Specialist is responsible for all our facilities and our IT Director is responsible for our IT resilience and IT end-of-life policies.

Strategy

We have not identified any short-term 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.

Our exposure is mitigated by the fact that we are a low carbon intensity business, delivery of our technology to customers is through virtual and not physical means, and our value chain has worked effectively through the COVID-19 pandemic, to execute remotely and from alternative locations. Therefore, we regard our exposure to direct physical climate-related risks as low.

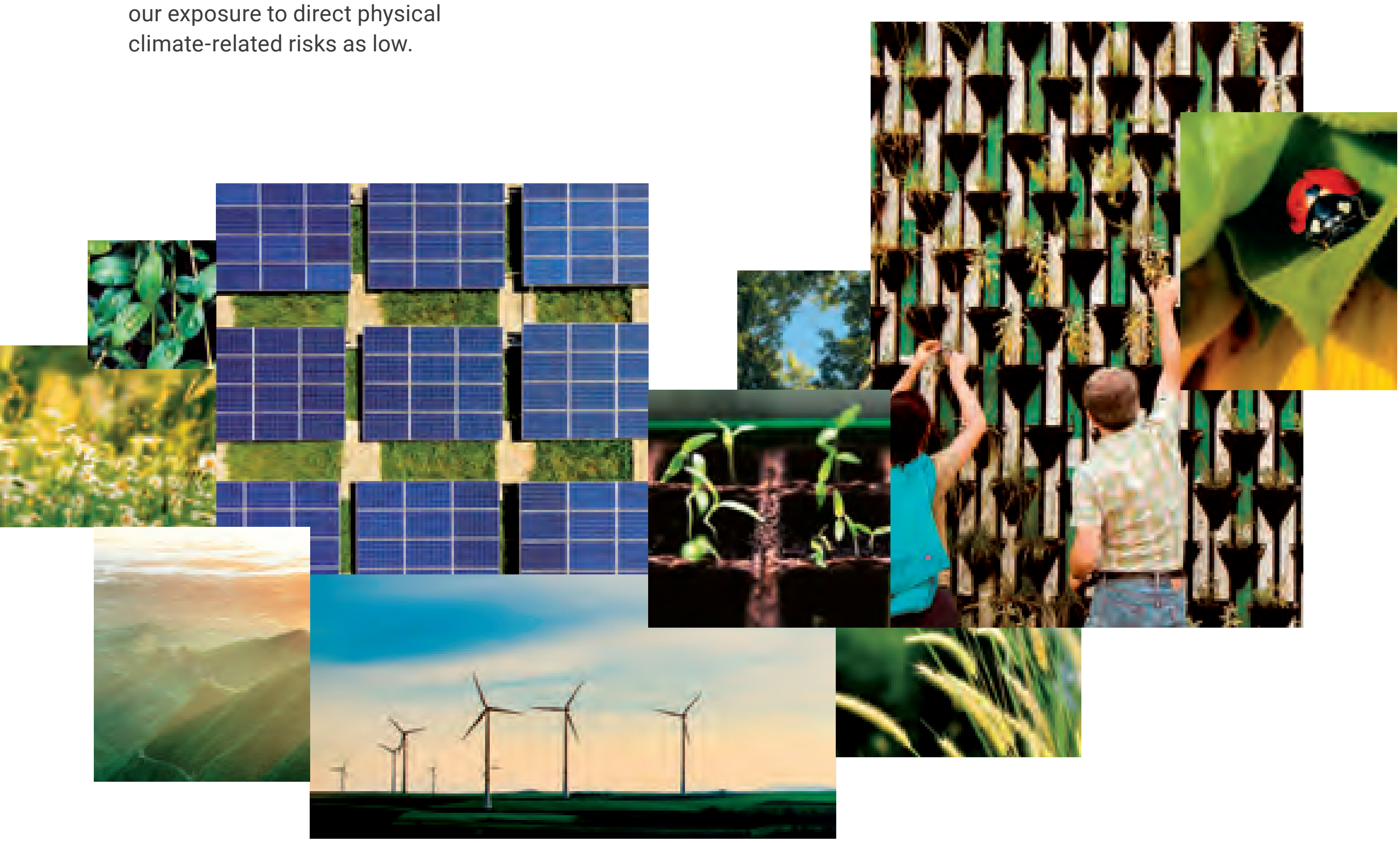
Further, the impact of any transitional changes upon the Group and its operations is considered to be low compared to those businesses that have more direct dependencies on manufacturing, distribution or fossil fuels.

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 are not expected to have a material impact on the longer-term viability of the Group.

Furthermore, 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.

Forward focus 2023

- Develop training and reporting requirements to collect and monitor emissions data across the Group's locations on a quarterly basis.
- Develop emission-reduction strategies for each of our main locations.
- Set baseline using 2023 emissions data.
- Evaluate additional requirements to undertake climate-related scenarios.



Supply Chain

Context

With the acquisition of OpenFive in September 2022 we welcomed a team of engineers with custom silicon expertise. This included a team responsible for managing the manufacturing process that is outsourced to foundries as well as semiconductor assembly and test (OSAT) partners.

As a fabless business, successfully managing our supply chain is important in ensuring our commercial success.

It reflects our current effort to not just minimise any reputational, commercial or contractual harm but also the importance given by stakeholders to the need for our company to identify and proactively manage related sustainability impacts.

As well as minimising the potential disruption risk, this also includes certain 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 programmes in place.

Management approach

We outsource the production of our semiconductors to the leading companies in the industry, such as TSMC. They 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/#supply-chain-management.

Our Vice President of Silicon Operations is responsible for all manufacturing-related activities, including the management of our foundry, assembly and test partners.

We manage our value chain through:

- requiring all our fabrication, assembly and test partners to be ISO 9001 certified;
- screening all partners against our manufacturing partner assessment survey;
- annual audits (audit-light approach) of our major partners through the assessment survey checklist including 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; and
- weekly business and performance reviews with our regular partners 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 that the products supplied meet all requirements.

In 2022, we performed eleven audits, covering the majority of our manufacturing partners as well as our main foundry partner.

Performance

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. 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) from 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 Mineral Policy in place which is available on our website: https://awavesemi.com/wp-content/uploads/2022/11/QAP-0019-01_Conflict-Free-Minerals-Sourcing-Policy.pdf

Alphawave Semi extends this obligation to our suppliers, to reasonably assure that the tantalum, tin, tungsten 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.

Since we became a silicon provider in 2022, we have not identified any instances where tungsten, tin, tantalum and gold (3TG) that are integrated into our products have supported armed groups in the Democratic Republic of the Congo (DRC) or adjoining countries. All our 3TG minerals are from Conflict Minerals compliant smelters.

Environmental management

It is important that our fabrication partners demonstrate environmental leadership. 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 will have an ever-decreasing impact on the environment, world-wide.

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 2023

- Continue to deliver high levels of operational performance (On Time Delivery).
- Evaluate possible areas of improvement, such as establishing a Supplier Code of Conduct.
- Expand the team to support the Company’s growth strategy.

Case study
Alphawave Semi is a member of TSMC’s Value Chain Alliance

TSMC’s Value Chain Alliance (VCA) programme aims to serve a broader range of customer. Through the acquisition of OpenFive, Alphawave Semi’s custom silicon business is a member of the VCA.

As a VCA member we work closely with TSMC to help system companies, ASIC companies and emerging start-up customers bring their innovation to production.

We integrate design enablement building blocks within TSMC’s Open Innovation Platform® (OIP) and provide specific services at each link in the semiconductor value chain.

For more information see: https://www.tsmc.com/english/dedicatedFoundry/oip/value-chain-alliance.

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.

Management approach

We are advancing wired connectivity technology for digital infrastructure. Given the rapid evolution of technology and increasing 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 2022 we expensed US$69.4m of R&D activities or 37% of revenue (FY 2021: US$29.4m or 33% of revenue).

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

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.

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

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. Together, these address issues such as data security and incident management;
- 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 culture to foster innovation and support 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$2,000 bonus shared equally among inventors.

In 2022, we awarded the first Alphawave Innovation Award. The award recognised three innovators for an invention that lowers the power consumption of our DSP products. We look forward to recognising many more of the outstanding innovations across the Company in 2023 and beyond.

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 CO_2-eq in 2020, equivalent to 0.9% of energy-related GHG emissions or 0.6% of total GHG emissions[1]. Connectivity accounts for much of the power in data centres, and our technology is helping to drive that down.

Reliable and power-efficient data transmission is at the core of industry efforts to improve energy efficiency and help reduce climate impacts. As published by the Global Semiconductor Mobile Association in the State of the Industry on Climate Action 2022 report, artificial intelligence, machine learning and virtualisation are helping to optimise power use in equipment, centralising network resources (enabling synergies) and avoiding unnecessary heating or air-conditioning[2]. Our technology enables the flow of data necessary to enable this.

Minimisation of negative product impacts

We are advancing connectivity technology and operate at the bleeding edge. 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.

In addition, and as described above, we aim to make our integrated circuits as energy-efficient as possible – while also enhancing the energy efficiency of the digital infrastructure into which they are incorporated.

Focus areas in 2023

- Agile innovation recognised in our core values.
- Integrate IP procedures and policies across the Company.
- Fostering collaboration across teams to foster more innovation.

PipeCORE PCI-Express and CXL PHY

PipeCORE PHY IP is a high-performance, low-power, PCIe Gen1 – Gen6 PHY, that is capable of also operating at 64Gbps PAM4 PCIe Gen6 rates. The PCIe 6.0 specification **doubles the bandwidth and power efficiency of the prior generation**.[3]

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/Moble-Net-Zero-State-of-the-Industry-on-Climate-Action-2022.pdf.
3. https://pcisig.com/pci-express-6.0-specification.

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 national legislation of our host societies, including those relating to anti-bribery and corruption.

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

We manage business ethics through the application of the Code of Ethics and Business Conduct, which 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 https://awavesemi.com/company/esg/. Our Code of Ethics and Business Conduct is also available at https://awavesemi.com/wp-content/uploads/2023/04/Business-Code-of-Conduct-v2.pdf

The application of our corporate Code of Ethics and Business Conduct – human and labour rights

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.

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 is also committed to remaining 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 https://awavesemi.com/wp-content/uploads/2022/10/policy-against-trafficking-of-persons-and-slavery.pdf.

Anti-bribery and corruption

Compliance with global anti-bribery and corruption (ABC) legislation is vital in our approach to business dealings and forms the basis of our Anti-Bribery Policy. We will 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 will be 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 on our website at https://awavesemi.com/wp-content/uploads/2023/04/Anti-Bribery-Policy-v.1.1.pdf.

Anti-fraud and dishonesty

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

The Company fosters honesty and integrity in its entire staff. Directors and staff are expected to lead by example in adhering to policies, procedures and practices. Equally, members of the public, customers and external organisations (such as suppliers and contractors) are expected to act with integrity and without intent to commit fraud against the Company.

As part of this, the Company provides clear routes by which concerns may be raised by Directors, employees and associates. Details of this can be found in the Company's Anti-bribery and Whistleblowing Policy.

Overall responsibility for managing the risk of fraud has been delegated to the Chief Financial Officer. The day-to-day responsibility has been delegated to the Senior Director of Group Finance to act on behalf of the Chief Financial Officer.

For further details see our Anti-fraud and Dishonesty Policy published on our website at https://awavesemi.com/wp-content/uploads/2023/04/Anti-Fraud-and-Dishonesty-policy-v1.1.pdf.

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 instances of potential issues in good faith will be supported by the Company. The Company will 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.

For further details see our Whistleblowing Policy published on our website at https://awavesemi.com/wp-content/uploads/2023/04/Whistleblowing-Policy-1.1.pdf

Performance

In 2022, all new employees and those welcomed through acquisitions covered our Code of Ethics and Business Conduct as part of their induction.

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

Focus areas in 2023

- Annual review of relevant policies.
- Review of training requirements.

Community Engagement

Context

In 2022, we officially kicked off our community engagement programme across the Company.

As an organisation, it is important to us that we engage with the communities in which we operate.

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

The community engagement programme is co-ordinated by local representatives who meet remotely twice a year to share experiences and co-ordinate Group-wide initiatives.

Responsibility at Group level sits with our Senior Facilities Specialist who is part of the Human Resources function.

The goal of our community engagement programme is to support local and non-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 3).

Key initiatives

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

In 2022, the Company donated approximately US$30,000 globally to support local organisations and charities.

Additionally, our internship programmes in India and Canada work with local universities and organisations to ensure we make a positive contribution to the promotion of Science, Technology, Engineering and Mathematics (STEM) education and careers in engineering, supporting the next wave of innovators and expanding the talent pipeline. For more information see our People section on page 35.

In 2022, we also hosted our first 'bring your kids to work' day in Toronto and Ottawa. As part of the activities we shared some basic insights about our company and the industry, and there were multiple creative activities with a link to science (such as building specific structures). The day ended watching 'Dream Big', an engineering movie. This event was also part of an official educational day in Ontario.

Forward focus areas in 2023

- Track number of hours involved in community engagement activities.
- Assign country-specific budgets.
- Facilitate employee participation through online tools where employees can register to volunteer.

Case study
Supporting local food banks

In October, our Toronto and Ottawa offices housed food donation boxes in support of the Toronto Daily Food Bank and the Kanata Food Bank. All donations made by employees were matched by the Company, raising a total amount of over US$16,000.

Non-financial information statement

The Group complies with the non-financial reporting requirements in sections 414CA and 414CB of the Companies Act 2006.

Reporting requirements	Policies and standards that inform our approach	Reference in the 2022 annual report
Environmental matters	• Environmental Compliance Policy (Supply Chain)	Pages 48 and 49
Task Force on Climate-Related Financial Disclosures	• TCFD framework	Pages 42 to 47
Employees	• Code of Ethics and Business Conduct • Country-specific HR policies	Our People and culture, pages 35 to 41
Human rights	• 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 • ISO 9001:2015 (supply chain; website)	Our People, pages 35 to 41
Social matters	• ESG Policy	Societal benefits including community engagement on pages 54
Anti-corruption and anti-bribery	• 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 52 to 53
Additional information		
Business model	• N/A	Pages 12 to 15
Principal risks and uncertainties	• Confidential Information and IP Policy • IT Disaster Recovery Plan • IT Incident Management Policy • Risk Management Policy	Pages 66 to 69
Non-financial KPIs	• SASB	Page 27
Tax strategy	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.	

KPIs

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.

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.

Following the significant expansion of our employee headcount in 2022, we have introduced two new non-financial KPIs which relate to people: employee turnover and engineering R&D.

These two additional KPIs allow us to monitor our pool of talent and our capacity to foster innovation.

Non-financial

Employee turnover (#)

2022	10%
2021	7%
2020	1%[1]

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 2022 was 10%, compared to 7% in 2021 when turnover was below average. Data for India and Israel was included from 1 September and 13 October, 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&D (%)

2022	89%
2021	87%
2020	92%

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 2022, the percentage of employees working in research and development increased slightly to 89% (FY 2021: 87%). This includes all the employees who joined the business through the acquisitions of Precise-ITC, OpenFive and Banias Labs.

1. For the month of December 2020.

Technology leadership
Expansion
Innovation

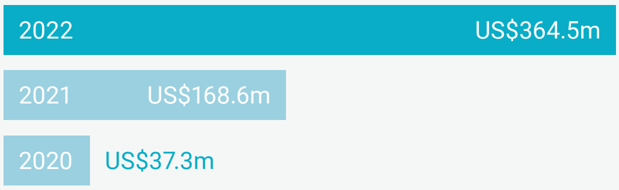
Bookings[1] (US$m)

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:
Excluding multi-year subscription deals, in 2022 bookings were up 135% (FY 2021: US$96.9m). Bookings from North American customers represented 46% of total bookings compared to 29% in FY 2021. In 2021 we signed two multi-year subscription deals adding up to US$147.8m. Bookings grew in all regions and we signed contracts with EMEA customers for the first time.

Backlog excluding royalties (US$m)



Link to strategy:

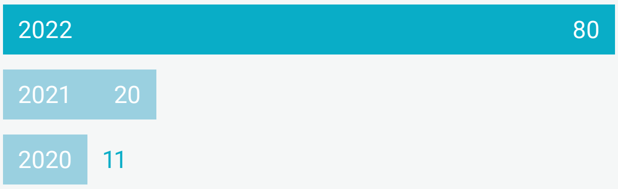
Description:
Backlog is a non-IFRS measure representing our bookings less revenues recognised to date. It represents the revenue that we expect to collect in future years based only on our existing and legally binding orders. As new bookings are secured, our backlog will increase and as existing bookings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

Performance:
Backlog excluding royalties increased by 116%. This was mainly driven by bookings secured in FY 2022 together with US$168m of backlog acquired with OpenFive and Precise-ITC 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.
2. US$147.8m corresponding to multi-year subscription deals included in the FY 2021 total bookings of US$244.7m.

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 from 20 in FY 2021 to 80 in FY 2022. During the year we also won repeat business from many of our customers.

Financial

Revenue (US$m)

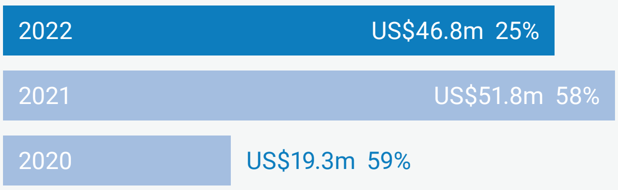
Link to strategy:

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 106% revenue growth in FY 2022, driven largely in China and North America. The revenue growth was the result of the execution against bookings secured in FY 2020 and FY 2021, and the revenue contribution from the acquisition of OpenFive.

Technology leadership
Expansion
Innovation

Adjusted EBITDA[1] (US$m) and margin

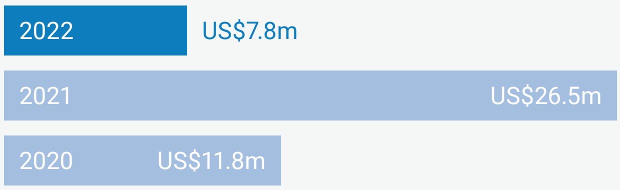


Link to strategy:

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 and advisory costs associated with acquisitions. Adjusted EBITDA is reconciled on note 4 Alternative performance measures (APMs).

Performance:
Adjusted EBITDA decreased by 10% in FY 2022, driven by organic investment and the operating expenses of the three acquired businesses. This was partially offset by organic revenue growth and the revenue contribution from the acquisition of OpenFive. Adjusted EBITDA margin was well below 2021 at 25%.

Pre-tax operating cash flow (US$m)



Link to strategy:

Description:
Pre-tax operating cash flow is an IFRS financial measure and demonstrates our ability to convert our 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 2022 operating cash flow before tax was US$7.8m, well below US$26.5m in FY 2021. In 2022, operating cash flow included US$28.2m of deferred compensation payments related to acquisitions. Excluding this item, operating cash flow before tax was US$36.0m, above 2021.

1. Adjusted EBITDA and adjusted profit after tax 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 note 4 (Alternative performance measures).

Financial review

> 2022 was a year of rapid expansion for the business.

2022 was a year of rapid expansion for the business – both organically and through acquisition – in terms of technology, competencies, customers, regions, engineering headcount and support functions. We completed three acquisitions during 2022, deploying US$439m of our IPO proceeds to realise our ambition for Alphawave Semi and raised US$210m in debt to maintain a strong balance sheet.

The foundation of the business remains our leading connectivity IP, which we can now monetise not only as IP licensed to customers developing their own chips, but by integrating that IP into custom silicon or own silicon products. The acquisitions of Precise-ITC and Banias Labs added complementary connectivity technology to our portfolio. Alongside the acquisition of Banias Labs, we announced a multi-year purchasing agreement with a leading North American hyperscaler to develop and sell a portfolio of optical products and DSPs.

With the acquisition of OpenFive, we acquired custom silicon development capabilities and complementary connectivity IP. We also acquired a significant backlog of business and customer contracts, some of which will impact our margins in the near term. However, and as evidenced by some of our recent custom silicon design wins, as we execute on new business more aligned with our strategy and Group margin targets, we expect a steady improvement in margins.

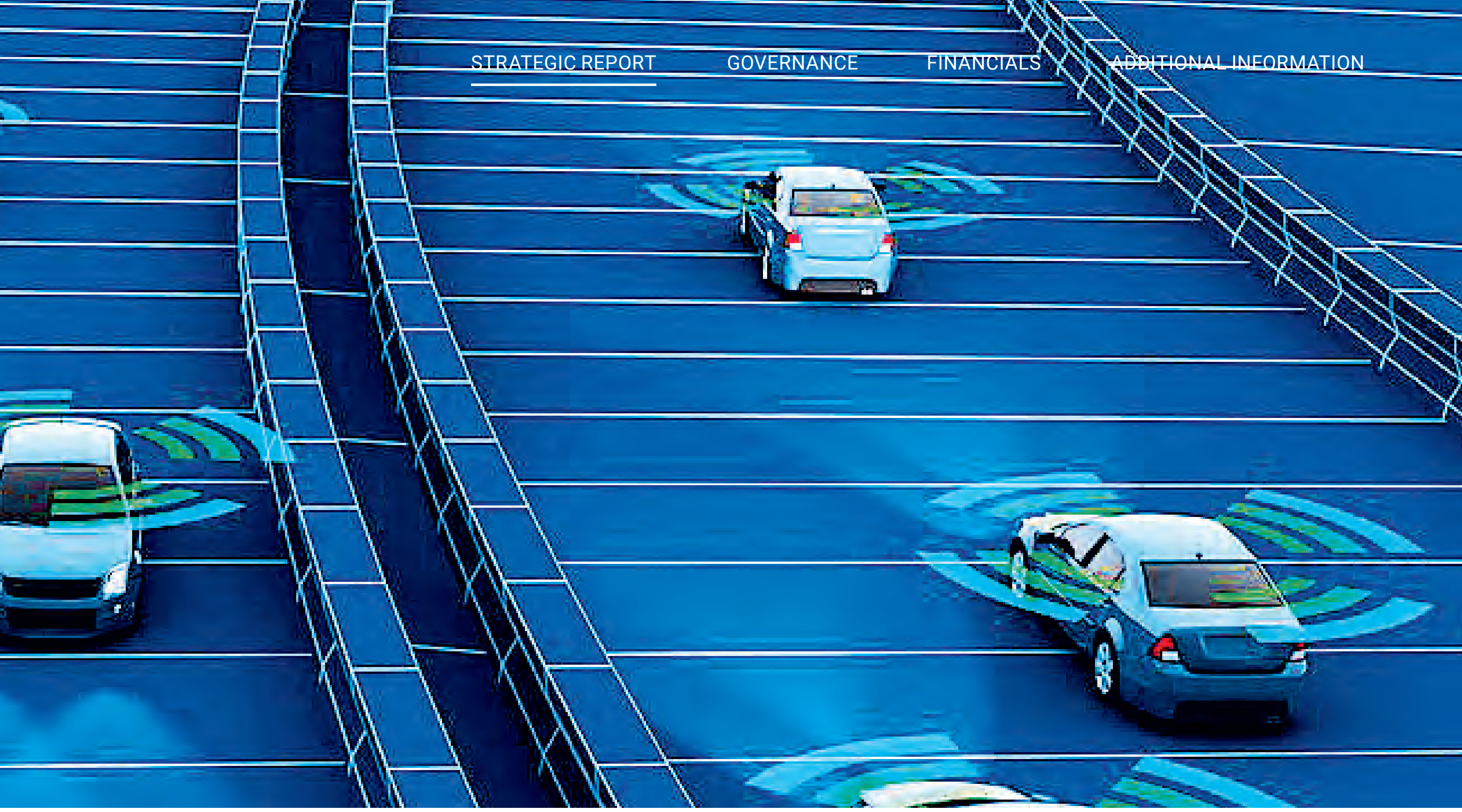
2023 will be a transition year as we continue the integration of our acquisitions and deliver on our growth strategy. The legacy custom silicon business acquired with OpenFive will be an important element of our revenue mix and our margin profile for the year.

Contracted order book and backlog

FY 2022 bookings totalled US$228.1m, of which US$131.3m represented IP licensing and NRE orders and US$96.8m represented royalty and silicon orders. This compares to US$244.7m of total bookings in 2021. However, US$147.8m of our 2021 bookings was generated from the multi-year licensing and resellers deals with WiseWave and VeriSilicon. Excluding those one-time deals, year-on-year bookings growth was 135%, comprising 80% growth in licensing and NRE orders and 304% 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 2022, representing 46% of the total. It was followed by 39% from China, 9% from EMEA and 6% from APAC 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 excluding potential royalties not yet recognised as revenue. At the end of 2022, our backlog was US$364.5m, more than double the backlog at the end of 2021 of US$168.6m. The increase was partly driven by the backlog acquired with OpenFive and Precise-ITC of US$168.3m, of which over US$100m was in our backlog as at the end of 2022. US$69.8m represents future revenue to be recognised under the subscription deals with WiseWave and through VeriSilicon.



Revenues

Revenues for 2022 reached US$185.4m, 106% growth compared to US$89.9m in 2021. The strong increase was driven by organic growth and acquisitions:

- acquisitions – the acquisitions of OpenFive and Precise-ITC contributed US$66.1m of revenues after consolidation entries at Group level. Our revenues excluding OpenFive and Precise-ITC were US$119.3m, with organic revenue growth of 33% compared to 2021 (US$89.9m);
- customers – in 2022, we recognised revenues from 80 end-customers, compared to 20 end-customers in 2021. This included new tier-one customers licensing our IP as well as customers acquired with Precise-ITC and OpenFive. 53% of our 2022 revenues were from existing end-customers, with 47% from end-customers new to Alphawave. End-customer revenue concentration decreased during the year. Our top five end-customers generated 47% of our 2022 revenues (2021: 62%) or 39% excluding revenues from the WiseWave subscription deal (2021: 51%); and
- regions – in addition to WiseWave and VeriSilicon, the contribution in 2022 from China (57%) was driven by significant outperformance of custom silicon products in the region. Absent this, our regional mix was comparable to 2021. Over the long term, as the 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 36% from US$37.6m in 2021 to US$51.4m in 2022, and APAC (excluding China) revenues grew 84% from US$9.2m in 2021 to US$17.0m in 2022. We also saw our first revenues from EMEA of US$12.3m in 2022, largely driven by our IP licensing business.

We recognised a small amount of royalty revenue in 2022 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.

Operating expenses and profitability

Gross margin in 2022 was 67%, 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 2021 gross margin was 94%. Gross margin in 2022 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.

EBITDA[1] in 2022 was US$49.3m (27% margin) compared to US$39.2m in 2021 (44% margin). On an adjusted basis, EBITDA in 2022 was US$46.8m (25% margin) compared to US$51.8m (58% margin) in 2021. The decrease in adjusted EBITDA margin was expected and reflects the early stage of our migration to a combined IP licensing and silicon model through our acquisitions and the scaling of our engineering capabilities.

Reflecting the continued scaling of the business and our acquisitions, operating expenses in 2022 were US$87.0m compared to US$48.7m in 2021.

R&D/engineering expenses in 2022 were US$69.4m (37% of revenue) compared to US$29.4m (33% of revenue) in 2021. In 2022, R&D/engineering included US$5.5m amortisation of acquired intangibles. For the first time, in 2022 we capitalised US$7.2m related to our own product development activities (2021: US$nil).

Sales and marketing (S&M) expenses in 2022 were US$4.6m (3% of revenue) compared to US$1.3m (1% of revenue) in 2021.

General and administrative (G&A) expenses in 2022 were US$17.2m (9% of revenue) compared to US$5.4m (6% of revenue) in 2021. G&A expenses in 2022 included an expected credit loss of US$2.2m based on our assessment of our potential credit loss on overdue invoices and accrued revenues. Excluding this, our G&A expenses for 2022 were US$15.0m (8% of revenue).

The year-on-year increase in R&D, S&M and G&A expenses was primarily due to the increase in headcount from 149 full-time employees at end 2021 to 695 at end 2022, together with associated software tool costs which scale with our R&D/engineering headcount. The increase of 546 full-time employees includes 376 employees who joined as part of the acquisitions of OpenFive, Banias and Precise-ITC. In addition, we invested in our support functions and scaled our finance, HR, legal and corporate marketing teams, reflecting the increased complexity and geographical spread of the Group.

In the medium term, we anticipate only modest growth in our headcount as we believe the Group is right-sized for the opportunities ahead.

Other expenses in 2022 totalled a credit of US$4.2m. M&A and professional costs in 2022 were US$17.0m related to the acquisitions and the debt funding. Stock-based payment costs of US$15.7m in 2022 reflect our increased headcount, equity grants awarded to employees joining from OpenFive and Banias, as well as significant one-time grants awarded to new members of the senior management team who joined us in 2022. Exchange gains in 2022 were US$36.8m, driven mainly by the strengthening of USD against GBP in H1 2022, as the Company held a significant USD balance at the plc level, which is a GBP denominated entity.

Other expenses in 2021 were US$12.6m, comprising US$10.0m of non-recurring IPO costs, US$0.5m one-time M&A/professional expenses, US$6.1m share-based payment costs and US$4.0m of exchange gains.

Operating profit was therefore US$37.6m in 2022, US$1.6m above 2021.

Finance income in 2022 was US$1.7m, compared to US$0.3m in 2021. The increase was largely driven by cash proceeds from IPO being invested in interest-bearing accounts.

Finance expense in 2022 was US$3.6m, US$3.3m higher than in 2021 (FY 2021: US$0.3m). The increase was driven by interest associated with the five-year term loan obtained in October 2022.

1. See note 4 (Alternative performance measures) on page 161 for reconciliations of EBITDA to adjusted EBITDA.

Share of the post-tax loss of equity-accounted joint ventures was US$18.5m in 2022, compared to US$12.9m in 2021.

At the end of 2022, the Group owned 42.5% of WiseWave, a newly formed 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$18.5m loss (US$12.9m loss in 2021). The five-year subscription licence agreement is being capitalised and amortised over the life of the agreement by WiseWave.

Tax expense in 2022 was US$18.3m, being 106% of profit before tax of US$17.2m, or 36% after adjusting for the loss from WiseWave and stock-based compensation expense, both of which are not deductible for tax purposes.

In 2022 we incurred a loss after tax of US$1.1m compared to US$9.4m profit for the year in 2021.

On an adjusted basis, profit after tax in 2022 was US$6.7m, compared to US$22.0m in 2021.

The exchange loss of US$75.0m in other comprehensive income is predominantly a result of the Company, a GBP-denominated entity, having net assets (including a large cash balance being the remainder of our GBP proceeds raised at IPO) translated into USD, our presentational currency. This is re-translated again for presentational purposes into USD at the year end. Over this period the USD strengthened against GBP from 1.4134 to 1.2058, a 15% increase.

Balance sheet, liquidity and cash flow

At the end of 2022, we held US$186.2m in cash and cash equivalents and had borrowings of US$210.2m, comprising a revolving credit facility of US$110.0m, a term loan of US$98.8m and other long-term borrowings of US$1.5m. During 2022, our net cash position decreased from US$501.0m to a net debt position of US$24.0m. During the year we deployed the proceeds of our IPO, investing US$438.7m on acquisitions, net of acquired cash.

During 2022 current trade and other receivables increased from US$13.1m to US$104.6m. This increase was primarily due to prepayments of US$50.9m from the OpenFive acquisition, which represent advance payments to foundries to reserve fab capacity and are predominantly covered by advance receipts from customers and other prepayments of US$19.7m (2021: US$2.5m).

Following the acquisition of OpenFive, at the end of 2022 we held physical inventory of silicon devices with a value of US$18.1m (2021: US$nil).

At the end of 2022 the carrying amount of intangible assets was US$161.4m (2021: US$1.2m). The increase during the year was primarily due to the technology and IP acquired with OpenFive and Banias Labs.

In 2022 we recognised aggregate goodwill of US$331.9m from the acquisitions of Precise-ITC, OpenFive and Banias Labs.

Accrued revenue, where revenue recognition conditions are met under IFRS 15 but we have not billed or collected any amount, increased from US$31.7m at the end of 2021 to US$58.5m at the end of 2022. 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$20.2m of the accrued revenue balance at the end of 2022.

Financial review continued

Balance sheet, liquidity and cash flow continued

Investments in equity-accounted associates, namely the value of the investment in WiseWave, was reduced from US$9.4m in 2021 to US$nil in 2022, as a result of equity accounting for losses at WiseWave during the period. The value of the cumulative losses incurred by WiseWave exceeds the cumulative value of our investment into the business.

During 2022, current trade and other payables increased from US$5.8m to US$83.1m. This increase was predominantly due to higher purchasing levels as the business has scaled.

Deferred revenue liability, where we have invoiced or received money for products or services where revenue recognition conditions are not met, increased from US$12.7m at the end of 2021 to US$91.7m at the end of 2022. This increase was due to the order intake for custom silicon products where in some instances customers are required to make advance payment ahead of silicon being shipped to them.

During 2022, flexible spending accounts, which represent deferred income, decreased from US$6.8m to US$5.2m. Flexible spending accounts 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 can be used as credit against future deliverables. We have flexible spending accounts with customers with whom we work on multiple projects and who prefer regular periodic billing and payments rather than milestone-based billing. Although we have been invoicing and collecting under these contracts, the revenue recognition conditions may not have been met, which enable us to recognise these billings as revenue.

In 2022 we generated cash from operating activities before tax of US$7.8m compared with US$26.5m in 2021. 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 includes 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 was US$36.0m.

Excluding these compensation payments, working capital in 2022 increased by US$15.0m, compared to an increase of US$15.6m in 2021. This was primarily due to an increase in trade and other receivables, offset by an increase in deferred revenue and flexible spending accounts, and trade and other payables.

Income tax paid in 2022 was US$19.9m, compared to US$7.6m in 2021.

In 2022, the Group generated a net cash outflow from operating activities after tax of US$12.1m, compared to a net cash inflow of US$18.9m in 2021. As stated above, this includes cash outflows related to one-time M&A-related expenses as well as deferred compensation payable as part of the acquisitions of Precise-ITC and Banias.

Capital expenditure during 2022 totalled US$15.5m (2021: US$2.2m), comprising US$4.2m of plant, property and equipment and US$11.3m of intangibles. US$11.3m of intangibles includes capitalisation of development expenses of US$7.2m (2021: US$nil). US$4.2m of plant, property and equipment relates to purchases of lab and test equipment as we ramp our own product development capabilities, as well as leasehold improvements.

In 2022, we also made further equity investments into WiseWave totalling US$9.1m, with Wise Road Capital contributing US$12.3m. As disclosed in our IPO Prospectus, Alphawave IP has committed to invest up to US$170m in total into WiseWave, although our expectation is that any future investment will be limited and we will seek to realise our equity stake in the medium term.

As detailed in our Capital Markets Day in January 2023, the Company's capital allocation policy is 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.

Finally, as further detailed on page 143, the Directors have adopted the going concern basis of accounting.

Tony Pialis

Chief Executive Officer

19 May 2023

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.

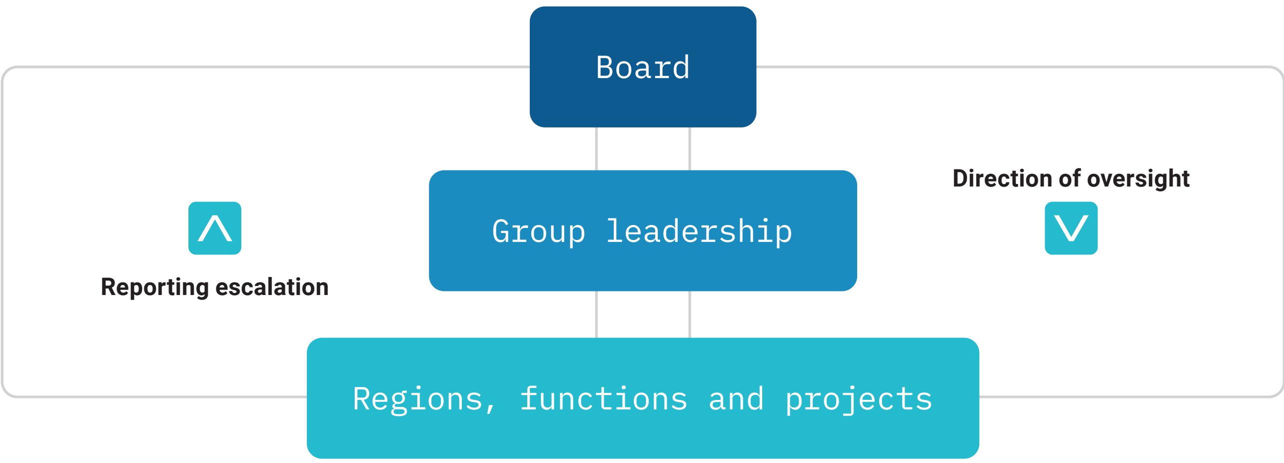
Emerging risks

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 pages 90 to 91. We have removed 'Impact of COVID-19' as a principal risk.

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	Mitigation
Managing our growth	Change in year: Increase
We have a limited operating history and are growing rapidly. If we do not manage our growth successfully, fail to execute on our strategy, 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.	The executive management team meets formally on a weekly basis to review current and future resourcing needs and priorities. During 2022, we continued to expand our senior leadership team and strengthened our administrative and operational functions. We also utilise external advisers to help manage our growth.
Competition and failure to maintain our technology leadership	Change in year: No change
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.	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.
Customer dependence	Change in year: No change
Our products and technology target the 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.	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 2022 revenue concentration from our top three end-customers was 36%, which was significantly below the prior year (FY 2021: 50%).
Customer demand	Change in year: No change
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.	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 is 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	Mitigation
Risks associated with WiseWave	**Change in year: No change**
WiseWave is today an important element of our strategy to monetise our IP in China and we are a significant minority shareholder. We 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 the bookings from WiseWave do not translate into revenues and we are unable to realise the full value of our investment on exiting the joint venture.	The legal agreements governing WiseWave give us a degree of oversight and governance over WiseWave. The 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.
Dependence on licensing revenues	**Change in year: Decrease**
Our financial performance is highly 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.	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. We are also seeking to conclude subscription licences to provide greater visibility and stability of future revenue streams. The acquisition of OpenFive will materially reduce our dependency on IP licensing revenues as we seek to monetise our IP through custom silicon. Leveraging our acquisition of Banias Labs, as we drive revenues from our own products, our relative exposure to IP licensing will also decrease.
Reliance on key personnel and ability to attract talent	**Change in year: No change**
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.	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 2022, our headcount increased from 149 to 695 as a result of organic growth and acquisitions. See Our People section on page 35 for further information.
External environment and events	**Change in year: Increase**
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 Ukraine potentially has wide-ranging impacts, including global economic instability, increased geopolitical tensions and disruption to supply chains.	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	Mitigation
IP protection and infringement	**Change in year: No change**
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.	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.
Reliance on third-party manufacturing foundries	**Change in year: Increase**
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.	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.
Reliance on complex IT systems	**Change in year: No change**
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.	In 2022 we continued to make further improvements to our IT systems, in line with best practice. 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. In 2022 we welcomed a new IT Director who is responsible for all IT matters across the Group, including cybersecurity.

The strategic report on pages 1 to 69 was approved by the Board of Directors and signed on its behalf by:

Tony Pialis

President & Chief Executive Officer

19 May 2023

Board of Directors

We have a very energetic, diverse and flexible technology-focused culture and we are proud of our commitment to ethnic, national and gender diversity in our people and in our Board.

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.

C

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

- C Committee Chair
- Audit Committee
- Remuneration Committee
- Nomination Committee

Daniel Aharoni

Executive Director

Daniel Aharoni was appointed to the Board as Chief Financial Officer in January 2021. Daniel has extensive experience in the banking and finance industry, with many years of experience in a senior executive role, advising European semiconductor and silicon IP companies. He served as the Co-Head of Technology Investment Banking, EME at Barclays plc, with overall responsibility for the technology sector investment banking coverage across Europe and the Middle East. Daniel has also held roles at Jefferies, UBS, Dresdner Kleinwort and Rothschild.

Daniel holds a Bachelor of Arts with honours in Jurisprudence from Oxford University and a Diploma in Legal Practice from the Oxford Institute of Legal Practice. Daniel qualified as a solicitor in 2000.

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 and 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.

Jan is Non-Executive Chairman of the board at Aspia AB and Clavister Holding AB. He also serves as a Non-Executive Director on the boards of, amongst others, ITAB Shop Concept AB, Nordic Semiconductor ASA, and Roima Intelligence OY. Jan also previously served as a Non-Executive Director on the boards of Kvdcar 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

ITAB Shop Concept AB, Non-Executive Director (NED), Chairman of Audit Committee; Nordic Semiconductor ASA, NED and Chairman of Audit Committee; Aspia AB, NED, Chairman of the Board, member of Compensation Committee; Clavister Holding AB, NED, Chairman of the Board and Audit Committee; OX2 AB, NED, Chairman of the Audit Committee; Roima Intelligence OY, NED; Telavox AB, NED; ENEA AB, NED, Chairman of the Audit Committee; Plum, Member of Advisory Council; FCD Sverige AB, Director.

C

Michelle Senecal de Fonseca

Independent Non-Executive Director

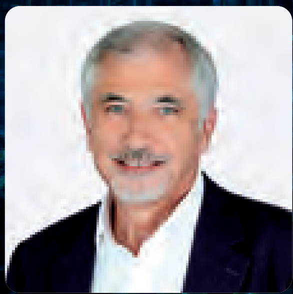
Michelle Senecal de Fonseca joined the Board in April 2021. Her expertise is in international telecommunications and technology sectors. Michelle was the Global Vice President for Cloud Innovation Partnerships at Citrix Systems after having led its European sales. Prior to Citrix, she was the Global 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.

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 the CEO of Spring Fibre and was Managing Director of UK Broadband from 2017 to 2019. She has previously held senior roles at BT Openreach, Cable & Wireless, Vodafone, various VNOs, and other international operators from start-ups to incumbents.

She is also Chair of the Telecoms Supply Chain Diversity (TSCD) which advises Government on developing the telecoms ecosystem, a 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

Spring Fibre Limited, CEO and Director; Angel Academe TWSU Nominee Ltd; Telecoms Supply Chain Diversity (TSCD), Advisory Council Chair; Independent Networks Co-Operative Association (INCA), Advisory Board member; Lumine Group Inc, Board Observer.

Paul Boudre

Independent Non-Executive Director

Paul Boudre was appointed to the Board in April 2021. Paul retired in July 2022 as the Chief Executive Officer of Soitec, a France-based international company specialising in generating and manufacturing high-performance semiconductor materials. As a 30-year semiconductor industry veteran, Paul 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, and he was subsequently appointed Vice President for both the US and Europe.

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

External appointments

Unity Semiconductor SAS (formerly Fogale Nanotech S.A.S.), Chairman of the Board; 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; Zerro 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.

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.

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.

C

Kim Clear

Company Secretary

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

Kim has extensive experience as a senior chartered secretary, with over 20 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.

Committee memberships

- C Committee Chair
- Audit Committee
- Remuneration Committee
- Nomination Committee

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

Daniel Aharoni
Executive Director

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.

Jose Cano
Global Head of Investor Relations

Jose joined the Company in June 2022 as Global Head of Investor Relations and leads all investor relations activities for the Company, as well as sustainability and corporate communications.

Jose has spent most of his career in the technology sector globally, but with a focus on businesses based in the UK and Europe. He was Head of Investor Relations at Dialog Semiconductor plc from 2012 until August 2021. Prior to Dialog he was at Logica plc, where held various roles in Investor Relations and Corporate Finance.

Jose is an FSA Credential Holder, has a Bachelor of Science degree in Business Administration and Economics (University Complutense of Madrid) and an MBA (OU UK).

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.

Maia Jones
VP, Human Resources

Maia Jones is an accomplished executive with extensive experience in diverse sectors, including government, public and technology. As VP of Human Resources at Alphawave, she leads the Company's Human Resources function, attracting and retaining top talent and fostering a positive work culture. With previous experience in HR 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 HR team.

Mohit Gupta

SVP and General Manager, Custom Silicon

Mohit Gupta joined in September 2022 via the acquisition of 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 Indian Institute of Management, Calcutta.

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.

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 Program 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.

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.

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.

Board leadership and Company purpose

Corporate governance statement

> "The Board's commitment to strong governance supports the long-term success of the Group.

John Lofton Holt
Executive Chair

Introduction

The Board is accountable to the Company's shareholders for ensuring 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 UK Corporate Governance Code 2018 (the 'Code'). The Board will also voluntarily report to its shareholders on its compliance with the Code in accordance with the requirements for premium 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 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 Code also recommends that, on appointment, the chair of a UK premium listed company should meet the independence criteria set out in the UK Corporate Governance Code. However, the Company Chair was not independent on Admission. John Lofton Holt, together with the other founders, has guided the Group's growth through its early stages. The Board considers that his continued leadership will ensure that the Group is best placed to continue its current growth trajectory. With a majority of independent Directors on the Board, John's 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 in light of its challenges and opportunities following Admission, 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 on pages 113 and 114, and meets applicable other 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 143;
- the viability statement is set out on page 91;
- Directors' explanation as to their assessment of the Group's prospects, the period this assessment covers and why the period is appropriate set out on pages 91 and 143;
- information with regard to share capital is presented in the Directors' report on page 114;
- information on Board and Committee composition and Division of responsibilities on pages 80 to 81;
- the Board's approach to workforce and stakeholder engagement is in the section 172(1) statement on pages 31 to 33;
- 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 84;
- diversity is discussed in the section on the Nomination Committee's activities on pages 84 and 85;
- the section describing the work of the Audit Committee is set out on page 88; and
- the Directors' statement on fair, balanced and understandable is set out on page 116.

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 70 to 73

Board activities
page 79

Division of responsibilities
pages 79 and 80

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 on pages 86 to 91.

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 on pages 92 to 112.

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 on pages 82 to 85.

Board activities in FY 2022

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 on pages 31 to 33.

Culture

The Board is dedicated to maintaining the Company's collaborative and innovative culture and along with management believe that the engineering talent of its employees is critical to the Group's success. Alphawave Semi's highly technical and experienced management team has created an engineering-focused culture that has enabled the Group to hire and retain some of the best engineering talent in wired connectivity IP, with research and development/engineering comprising 89% of the total workforce. In recognition of this, TSMC, the largest semiconductor manufacturing foundry in the world, awarded Alphawave Semi as Open Innovation Platform Partner of the Year for High-Speed SerDes in 2022 for the third year in a row, validating the value that the Group brings to customers and partners. Our culture and values underpin the way we work and how the Board engages with our stakeholders. The Board plays an important role in promoting and monitoring our culture as we continue to grow. The Board hears directly from employees through the Alphawave University open forums.

2022 Annual General Meeting

The Company's Annual General Meeting (AGM) was held on 6 June 2022. All resolutions put to the meeting were passed but the Board did note that Resolution 8 to re-elect Jan Frykhammar as a Director of the Company and Resolution 21 to approve the Rule 9 waiver received less than 90% in favour. The Executive Chair and the Global Head of Investor Relations continue to engage with investors to understand their views and concerns.

Resolution 21 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.

Resolution 8

The Board continues to believe that Jan Frykhammar has sufficient time to devote to the Company as can be seen by Jan's attendance in the table on page 88. Engagement with investors continues throughout the year and since the AGM regular meetings have been held. Investors have the opportunity to raise any issues or questions they have informally with any member of the Board.

Roles and responsibilities of the Board

The Group's governance 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 is also responsible for:

- 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; and
- the approval of any changes relating to the Group's capital, corporate and/or listed structure.

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 December 2022 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.

The Board is looking forward to spending more time in the business in 2023 and one of the scheduled Board meetings is due to take place in Toronto, Canada at the Company's R&D headquarters.

Board leadership and Company purpose continued

Corporate governance statement

Board composition

The Board is comprised of ten Directors: the Executive Chair, three Executive Directors, and six Non-Executive Directors, one of whom is the Senior Independent Director and two of whom take on a Committee Chair role. 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 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 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.

Meeting attendance

The names of the Directors who served during FY 2022 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 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, a number of ad-hoc meetings are held when the need arises. The Executive Chair holds regular meetings with each of the Non-Executive Directors.

The Company Secretary acts as the Secretary to the Board and all the Committees and attends all meetings. The Company Secretary ensures that the Board and Committee members receive all information and papers in a timely manner, and ensures that Board procedures are complied with.

Details of our business model, strategy and key risks for the business can be found in our strategic report on pages 1 to 69.

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	6/6	n/a	n/a	2/2
Tony Pialis	6/6	n/a	n/a	n/a
Daniel Aharoni	6/6	n/a	n/a	n/a
Jan Frykhammar	6/6	5/5	4/4	2/2
Victoria Hull	6/6	5/5	4/4	n/a
Michelle Senecal de Fonseca	6/6	5/5	n/a	n/a
Susan Buttsworth[4]	5/6	n/a	n/a	2/2
Rosalind Singleton	6/6	n/a	n/a	n/a
Paul Boudre[4]	3/6	n/a	1/4	n/a
Sehat Sutardja[4]	4/6	n/a	n/a	n/a

1. The composition of the Board and its Committees is shown as at 31 December 2022 and remains unchanged as at the date of this document.
2. The Disclosure Committee has been omitted from the above table as it meets on an ad-hoc basis, rather than a scheduled basis. It met twice during the period under review.
3. The Board held several additional ad-hoc and sub-committee meetings during the period to deal with urgent matters. All Board members who were able to attend did so.
4. Paul Boudre was unable to attend the January, March and September Board and the February, April and December Remuneration Committee meetings and Sehat Sutardja was unable to attend the September and December Board meetings due to prior commitments. Susan Buttsworth was unable to attend the September Board meeting due to illness.

Composition, succession and evaluation
Nomination Committee report

> “The Committee continues to support the Board and the long-term success of the business with the development of succession plans.

John Lofton Holt
Chair of the Nomination Committee

I am pleased to present our second Nomination Committee report, covering the year ended 31 December 2022. 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 2022 the Committee could turn its attention to ensuring 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.

Committee composition

The Nomination Committee is comprised of John Lofton Holt as Chair and its other members are Jan Frykhammar and Susan Buttsworth, both Independent Non-Executive Directors. The biographies of each member of the Committee are set out on pages 70 to 73.

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.

Key activities

The Nomination Committee assists the Board in discharging its responsibilities and 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 2022

As part of the Nomination Committee's remit, it carried out the following key tasks:

- first full annual evaluation of effectiveness of the Board and its Committees;
- a review of the Board composition, skills matrix and succession planning, for the Executive Chair and Chief Executive Officer; 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.

One of the Nomination Committee's key priorities for 2022 was to establish a succession plan for the Board and senior management team. The Committee now has in place succession plans for the Chief Executive Officer and the Executive Chair. In 2023 the Committee will continue to establish succession plans for the remaining members of the Board and senior management team.

Internal Board evaluation

The first annual evaluation of the operation and effectiveness of the Board, its Committees and individual Directors took place in July 2022. 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, fellow Directors' appraisal, and focus areas of 2022, with the responses collated and analysed by Link Company Matters Limited.

The results of the evaluation process indicated that the Board continues to work well with no significant issues arising from the evaluation process and it was agreed that the Board and its Committees were functioning effectively. Key findings highlighted the focus areas for 2023 as growth through acquisition and the integration of those acquisitions, ESG initiatives and improving energy consumption and entering the chiplet market. The actions agreed by the Directors will be monitored by the Board during 2023.

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

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 2023 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 Company's external lawyers provided all Directors with training in respect of their legal, regulatory and governance duties, responsibilities and obligations prior to the IPO. Equivalent arrangements will be put in place for future Board appointments, as will an annual refresh. Regular updates are given at each Board meeting on market and industry activities and any relevant changes to the business. Business heads regularly attend Board meetings to provide specific business-related presentations and to allow deep dive opportunities for the Directors. The Board holds an annual strategy off-site meeting. The first scheduled strategy meeting took place on 30 March 2022 and included discussion and debate on business strategy, operating model, and various NED-led roundtable discussions.

In 2022, dedicated Directors' training sessions included sessions on:

- duties and responsibilities of directors of UK listed companies, including AGM duties; and
- executive remuneration landscape and trends.

The training needs of the Directors are periodically discussed at Board meetings and briefings are arranged on key issues. 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 2022. 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.

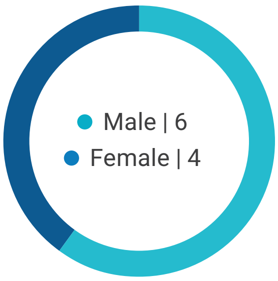
Diversity is one of the strongest assets of our organisation. The Group is committed to promoting the recognition and appreciation of our diverse and rich culture and believes that it is critical to its success to promote freedom of thought and opinion in a respectful environment. The decisions we make 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.

At the date of this report, I am proud to report that the Board has 40% female representation on its Board of Directors. Four of our six Independent Non-Executive Directors are women, who are leading figures in global technology companies. It is reflective of our diverse workforce, which is 20% female.

Further, we acknowledge the recommendations of the Parker Review in relation to ethnic and cultural representation on listed company boards, but have not at this stage set a target, noting that the review is applicable only to premium listed FTSE 350 companies.

Board gender diversity



Board experience

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

Board geographic diversity

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

When considering Board appointments and internal promotions at 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 on pages 110 to 111 of this document in the Directors' remuneration report.

John Lofton Holt
Chair of the Nomination Committee

19 May 2023

Audit, risk and internal control
Audit Committee report

> “In 2022 the Group deployed US$439m in the expansion of the business, setting some of the key items of discussion for the Committee.

Jan Frykhammar
Chair of the Audit Committee

Dear shareholders,
I am delighted to present my second 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 2022, and up to the Last Practicable Date, 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.

Our external auditor, KPMG, attended all five of the scheduled Audit Committee meetings held during the financial period. The Executive Chair, the Chief Executive Officer, Chief Financial Officer and other members of management attend by invitation.

As part of the annual 2022 Board and Committee performance review, I am pleased to say that the responses to the Audit Committee section of the questionnaire were positive. The Directors were of the opinion that the Committee members, as a whole, have the experience relevant to the sector and that at least one member has recent and relevant financial experience. The review stated that the Committee was well chaired and that all members allocated sufficient time to the Committee.

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.

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 starting on page 118 and the financial statements of the Group and Company in general.

In the previous financial year, one area of focus for the Audit Committee was to review the need for an internal audit function. Noting that companies adopt a range of models for internal audit based on the needs of the business, we asked BDO to produce a discussion paper on internal audit options. In parallel, management continued working on improving internal controls, including a greater segregation of duties. Following a review of all the information, the Audit Committee, along with management, have recommended to the Board that there is no immediate business need to create an internal audit function. I have agreed that the need for an internal audit function, whether in-house or outsourced, will be reviewed on at least an annual basis.

This Audit Committee report will show how the Company's financial reporting process is monitored and reviewed. To discharge its duties the Audit Committee has a rolling annual planner which is based on the terms of reference.

At the 2023 AGM, shareholders will vote on the Board's recommendation to appoint KPMG LLP as our external auditor.

I would like to thank the members of the Audit Committee, the management team and the external auditor for their hard work in a year of accelerated business expansion.

Jan Frykhammar
Chair of the Audit Committee

19 May 2023

Audit Committee report

Role and key areas of activity

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 and meeting attendance

The Audit Committee is comprised entirely of Independent Non-Executive Directors. The Audit Committee is chaired by Jan Frykhammar and its other members are Victoria Hull and Michelle Senecal de Fonseca. 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 complies with the requirements of the Code in these respects.

Five scheduled meetings were held in 2022, with two ad-hoc meetings. The Executive Chair, Chief Executive Officer and Chief Financial Officer, other members of the finance team and external auditor attend the meetings by invitation. Representatives of the external auditor attended all of the meetings of the Committee. Each scheduled meeting is held in advance of a Board meeting, allowing the Audit Committee Chair to report to the Board on the key matters discussed. The Committee meets privately without management present after scheduled meetings, as necessary. Private meetings are also held at least once a year with the external auditor to allow any issues of concern to be raised.

The Chair of the Committee meets separately with the Chief Financial Officer and the external auditor during the financial year to ensure that the work of the Audit Committee is focused on key and emerging issues.

Committee member	Meetings attended
Jan Frykhammar (Chair of the Committee)	5/5
Victoria Hull	5/5
Michelle Senecal de Fonseca	5/5

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 announcement relating to the Group's financial performance.

In considering the Group's half-year report for the six months ended 30 June 2022, the Audit Committee conducted a page turn of the report at its meeting in September 2022 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 2022 annual financial statements in October 2022, including materiality, the audit cycle and the proposed timetable.

In the preparation of the Company's and Group's 2022 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 2022 annual report.

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

Description of significant area	Work undertaken by the Audit Committee and outcomes
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 and OpenFive.	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. See notes 2, 3 and 5 to the financial statements.
Acquisition accounting The Group has made significant investment in multiple acquisitions, and therefore accounting for business combinations is a key area of focus due to the level of judgement involved.	For the acquisitions of Precise-ITC, OpenFive and Banias made during the year, the Committee considered the outputs from the external valuers with a focus on the key judgements made in the valuation methodologies. The Committee noted that the acquisitions had been extensively reviewed, including key forecast assumptions, as part of the Board's approval process for each acquisition. Key judgements included the determination of longer-term cash flows, discount rates and longer-term growth rates. The Committee also considered the basis for which the fair value of acquisition consideration had been determined and the basis for management's allocation of goodwill at the Group level. The Committee subsequently approved the valuation of the acquisition intangibles along with the allocation of goodwill.

Fair, balanced and understandable

At the request of the Board, the Audit Committee has reviewed the content of the 2022 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.

Following the Committee's review, the Directors confirm that, in their opinion, the 2022 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.

Audit, risk and internal control continued

Audit Committee report

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 Group has internal controls and risk management systems in place in relation to its financial reporting processes and preparation of consolidated accounts. These systems include policies and procedures to ensure that adequate accounting records are maintained and that transactions are recorded accurately and fairly to permit the preparation of financial statements in accordance with IFRS.

The internal control systems include the elements described below.

Element	Approach and basis for assurance
Risk management	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 will be undertaken by the Audit Committee on an annual basis and reviewed by the Board. The management of identified risks is delegated to the senior management team, and regular updates are given to executive management at monthly meetings.
Financial reporting	Group consolidation is performed on a monthly basis with a month-end pack produced that includes an income statement, balance sheet, cash flow and detailed analysis. The month-end pack also includes KPIs, which are reviewed each month by the senior management team and the Board. Results are compared against the budget or re-forecast and narrative provided by management to explain significant variances.
Budgeting and re-forecasting	An annual budget is produced and monthly results are reported against this. The budget is prepared using a bottom-up approach, informed by a high-level assessment of market and economic conditions. Reviews are performed by the senior management team and the Board. The budget is approved by the Board.
Delegation of authority and approval limits	A documented structure of delegated authorities and approval for transactions is maintained beyond the Board's terms of reference. This is reviewed regularly by management to ensure it remains appropriate for the business.
Segregation of duties	Procedures are defined to segregate duties over significant transactions, including procurement, payments to suppliers and payroll. Key reconciliations are prepared and reviewed on a monthly basis to ensure accurate reporting.

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 other external assurances commissioned, 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.

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.

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 66 to 69. This three-year period aligns with the Group's internal forecasting framework, reflects the Group's high growth and evolving financial profile and accommodates the impact of the Group's announced acquisitions.

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 proposed 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 2022, the Audit Committee approved the audit plan and fee for the period ending 31 December 2022 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. There were none.

The year ended 31 December 2022 is the first year for which Andrew Campbell-Orde will sign the auditor's report as senior statutory auditor. 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.

Other responsibilities

Focus areas for 2023

The Audit Committee will undertake a review of the selection process of an ERP solution during the course of 2023 and make recommendations to the Board as appropriate. We will also assist management with the review of post-admission compliance, including the Delegation of Authority matrix.

Approved and signed on behalf of the Audit Committee.

Jan Frykhammar
Chair of the Audit Committee

19 May 2023

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

Victoria Hull
Chair of the Remuneration Committee

Chair's letter

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

This report is divided into three sections:

- Remuneration Policy, which sets out the approach the Remuneration Committee takes on Directors' pay as approved by shareholders at the AGM in 2022;
- details on what has been paid to Directors in 2022; and
- an outline of how we propose to pay Directors in 2023.

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 approved by shareholders at the AGM in June 2022.

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 20 to 80, including new customers coming from the acquisition of OpenFive. We deployed US$439m of cash in the acquisitions of Precise-ITC, OpenFive and Banias Labs, allowing the Company to enhance its product portfolio and address more of our customers' connectivity requirements.
- We increased our engineering and operational capabilities, scaling headcount from 149 to 695 by 31 December 2022. This was the result of continued hiring as well as the employees from the acquired businesses (Precise-ITC, OpenFive and Banias Labs).
- We expanded our product offering to address lower process nodes and announced the successful tapeout of ZeusCORE100® 1-112Gbps NRZ/PAM4 Serialiser-Deserialiser (SerDes), our first test chip on TSMC's most advanced N3E process.

Financial performance

- Excluding multi-year contracts with VeriSilicon and WiseWave, bookings for the year were up by 135% to US$228.1m.
- We grew our revenues for the year by 106% to US$185.4m.
- We achieved adjusted EBITDA margin of 25%, generating adjusted EBITDA of US$46.8m.

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 2022 average annual salary increase for the wider workforce was 4% (the Executive Directors have not received an increase and no increase is being proposed for 2023), and all employees are eligible for an annual bonus, with the average incentive outcome being 20% of salary. Employees are also eligible to a 10% employer pension contribution – which aligns to the Chief Financial Officer's entitlement.
- 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.

Government support

- No government assistance has been requested nor taken in 2022 in any of our regions.

2022 remuneration

Taking the context set out above into account, the Committee made the following decisions in respect of remuneration in 2022:

Bonus

Performance exceeded target for revenue and missed threshold on EBITDA target metrics, weighted 60% and 40%, respectively. The Committee determined that the bonus payout should reflect this outcome. The Chief Financial Officer, the sole Executive Director that participated in the bonus scheme for the 2022 financial year, will receive a maximum opportunity payout of 150% of his salary, based on the 60% revenue weighting, this equates to 68% of salary. The Committee believed that this is a fair and appropriate outcome, considering the performance achieved and the wider stakeholder experience. One third of this award on a gross basis will be deferred into shares, which will be held for a further two years.

Full details on the targets set and performance against them can be found on page 107 in respect of the 2022 bonus scheme.

2022 remuneration continued

Long-term incentives

As Alphawave Semi is only in its second year as a listed company, there is no long-term incentive plan vesting to report. The first long-term incentive plan award was made to the Chief Financial Officer in 2022.

Full details on Directors' share interests in the Company can be found on page 109.

2023 Remuneration Policy and implementation

CFO transition – As announced on 4 May 2023, Daniel Aharoni will step down as CFO and Executive Director of the Company following the publication of the audited results of the Company for FY2022. The Board has already commenced the search for his successor. In the interim, Christian Bowsher, Senior Director of Finance at Alphawave Semi, will serve as interim CFO to support John Lofton Holt and Tony Pialis to enable an orderly transition. 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 12 month notice period, subject to mitigation and pay in lieu of accrued but untaken holiday. He will not be 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 will lapse 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 will be subject to post-employment shareholding requirements. Further details will be disclosed in the Directors' Remuneration Report for the financial year ended 31 December 2023. Christian Bowsher will not be subject to the Remuneration Policy as he will not be an Executive Director of the Company.

Base salary – no proposal to increase salary levels for any of the Executive Directors.

Annual bonus – metrics will continue to be revenue (60% weighting) and EBITDA (40%) as key strategic measures for the Group's success given its current growth phase. Threshold, target and maximum target levels have been approved by the Committee, and performance will be assessed in the same way as those for the 2022 bonus, taking due account of the wider stakeholder experiences when determining the appropriate payout level, in addition to the formulaic out-turn.

A third of the bonus earned will be deferred into shares and required to be held for a further two-year period.

As mentioned above, Daniel Aharoni will not participate in the 2023 annual bonus plan. The Board has commenced the search for his successor. Depending on the start date for his successor, the new CFO may participate in the 2023 annual bonus. Further updates will be provided in due course. While the Executive Chair and Chief Executive Officer are eligible to participate in the annual bonus plan, they have both waived participation again for the 2023 annual bonus, given their significant shareholdings, which amount to over 100 times their respective salaries, already provide significant alignment with Group performance. Sehat Sutardja is not entitled to participate in any bonus or variable compensation arrangement.

Long-term incentive – Awards will be subject to relative Total Shareholder Return (TSR) (70% weighting) and EPS growth (30% weighting) performance metrics. TSR performance will be measured relative to two different indices with an equal weighting on each. These are the FTSE 250 Index and the FTSE All-World Technology Index, to reflect both our UK listing and our competitive business position in the global technology market. More details on these metrics and targets for each can be found on page 43.

As mentioned above, Daniel Aharoni will not participate in the 2023 LTIP. Depending on the start date for his successor, the new CFO may participate in the 2023 LTIP. Further updates will be provided in due course. While the Executive Chair and President & Chief Executive Officer are eligible to participate, again they have both waived participation for the 2023 LTIP award as their significant holdings already inherently provide alignment with other shareholders. Sehat Sutardja is not entitled to participate in any bonus or variable compensation arrangement.

Full details on the Policy (including pension and benefits, shareholding guidelines and malus and clawback provisions) and further information on the proposed implementation of the Policy can be found on pages 99 to 100.

I hope you find that this report clearly explains the remuneration approach we have taken and how we will implement the Policy in 2023. I look forward to your support at the 2023 AGM in respect of the resolution relating to this report.

Victoria Hull
Chair of the Remuneration Committee

19 May 2023

Remuneration at a glance

Component	2022 (year ended 31 December 2022)	2023 (year ending 31 December 2023)
Fixed pay		
Base salary level	• John Lofton Holt, Executive Chair: £450,000. • Tony Pialis, President & Chief Executive Officer: £450,000. • Daniel Aharoni, Chief Financial Officer: £365,000. • Sehat Sutardja, Executive Director: £85,000 (part-time working arrangement).	• No increase from 2022.
Benefits	• Private medical cover for the President & Chief Executive Officer, Executive Chair and Chief Financial Officer.	• No change from 2022.
Pension	• Only the Chief Financial Officer participates. • Chief Financial Officer entitlement: 10% of salary, aligned with wider workforce.	• No change from 2022.
Variable pay		
Annual bonus	• Executive Chair and President & Chief Executive Officer eligible but only the Chief Financial Officer participated. • Chief Financial Officer opportunity (% of salary): Target 75% / Maximum 150%. • Measures: Revenue (60%) and EBITDA (40%). • Deferral: 1/3 deferred into shares over two years.	• No change from 2022.
Long-term incentives	• Executive Chair and President & Chief Executive Officer eligible but only the Chief Financial Officer will participate. • Chief Financial Officer opportunity (% of salary): Maximum 205%. • Measures: relative TSR (70%) and EPS (30%). • Performance/holding period: three-year performance plus two-year holding period. • Chief Financial Officer received conditional awards of 424,275 ordinary shares.	• No change from 2022.

Our governance

Our link between remuneration and strategy

Alphawave Semi's strategic priorities as detailed on page 93 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 below (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 98 to 100.

UK Corporate Governance Code 2018 (the 'Code') – Provision 40 alignment

The table below explains how the Remuneration Committee has addressed the factors set out in Provision 40 of the Code.

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.

Shareholder Voting

The following resolutions were put to shareholders for approval at the 2022 AGM and the resolutions were passed.

Resolution	For	Against	Total	Withheld
To approve the Directors Remuneration Report	635,783,146 (99.98%)	115,061 (0.02%)	635,898,207	100,058
To approve the Directors' Remuneration Policy	635, 690,571 (99.97%)	207,164 (0.03%)	635,897,735	100,530

Remuneration Policy table for Executive Directors

Purpose and link to strategy	Operation	Maximum opportunity	Performance measures
Fixed remuneration			
Base salary			
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.	Base salaries will typically be reviewed annually, with any increases normally effective from 1 January. Base salary levels take account of: • 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. No recovery or withholding applies.	Whilst there is no prescribed maximum, salary increases will generally be in line with those of the wider workforce. 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. 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. Such increases will be explained in the relevant year's Annual Report on Remuneration.	None.
Benefits			
To provide market-competitive benefits.	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. 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. No recovery or withholding applies.	Benefits provided may vary by role and individual circumstance and are reviewed periodically. There is no overall maximum.	None.
Pension (or cash allowance)			
To provide market competitive retirement benefits in line with the global workforce.	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. No recovery or withholding applies.	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.	None.

Purpose and link to strategy	Operation	Maximum opportunity	Performance measures
Performance-related variable remuneration			
Short-Term Incentive Plan (STIP)			
To provide alignment between the successful delivery of annual strategic business priorities and reward.	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. 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. Malus and clawback provisions may be applied in exceptional circumstances as detailed in the notes to this table.	The overall policy maximum for Executive Directors is 180% of basic salary. The bonus pays out from threshold at 25% to target at 50% and 100% at maximum performance.	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.
Long-Term Incentive Plan (LTIP)			
To incentivise and reward participants over the long term for sustained performance and delivery of the business strategy and shareholder value. Provides longer-term alignment with the shareholder experience.	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. 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. Malus and clawback provisions may be applied in exceptional circumstances as detailed in the notes to this table.	The overall policy maximum for Executive Directors is 300% of basic salary. For threshold performance, payment starts at 25%.	The targets, measures and weightings will be determined annually by the Committee prior to the grant of the award. This is likely to include a market measure (such as relative TSR) and an internal financial measure. 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. For 2023, the Committee has selected relative TSR and EPS growth as the appropriate measures, as they align with long-term shareholder interests.

Remuneration Policy table for Executive Directors continued

Purpose and link to strategy	Operation	Maximum opportunity	Performance measures
Shareholding policy			
To provide alignment between the interests of Executive Directors and shareholders over the longer term.	Shareholding guidelines will be 200% of basic 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). **Post-cessation shareholding policy** 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.	Not applicable.	Not applicable.

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.

The Chief Financial Officer holds 2.8m shares resulting from arrangements made before the IPO. These normally vest in 36 equal instalments on a monthly basis as from December 2021 but the Board can allow earlier vesting and they will vest in full on a change of control. He cannot normally sell the shares until vesting and if he leaves (other than for one of the good leaver reasons listed below in relation to the LTIP) he may be required to sell the shares for the lesser of the price paid for them or their then market value.

Minor amendments

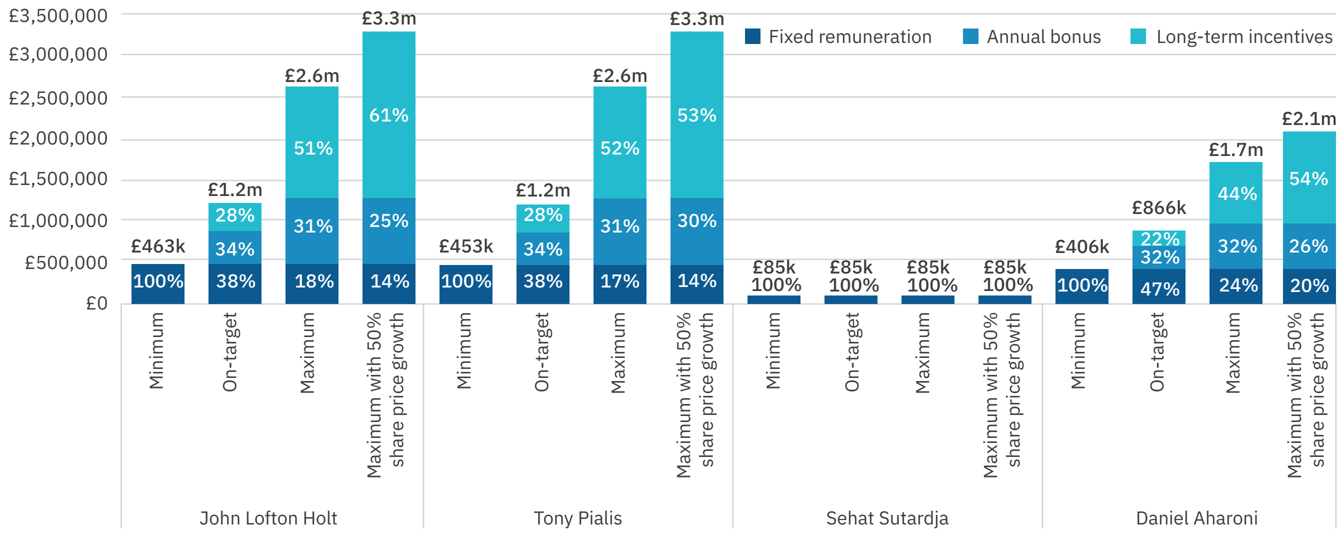
The Committee may make minor amendments to the Policy (for example for tax, regulatory, exchange control or administrative purposes) without obtaining shareholder approval.

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 and President & Chief Executive Officer to show the theoretical entitlement under the Policy (at the same opportunity level as for the Chief Financial Officer), for which they have opted to waive participation for 2022 and 2023. Sehat Sutardja is not entitled to participate in any incentive arrangements.

Illustrative scenario analysis (2023)



Illustrations of application of the Policy continued

Minimum	Fixed remuneration (salary, pension 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 the anticipated bonus and LTIP award levels for 2023 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:

i) an interim appointment is made to a fill an Executive Director role on a short-term basis; and

ii) 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 (see below) 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 months' 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 basic 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.

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. However, as described on page 33, Michelle Senecal de Fonseca has been appointed as the Workforce Engagement NED and will be engaging with employees on a range of topics including remuneration.

Remuneration Policy table for Non-Executive Directors

Purpose and link to strategy	Operation	Maximum opportunity	Performance measures
Fees			
The Company offers competitive fee arrangements to attract and retain high calibre and experienced individuals to serve on the Board.	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.	Total fees paid will be within the limit stated in the Articles of Association.	None.
Benefits.	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.	Not applicable.	Not applicable.

Annual Report on Remuneration

This section of the Directors' remuneration report provides details of:

- how Directors were paid for the year ended 31 December 2022; and
- how we propose to implement our Policy for 2023.

This section of the report will be subject to an advisory vote at the 2023 AGM.

Remuneration paid to Executive Directors in respect of 2022

Single figure of remuneration for the 2022 financial year (audited)

The tables below set out the total remuneration paid to Executive Directors for the years ended 31 December 2022 and 31 December 2021.

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**	**—**

1. Benefits represent the taxable value of benefits paid and comprise private family health insurance. John Lofton Holt self insures and the Company reimburse him.
2. Pension contribution: Only Daniel Aharoni participates in the Company pension scheme and the employer contribution made for him is 10% of salary, which is aligned to that of the wider workforce.
3. 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 on page 97, one-third of the bonus payment will be deferred into shares for a period of two years.

31 December 2021

Director	Salary and fees[1]	Benefits[2]	Pension/cash in lieu of pension[3]	Bonus[4]	LTIP award	Total remuneration	Total fixed remuneration	Total variable remuneration
John Lofton Holt	£280,357	—	—	—	—	£280,357	£280,357	—
Tony Pialis	£281,021	£1,146	—	—	—	£282,167	£282,167	—
Daniel Aharoni	£232,653	£2,561	£27,708	£273,750	—	£536,672	£262,922	£273,750
Sehat Sutardja	£53,531	—	—	—	—	£53,531	£53,531	—

1. Equates to an annual, post-Admission salary for John Lofton Holt, Tony Pialis, Daniel Aharoni and Sehat Sutardja of £450,000, £450,000, £365,000 and £85,000 respectively. Prior to Admission, Tony Pialis had a salary of CAD$100,000 per annum and a portion of this has been included, representing his salary between the date of completion of the pre-IPO reorganisation (14 May 2021) and the day prior to Admission (17 May 2021). Service agreements with the Company for the Executive Directors took effect on date of the Admission (18 May 2021).
2. Benefits represent the taxable value of benefits paid and comprise private family health insurance in respect of John Lofton Holt, Tony Pialis and Daniel Aharoni. Daniel Aharoni was a Director of the Company as from 11 January 2021 and the value of benefits has been included as from that date.
3. Pension contribution: Only Daniel Aharoni participates in the Company pension scheme and his contribution is 10% of salary, which is aligned to that of the wider workforce. Daniel Aharoni was a Director of the Company as from 11 January 2021 and the value of his pension/cash in lieu of pension has been included from that date. It does not equate to 10% of his salary in this table, as prior to 18 May 2021, he was an employee of Alphawave IP Inc, which became a subsidiary of the Company on 14 May 2021, and the proportion of his salary prior to 14 May 2021 has not been included.
4. 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, as this reflects work undertaken in his capacity as an Executive Director and employee of the Company, post-Admission. As per the Remuneration Policy on page 97, one-third of the bonus payment will be deferred into shares for a period of two years.

Annual bonus out-turn for 2022

	Weighting	Threshold	Target	Maximum	Actual	% achievement
Measure	%	US$m	US$m	US$m	US$m	(of target)
Revenue	60%	$125.0m	$136.0m	$150.0m	$185.4m	136%
Adjusted EBITDA	40%	$56.0m	$61.0m	$70.0m	$46.8m	77%

Based on this performance, the Committee determined that the outcome for the Chief Financial Officer should be an on-target payout of 68% of base salary. In exercising their discretion, the Committee has had regard to any accounting judgements which have had a material impact on the performance measures, including management's judgement to eliminate the Group's share of gains from sales to WiseWave as a loss from an equity-accounted joint venture in the consolidated statement of comprehensive income. The other Executive Directors did not participate in the bonus scheme for 2022. Going forward, we recognise the expectation of us as a listed company to set and clearly disclose threshold, target and maximum performance targets, and assess performance against these. The Committee has approved these for the 2023 plan.

LTIP awards and vesting within the year

As Alphawave Semi is only in its second year as a listed company, there is no LTIP vesting to report. In 2022, the Chief Financial Officer received conditional awards of 424,275 ordinary shares under the 2022 LTIP award and 51,741 ordinary shares under the 2021 Bonus Deferral Award.

2021 Bonus Deferral Award

Each award is a conditional award that shall vest on the second anniversary of the Award Date, being 8 June 2024, with no holding requirement and would not be entitled to dividend equivalents.

2022 LTIP Award

The 2022 LTIP Award is subject to three-year relative TSR (70% weighting) and EPS growth (30% weighting) performance conditions as summarised in the table below:

Tranche	Weighting	Performance condition	Index	Threshold (25% vesting)	Maximum (100% vesting)
1	35%	Relative TSR	FTSE 250	Median	Upper quartile
2	35%	Relative TSR	FTSE All-World Technology Index	Median	Upper quartile
3	30%	Adjusted EPS growth	Not applicable	40% CAGR	60% CAGR

In considering the consensus estimates and adjusted EPS, the Company excluded any potential impact of WiseWave Technology Co. Ltd ('WiseWave') exercising its extension option under the subscription licence agreement. Exercise of that option was at the discretion of WiseWave and employees subject to the 2022 LTIP did not benefit from the financial impact therefrom. In addition, due to insufficient certainty about the specific closing timeframe of the proposed acquisition of OpenFive, the Committee did not consider that acquisition in determining the targets. Adjusted EPS means, for any financial year, Alphawave Semi's earnings per share as shown in the Company's accounts for that year, adjusted as the Committee considers appropriate for one-off expenditure or revenue (such as costs associated with mergers and acquisitions), expenses that vary significantly between periods (such as share-based payments) and expenses that do not relate to Alphawave Semi's operating performance (such as exchange gains or losses).

Deferred Shares Plan

As set out in last year's report, conditional share awards were granted under the Bonus Deferral Award plan to Executive Directors for the deferred element of their FY21 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-Jun-22	115,858	2.24	51,741

LTIP

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-Jun-22	950,037	2.24	424,275

% Change in pay 2021-2022

	Salary Change in 2022 (%)	Benefits Change in 2022 (%)	Bonuses Change in 2022 (%)
Directors[1]			
John Lofton Holt[2]	61%	100%	0%
Tony Pialis[2]	60%	127%	0%
Daniel Aharoni[2]	57%	61%	(10)%
Sehat Sutardja	59%	0%	0%
Non-Executive Directors[1]			
Jan Frykhammar	16%	0%	0%
Michelle Senecal de Fonseca[3]	88%	0%	0%
Rosalind Singleton	61%	0%	0%
Victoria Hull	61%	0%	0%
Susan Buttsworth	41%	0%	0%
Paul Boudre	61%	0%	0%
Employees[4]	4%	40%	59%

1. Directors and Non-Executive Directors remuneration relates to annual, post-Admission salaries. Prior to Admission, Tony Pialis had a salary of CAD$100,000 per annum and a portion of this has been included, representing his salary between the date of completion of the pre-IPO reorganisation (14 May 2021) and the day prior to Admission (17 May 2021). Service agreements with the Company for the Executive Directors took effect on date of the Admission (18 May 2021).
2. The increase in benefits for Directors reflect the benefits for a full year. In 2021, Tony Pialis and Daniel Aharoni only received benefits post-IPO, whilst John Lofton Holt received no benefits.
3. During 2022, Michelle Senecal de Fonseca was further appointed as the Workforce Engagement NED which meant that she was entitled to a fee increase.
4. The increase in employee salaries and bonuses has been calculated by taking the figures per employee in 2021, and comparing with the figures in 2022 (for those still in employment).

Application of Policy in 2023

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 Executive Director of the Company following the publication of the audited results of the Company for FY2022. Daniel Aharoni will be treated in accordance with the Directors' Remuneration Policy. He will receive monthly payments of base salary for his 12 month notice period, subject to mitigation and pay in lieu of accrued but untaken holiday. He will not be 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 will lapse in full. His unvested restricted shares acquired prior to IPO will continue to vest each month until December 2024 in accordance with their terms. Daniel Aharoni will be subject to post-employment shareholding requirements as set out in the Director's Remuneration Policy. Full details will be disclosed in the Directors' Remuneration Report for the financial year ended 31 December 2023.

Base salary and benefits

The table below shows the 2022 salary levels for each Executive Director and 2023 proposed. No changes to these salary levels are being made for 2023.

Director	2022 Salary level	2023 Salary level	Proposed change for 2023 (%)
John Lofton Holt	£450,000	£450,000	0%
Tony Pialis	£450,000	£450,000	0%
Daniel Aharoni	£365,000	£365,000	0%
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 2023.

Annual bonus

As mentioned above, Daniel Aharoni will not participate in the 2023 annual bonus plan. The Board has commenced the search for his successor. Depending on the start date for his successor, the new CFO may participate in the 2023 annual bonus. Further updates will be provided in due course. The President & Chief Executive Officer will continue to waive participation and Sehat Sutardja is not entitled to participate. Revenue and adjusted EBITDA have been selected as the performance measures as they are two strategically critical financial measures for the Group. The performance measures and weightings for 2023 are outlined below:

Measure	Weighting %
Revenue	60%
Adjusted EBITDA	40%

The full targets and performance against them will be disclosed in detail in next year's report as commercial sensitivity prevents disclosure on a forward-looking basis.

Long-term incentives (audited)

As mentioned above, Daniel Aharoni will not participate in the 2023 LTIP. Depending on the start date for his successor, the new CFO may participate in the 2023 LTIP. Further updates will be provided in due course. The President & Chief Executive Officer will continue to waive participation and Sehat Sutardja is not entitled to participate. The performance measures, weightings and targets for 2023 are outlined below:

Measure	Weighting	Threshold (25% vesting)	Maximum (100% vesting)
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%	40% CAGR	60% 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 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.

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 2022.

Executive Directors	Total number of interests in shares (31 December 2022)	Vested without performance conditions	Unvested with performance conditions	Unvested without performance conditions	Shares held as % of salary[2]	Total number of interests in shares (28 April 2023)
John Lofton Holt[1]	26,624,585	—	—	—	5,842%	26,624,585
Tony Pialis	95,333,160	—	—	—	20,917%	95,333,160
Daniel Aharoni	3,276,016	1,011,111	424,275	1,840,630	886%	3,276,016
Sehat Sutardja	91,526,658	—	—	—	106,318%	96,275,385
Total	**216,760,419**	**1,011,111**	**424,275**	**1,840,630**		**221,509,146**

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 £0.99 as at 31 December 2022.

Application of Policy in 2023 continued

Directors' interests in the shares of the Company (audited) continued

The Chief Financial Officer 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. These shares, to the extent not vested, have been included in the above table in the column titled 'Unvested without performance conditions'. 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 2022)	Total number of interests in shares (28 April 2023)
Jan Frykhammar	48,780	48,780
Michelle Senecal de Fonseca	52,399	52,399
Rosalind Singleton	31,668	52,420
Victoria Hull	102,821	102,821
Susan Buttsworth	48,780	48,780
Paul Boudre	48,780	48,780
Total	**333,228**	**353,980**

Alignment to shareholder interests

Current levels of ownership by the Executive Directors, and the date by which the goal should be achieved, are shown below.

Based on a one-month volume-weighted average share price of £0.99 as at 31 December 2022, 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. Daniel Aharoni currently holds or is entitled to shares equivalent to 892% of base salary, which is in excess of the 200% of salary requirement.

Director	Requirement as a % of salary	Current % of salary held	Number of shares owned	% of issued share capital	Date of requirement to be achieved
John Lofton Holt	200%	5,842%	26,624,585	3.83%	n/a
Tony Pialis	200%	20,917%	95,333,160	13.72%	n/a
Daniel Aharoni	200%	757%	2,800,000	0.40%	n/a
Sehat Sutardja	200%	106,318%	91,526,658	13.17%	n/a

Note: % of issued share capital based on issued shares as at 31 December 2022.

Non-Executive Directors' single figure of remuneration (audited)

The remuneration of the Non-Executive Directors for 2022 is set out below.

Non-Executive Directors	Fees 2022	Benefits 2022	Total 2022
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**
Total	£512,250	–	**£512,250**

No changes to fees are being proposed for 2023.

Payments to past Directors (audited)

There were no payments made to past Directors.

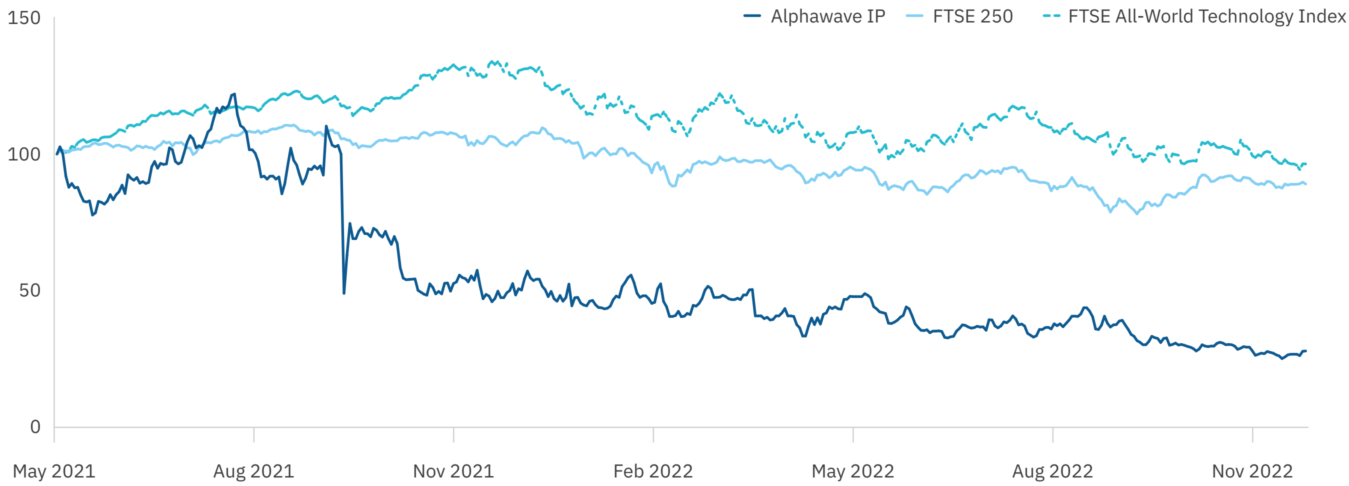
Payments for loss of office (audited)

There were no payments made to past Directors.

CEO pay history and Company performance

As we have only completed one partial and one full financial year as a listed company, only data for this period is shown below. This will be built on over the years to come, to eventually present a view of total remuneration for the President & Chief Executive Officer over ten years.

Single figure of remuneration for the CEO	2021	2022
President & Chief Executive Officer – Tony Pialis	£332,758	**£452,600**
Annual bonus payout (% of maximum)	n/a	**n/a**
LTIP payout (% of maximum)	n/a	**n/a**



The graph above shows the value, as at 31 December 2022, 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 2022 and the prior year, since the Group was listed in May 2021.

	2021	2022
Employee remuneration	US$20.9m	**US$50.6m**
Distributions to shareholders	n/a[1]	**n/a[1]**

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.

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.

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.

Remuneration Committee composition and meetings

The Remuneration Committee is comprised entirely of Independent Non-Executive Directors. Victoria Hull is the Chair and its other members are Jan Frykhammar and Paul Boudre.

Biographical details are provided on pages 70 to 73.

During 2022, the Committee asked the Executive Directors 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. It also engages regularly with the Head of Human Resources on remuneration matters, who is invited to attend Committee meetings.

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 £96,531.

Victoria Hull
Chair of the Remuneration Committee

19 May 2023

Directors' report

The Directors present their report, together with the audited financial statements, for the period ended 31 December 2022.

The Directors' report, together with the strategic report on pages 1 to 69, 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 16 to 17
Risk management	Principal risks and uncertainties, pages 66 to 69
Going concern and viability statement	Viability statement, page 91
Disabled employees	ESG, Our People section, pages 35 to 41
Business relationship with suppliers, customers and other stakeholder engagement	Stakeholder engagement, pages 28 to 30
Climate-related financial disclosures, greenhouse gas consumption, energy consumption and energy efficiency action	ESG, pages 34 to 54 Climate-related disclosures
Workforce engagement	ESG, Our People section, pages 35 to 41

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 first annual evaluation of the operation and effectiveness of the Board, its Committees and individual Directors was undertaken in 2022 page 84. 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.

As set out in the 2021 Audit Committee report, the Audit Committee undertook a review of the need for an internal audit function during the course of 2022. As a result of the review, the Audit Committee recommended to the Board to keep this area under review.

In 2022 the Audit Committee undertook the first 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 2021 results in April 2022 and resulted in the change of the lead audit partner, as described in the Audit Committee report.

The first annual evaluation of the Group's risk management and internal control systems (in accordance with Provision 29 of the Code) took place in 2022.

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 on pages 96 to 97.

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 information on pages 70 to 116 (all of which forms part of this Directors' 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, principal activities and branches

The Company acts as a holding company for the Group of subsidiaries. The Group's subsidiaries are set out on page 176 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 184 to 186 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 2022 was 266,552,359, representing 38.3% of the Company's issued ordinary share capital.

Substantial shareholdings

As at 31 December 2022 and at 31 March 2023, 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.

	As at 31 December 2022		As at 31 March 2023	
Holder	Number of shares	Voting rights (%)	Number of shares	Voting rights (%)
The Tony Pialis (2017) Family Trust[1]	95,333,160	13.7%	95,333,160	13.6%
The Rajeevan Mahadevan (2017) Family Trust[2]	95,333,160	13.7%	95,333,160	13.6%
2641239 Ontario Inc.[3]	95,333,140	13.7%	95,333,140	13.6%
Sutardja Family LLC[4]	91,526,658	13.2%	96,275,358	13.7%
BlackRock	52,439,872	7.5%	26,439,985	3.8%
Fidelity International	35,011,768	5.0%	47,870,175	6.8%
Artisan Partners	29,379,801	4.2%	28,421,887	4.1%
July Twelve Capital Limited[5]	26,624,584	3.8%	26,624,584	3.8%
Capital Group	—	Below 3%	27,998,832	4.0%

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.

Directors’ report continued

Authority to purchase own shares

At a general meeting held on 6 June 2022, shareholders passed a special resolution in accordance with the Companies Act 2006 to authorise the Company to purchase in the market a maximum of 66,944,130 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 2022 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 92 to 112
Directors of the Company	Board of Directors, pages 70 to 73
Dividends	Financial review, pages 60 to 65
Financial instruments	Financial statements, pages 152 to 154
Important events since the financial year end	Events after the balance sheet date, pages 7 and 198
Statement of Directors’ responsibilities	Directors’ responsibilities, page 117

Appointment of auditor

On the recommendation of the Audit Committee, resolutions will be proposed at the 2023 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 22 June 2023. 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

19 May 2023

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 4.1.14R,the financial statements will form part of the annual financial report prepared using the single electronic reporting format under the TD ESEF Regulation.The auditor's report on these financial statements provides no assurance over the ESEF format.

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

19 May 2023

Alphawave IP Group plc
6th Floor
65 Gresham Street
London
EC2V 7NQ
United Kingdom

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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 2022 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 2022 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 two financial years ended 31 December 2022. 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: group financial statements as a whole	$1.8m (2021:$1.0m) 1.0% of revenue (2021: 3.0% of normalised profit before tax)	
Coverage	97% (2021:95%) of revenue (group profit before tax)	
Key audit matters		**vs 2021**
Recurring risks	Revenue recognition	◀▶
	New: Recoverability of parent company's investments in subsidiaries (Parent)	▲
Event driven	**New:** Valuation of acquired identifiable intangibles	▲
	New: Control environment	▲

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
Revenue recognition $137.6 million (2021:$ 89.9 million) (IP and NRE, IP and NRE – Reseller, IP and NRE –JV) *Refer to page 89 (Audit Committee Report), page 143 & 155 (accounting policy) and page 162 (financial disclosures)*	**Accounting application** The Group, including the entities acquired during the year, 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. 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. The financial statements (note 5) disclose the sensitivity estimated by the Group.	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 Our procedures included: — **Test of details:** We assessed whether the Group's revenue recognition policy was in line with the requirements of the accounting standards, which included 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 and whether any alternative treatment existed; — 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 reperformance**: We recalculated the stage of completion based on the hours incurred as at year end and the Group's estimate of future hours 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 compared 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. **Our results** — We found the revenue recognition to be acceptable (2021: acceptable).

2. Key audit matters: our assessment of risks of material misstatement (cont.)

	The risk	Our response
Valuation of acquired identifiable intangibles ($154.1 million) *Refer to page 89 (Audit Committee Report), pages 142 & 159 (accounting policy) and page 194 (financial disclosures).*	**Forecast based valuation** During the financial year ended 31 December 2022, Alphawave IP Group plc acquired three businesses (as disclosed in Note 33), being Precise-ITC, Inc., OpenFive and Banias Labs for a combined consideration of $435.6m. We identified the valuation of the acquired identifiable intangibles as a risk because of the inherent complexity, estimation uncertainty, and judgements involved in determining and applying assumptions to assess the fair value of the identified intangibles, and because of the size of the acquisitions. Auditor judgement is required to assess whether the Group's overall estimate, taking into account key inputs such as revenue growth rates, discount rates and projected cash flows, fall within an acceptable range. As part of our risk assessment, we determined that the valuation of intangible assets 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. The financial statements (note 3) disclose the sensitivity estimated by the Group.	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. Our procedures included: — **Assessing the valuer's credentials**: We evaluated the competence and independence of the expert engaged by the directors to assist in the purchase price allocation and whether they had been appropriately instructed and were provided with complete, accurate data on which to base their valuations. — **Our corporate finance expertise and our sector knowledge:** We evaluated, with the assistance of our own valuation specialist, the basis upon which the Directors identified the identifiable intangible assets acquired. We assessed whether the measurement bases used to estimate the fair values of the intangible assets were reasonable, taking account of our experience of similar assets in other comparable situations and our assessment of the work performed by the third party expert. — **Assessing transparency:** We assessed whether the Group's disclosures about the sensitivity relating to key assumptions on the valuation of acquired intangibles are adequate. **Our results** — We found the valuation of identified intangibles to be appropriate

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2. Key audit matters: our assessment of risks of material misstatement (cont.)

	The risk	Our response
Control environment *Refer to page 90 (Audit Committee Report)*	The Group made three acquisitions during the year, which required significant effort in integration and put pressure on the existing systems, processes and controls in place. This highlighted weaknesses in the control environment in respect of financial reporting. Management also experienced difficulty in obtaining appropriate financial books and records in respect of the Open Silicon acquisition. These changes represent a financial reporting risk while the integration of these acquisitions takes place and systems, processes and controls are updated. There is an increased risk of breakdown in internal financial controls during this period of time and an increased risk of inaccurate or incomplete financial data, which would in turn increase the risk of material misstatements to the Group financial statements.	Our response included continuing to use a lower percentage in determining performance materiality and revisiting our risk assessment. Additionally, we performed substantive procedures in response to the risk and did not seek to rely on any controls across the majority of our audit, which included: — **Audit timeline and effort:** modified the planned scope of the audit, extending the timeline of audit delivery and engaging additional resource; — **Extended scope:** additional substantive procedures in respect of opening balances were performed by the Group audit team and component audit team of Open-Silicon China; — **Enquiry of customers:** customer circularisation was performed in respect of the Open-Silicon component in China; — **Tests of detail:** for all in scope components carried out focused journal testing to look for journals that we considered had characteristics of being indicative of management override of control; — **Enquiry of personnel:** for all in scope components made inquiries of individuals involved in the financial reporting process about inappropriate or unusual activity relating to the processing of journal entries and other judgements; — **Enquiry of management:** for all in scope components expanded our enquires of senior management in respect of compliance matters; — **Accounting analysis (estimates):** assessed accounting estimates for bias and evaluated whether the circumstances producing the bias, if any, represent a risk of material misstatement due to fraud or error. This included, but was not limited to, the assumptions applied over the opening balance sheet of the acquisitions made in year – see key audit matter on Acquisition Accounting on page 120; — **Accounting analysis (audit differences):** considered management's approach to deciding which audit differences were recorded and considered if this presented any management bias. **Our results** We were able to perform the substantive procedures outlined above to address the weaknesses identified in the control environment.

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2. Key audit matters: our assessment of risks of material misstatement (cont.)

	The risk	Our response
Recoverability of parent company's investments in subsidiaries (Parent) ($280.4 million; 2021: $22.4m) *Refer to page 151 (accounting policy) and page 176 (financial disclosures).*	**Low risk, high value** The carrying amount of the Parent Company's investments in subsidiaries represents 39.3% (2021: 4.4%) 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. As part of our risk assessment, we determined that the recoverable amount of certain investments in subsidiaries acquired late in the year have a low degree of estimation uncertainty due to their recent valuation and lack of event triggers, and therefore were not subjected to our procedures.	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. Our audit procedures included: — **Tests of detail**: We compared the carrying amount of the pre-existing 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. **Our results** We found the conclusion that there is no impairment of the carrying amounts of the Parent company's investments in subsidiaries to be acceptable (2021: acceptable).

We continue to perform procedures over related party transactions. However, following our procedures and results from the 2021 audit, 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.

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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 $1,800,000 (2021: $1,000,000), determined with reference to a benchmark of Group revenue (2021: Group profit before tax (PBT), normalised to exclude non-recurring IPO costs and M&A costs), of which it represents 1.0% of group revenue (2021: 3.0% of normalised PBT). We consider total revenue to be the most appropriate benchmark in the current year as we believe it provides a more representative measure of the size of the business following the three business acquisitions in the current year, whereas PBT remains comparatively low.

Materiality for the parent Company financial statements as a whole was set at $1,440,000 (2021: $900,000), determined with reference to a benchmark of Company total assets, of which it represents 0.2% (2021: 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.

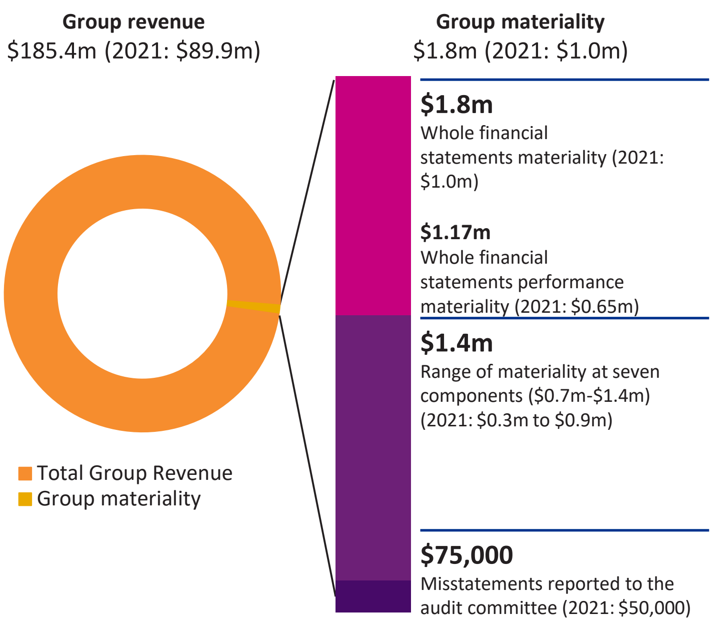
Performance materiality was set at 65% (2021: 65%) of materiality for the financial statements as a whole, which equates to $1,170,000 (2021: $650,000) for the Group and $936,000 (2021: $585,000) for the parent Company. We applied this percentage in our determination of performance materiality based on the level of identified misstatements and control deficiencies during the prior period.

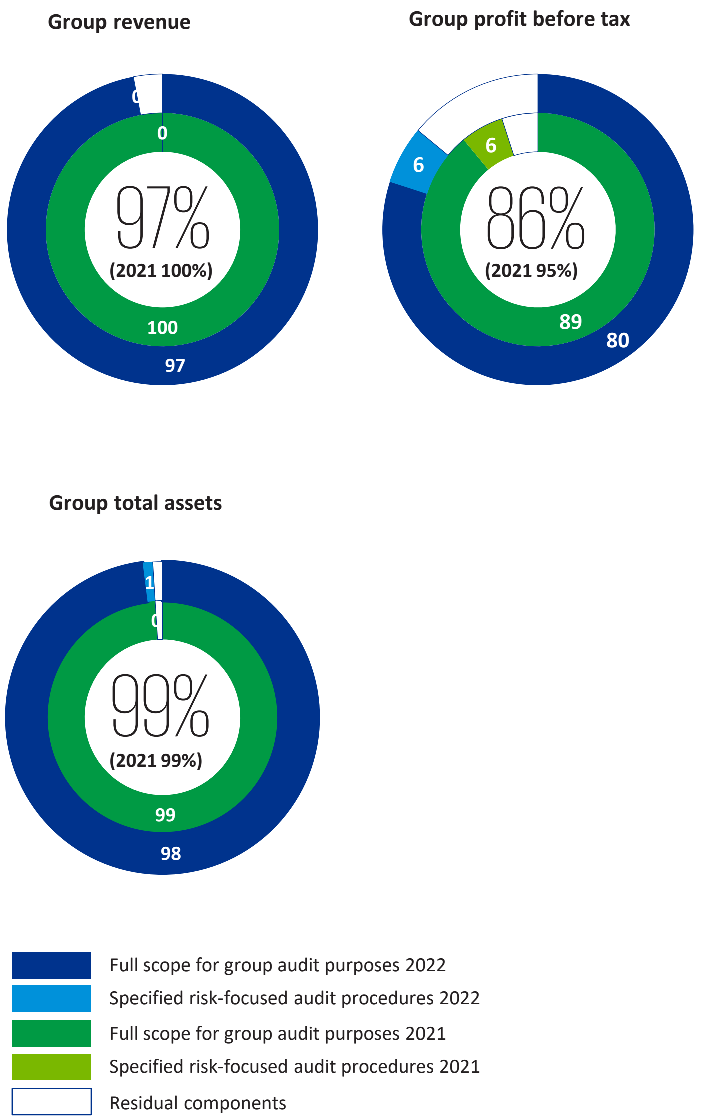
We agreed to report to the Audit Committee any corrected or uncorrected identified misstatements exceeding $75,000 (2021: $50,000), in addition to other identified misstatements that warranted reporting on qualitative grounds.

Of the Group's 14 (2021: five) reporting components, we subjected six (2021: three) to full scope audits for group purposes and one (2021: one) to specified risk-focused audit procedures. The latter were 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 3% (2021: 0%) of total Group revenue, 14% (2021: 5%) of Group profit before tax and 1% (2021: 1%) of total Group assets is represented by seven (2021: one) reporting components, none of which individually represented more than 4% (2021: 5%) 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.





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 $1,440,000 to $720,000 (2021: $900,000 to $300,000), having regard to the mix of size and risk profile of the Group across the components. The work on two of the seven components (2021: none of the six 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 predominately substantive as we placed limited reliance upon the Group's internal control over financial reporting.

The Group team visited two (2021: none) component locations in Canada and the United States to assess the audit risk and strategy.

Video and telephone conference meetings were held with the two component auditors in China and inspection of component audit teams' key work papers in person to evaluate the quality of execution of the 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").

We used our knowledge of the Group, its industry, and the general economic environment to identify the inherent risks to its business model and analysed how those risks might affect the Group's and Company's financial resources or ability to continue operations over the going concern period. The risk that we considered most likely to adversely affect the Group's and Company's available financial resources and/or metrics relevant to debt covenants over this period was the ability to realise the forecasted trading results.

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.

We assessed the completeness of the going concern disclosure.

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;

— 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; and

— we have nothing material to add or draw attention to in relation to the directors' statement in note 2 to the financial statements on the use of the going concern basis of accounting with no material uncertainties that may cast significant doubt over the Group and Company's use of that basis for the going concern period, and we found the going concern disclosure in note 2 to be acceptable

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.

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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 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. These included entries made to unusual or seldom used accounts and unusual postings to cash and cash equivalents.

— Evaluated the business purpose of significant unusual transactions.

— Assessing whether the judgements made in making accounting estimates are indicative of a potential bias .

Identifying and responding to risks of material misstatement due to non-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 non-compliance 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 non-compliance 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.

5. Fraud and breaches of laws and regulations – ability to detect (cont.)

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.

Disclosures of emerging and principal risks and longer-term viability

We are required to perform procedures to identify whether there is a material inconsistency between the directors' disclosures in respect of emerging and principal risks and the viability statement, and the financial statements and our audit knowledge.

Based on those procedures, we have nothing material to add or draw attention to in relation to:

— the directors' confirmation within the going concern and viability statement on page 91 that they have carried out a robust assessment of the emerging and principal risks facing the Group, including those that would threaten its business model, future performance, solvency and liquidity;

— the Principal Risks disclosures describing these risks and how emerging risks are identified, and explaining how they are being managed and mitigated; and

— the directors' explanation in the going concern and viability statement of how they have assessed the prospects of the Group, over what period they have done so and why they considered that period to be appropriate, and their statement as to whether they have a reasonable expectation that the Group will be able to continue in operation and meet its liabilities as they fall due over the period of their assessment, including any related disclosures drawing attention to any necessary qualifications or assumptions.

Our work is limited to assessing these matters in the context of only the knowledge acquired during our financial statements audit. 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 absence of anything to report on these statements is not a guarantee as to the Group's and Company's longer-term viability.

Corporate governance disclosures

We are required to perform procedures to identify whether there is a material inconsistency between the directors' corporate governance disclosures and the financial statements and our audit knowledge.

Based on those procedures, we have concluded that each of the following is materially consistent with the financial statements and our audit knowledge:

— the directors' statement that they consider that the annual report and financial statements 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; or

— the section of the annual report describing the work of the Audit Committee does not appropriately address matters communicated by us to the Audit Committee, and how these issues were addressed; and

— the section of the annual report that describes the review of the effectiveness of the Group's risk management and internal control systems.

KPMG

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 117, 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 using the single electronic reporting format specified in the TD ESEF Regulation. This auditor's report provides no assurance over whether the annual financial report has been prepared in accordance with that format.

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

19 May 2023

Consolidated statement of comprehensive income

for the year ended 31 December 2022

Continuing operations	Note	Year ended 31 December 2022 US$'000	Year ended 31 December 2021 US$'000
Revenue	5	**185,406**	89,931
Cost of sales		**(60,777)**	(5,199)
Gross profit		**124,629**	84,732
Research and development/engineering	6	**(69,358)**	(29,444)
Sales and marketing		**(4,647)**	(1,275)
General and administration		**(17,167)**	(5,364)
of which expected credit loss	28	*(2,184)*	—
Other expenses		**4,170**	(12,614)
Operating profit		**37,627**	36,035
'Other expenses' charged in arriving at operating profit:			
Non-recurring Initial Public Offering costs	11	**—**	(9,961)
M&A costs/professional costs		**(16,973)**	(533)
Share-based payment	27	**(15,695)**	(6,143)
Exchange gain		**36,838**	4,023
Other expenses		**4,170**	(12,614)
Finance income	10	**1,684**	312
Finance expense	10	**(3,588)**	(320)
Share of post-tax loss of equity-accounted joint ventures	18	**(18,481)**	(12,939)
Profit before tax		**17,242**	23,088
Tax expense	12	**(18,328)**	(13,657)
(Loss)/profit for the year		**(1,086)**	9,431
Other comprehensive expense			
Items that may be reclassified subsequently to profit or loss:			
Exchange (losses) arising on translation of foreign operations		**(74,989)**	(23,096)
Other comprehensive expense for the period, net of tax		**(74,989)**	(23,096)
Total comprehensive expense for the year		**(76,075)**	(13,665)
(Loss)/profit per ordinary share attributable to the shareholders (expressed in cents per ordinary share):			
Basic (loss)/earnings per share (US$ cents)	13	**(0.16)**	1.51
Diluted (loss)/earnings per share (US$ cents)	13	**(0.16)**	1.34

The notes on pages 140 to 198 form part of these financial statements.

Consolidated statement of financial position
as at 31 December 2022

	Note	31 December 2022 US$'000	31 December 2021 US$'000
Assets			
Current assets			
Trade and other receivables	19	**104,634**	13,103
Accrued revenue	5	**58,534**	31,719
Taxes receivable		**2,922**	2,605
Inventories	20	**18,061**	–
Cash and cash equivalents	34	**186,231**	500,964
Total current assets		**370,382**	548,391
Non-current assets			
Property and equipment	14	**13,421**	1,626
Intangible assets	15	**161,406**	1,167
Goodwill	16	**331,886**	–
Right-of-use assets	17	**14,553**	7,672
Investments in equity-accounted joint venture	18	**–**	9,421
Trade and other receivables	19	**19,272**	–
Deferred income taxes	24	**2,680**	–
Total non-current assets		**543,218**	19,886
Total assets		**913,600**	568,277
Liabilities			
Current liabilities			
Trade and other payables	21	**83,055**	5,805
Lease liabilities	17	**3,756**	2,160
Deferred revenue	5	**91,733**	12,661
Income tax payable		**–**	6,970
Flexible spending account	5	**5,200**	6,819
Loans and borrowings	22	**5,000**	–
Total current liabilities		**188,744**	34,415
Non-current liabilities			
Lease liabilities	17	**11,177**	5,668
Deferred income taxes	24	**29,650**	422
Trade and other payables	21	**10,555**	–
Loans and borrowings	22	**205,201**	–
Total non-current liabilities		**256,583**	6,090
Total liabilities		**445,327**	40,505
Net assets		**468,273**	527,772

Consolidated statement of financial position continued
as at 31 December 2022

	Note	31 December 2022 US$'000	31 December 2021 US$'000
Issued capital and reserves attributable to owners of the parent			
Share capital	25	**9,751**	9,399
Preference shares	25	**—**	—
Share premium account	26	**775**	—
Share-based payment reserve	27	**18,189**	4,777
Merger reserve	26	**(793,216)**	(793,216)
Foreign exchange reserve	26	**(96,707)**	(21,718)
Retained earnings	26	**1,329,481**	1,328,530
Total equity		**468,273**	527,772

The financial statements on pages 128 to 139 were approved and authorised for issue by the Board of Directors on 19 May 2023 and were signed on its behalf by:

Tony Pialis
Director

The notes on pages 140 to 198 form part of these financial statements.

	Note	31 December 2022 US$'000	31 December 2021 US$'000
Assets			
Current assets			
Trade and other receivables	19	**14,194**	146
Amounts owed by Group undertakings	19	**14,769**	367
Taxes receivable		**364**	205
Cash and cash equivalents	34	**125,729**	463,360
Total current assets		**155,056**	464,078
Non-current assets			
Investments in subsidiaries	18	**280,373**	22,391
Amounts owed by Group undertakings	19	**260,011**	22,997
Trade and other receivables	19	**17,091**	—
Total non-current assets		**557,475**	45,388
Total assets		**712,531**	509,466
Liabilities			
Current liabilities			
Trade and other payables	21	**12,400**	1,013
Amounts owed to Group undertakings	21	**—**	150
Income tax payable		**145**	253
Loans and borrowings	22	**5,000**	—
Total current liabilities		**17,545**	1,416
Non-current liabilities			
Trade and other payables	21	**4,423**	—
Loans and borrowings	22	**203,750**	—
Total non-current liabilities		**208,173**	—
Total liabilities		**225,718**	1,416
Net assets		**486,813**	508,050

Company statement of financial position continued

as at 31 December 2022

	Note	31 December 2022 US$'000	31 December 2021 US$'000
Issued capital and reserves attributable to owners of the parent			
Share capital	25	9,751	9,399
Preference shares	26	—	—
Share premium account	26	775	—
Share-based payment reserve	27	17,909	4,497
Merger reserve	26	(777,751)	(777,751)
Foreign exchange reserve	26	(79,706)	(23,486)
Retained earnings	26	1,315,835	1,295,391
Total equity		486,813	508,050

The Company has taken advantage of the exemption allowed under section 408 of the Companies Act 2006 and has not presented its own statement of comprehensive income in these financial statements. The profit of the Company for the period was US$18.4m (period ended 31 December 2021: loss of US$8.4m).

The financial statements on pages 128 to 139 were approved and authorised for issue by the Board of Directors on 19 May 2023 and were signed on its behalf by:

Tony Pialis
Director

Company registered number: 13073661

The notes on pages 140 to 198 form part of these financial statements.

Consolidated statement of cash flows
for the year ended 31 December 2022

	Note	Year ended 31 December 2022 US$'000	Year ended 31 December 2021 US$'000
Cash flows from operating activities			
(Loss)/profit for the year		(1,086)	9,431
Items not affecting cash:			
Tax expense	12	18,328	13,657
R&D tax credit		(5,198)	(3,039)
Amortisation of intangibles	15	6,159	—
Depreciation of property and equipment	14	2,472	642
Depreciation of right-of-use asset	17	3,036	2,485
Share of loss in joint venture	18	18,481	12,939
Share-based payment	27	15,695	6,143
Finance income	10	(1,684)	(312)
Finance cost	10	3,197	26
Lease interest	10	391	294
Foreign exchange (gain) on Intercompany balances		(8,742)	(112)
		51,049	42,154
Changes in working capital:			
(Increase) in trade and other receivables		(106,937)	(6,879)
(Increase) in Inventories		(3,390)	—
(Increase) in accrued revenue		(24,101)	(21,391)
Increase in trade and other payables		46,363	2,859
Increase in deferred revenue and flexible spending account		44,834	9,764
		(43,231)	(15,647)
Cash generated from operating activities before tax		7,818	26,507
Income tax paid		(19,906)	(7,615)
Net cash generated from operating activities		(12,088)	18,892

The notes on pages 140 to 198 form part of these financial statements.

Consolidated statement of cash flows continued

for the year ended 31 December 2022

	Note	Year ended 31 December 2022 US$'000	Year ended 31 December 2021 US$'000
Cash flows from investing activities			
Purchase of property and equipment	14	(4,209)	(1,129)
Purchase of intangible assets	15	(11,333)	(1,038)
Interest received	10	1,270	312
Investment in joint venture	18	(9,060)	(22,360)
Net cash outflow on acquisition of subsidiaries	33	(410,415)	—
Net cash used in investing activities		(433,747)	(24,215)
Cash flows from financing activities			
Issuance of common shares – Initial Public Offering	25	—	509,003
Issuance of common shares	25	—	1,282
Initial Public Offering share issuance costs	25	—	(20,308)
Exercise of options	27	898	5,089
Proceeds from Initial Public Offering stabilisation	25	—	22,238
Interest paid	10	(650)	(26)
Increase/(decrease) in bank indebtedness		208,750	(54)
Repayment of principal under lease liabilities	17	(3,038)	(2,494)
Net cash generated from financing activities		205,960	514,730
Net (decrease)/increase in cash and cash equivalents		(239,875)	509,407
Cash and cash equivalents at start of year		500,964	14,039
Effects of foreign exchange on cash and cash equivalents		(74,858)	(22,482)
Cash and cash equivalents at end of year	34	186,231	500,964

The notes on pages 140 to 198 form part of these financial statements.

Consolidated statement of changes in equity

for the year ended 31 December 2022

	Note	Ordinary share capital US$'000	Share premium account US$'000	Share-based payment reserve US$'000	Merger reserve US$'000	Currency translation reserve US$'000	Retained earnings equity US$'000	Total US$'000
Balance at 1 January 2022		**9,399**	**–**	**4,777**	**(793,216)**	**(21,718)**	**1,328,530**	**527,772**
Comprehensive income for the year								
(Loss) for the year		–	–	–	–	–	(1,086)	(1,086)
Other comprehensive expense		–	–	–	–	(74,989)	–	(74,989)
Total comprehensive expense for the year		**–**	**–**	**–**	**–**	**(74,989)**	**(1,086)**	**(76,075)**
Contributions by and distributions to owners								
Issue of shares	25	106	775	–	–	–	–	881
Effect of exercise price below nominal value		246	–	(246)	–	–	–	–
Transfer on exercise of share options	27	–	–	(2,037)	–	–	2,037	–
Share-based payments	27	–	–	15,695	–	–	–	15,695
Total contributions by and distributions to owners		**352**	**775**	**13,412**	**–**	**–**	**2,037**	**16,576**
Balance at 31 December 2022		**9,751**	**775**	**18,189**	**(793,216)**	**(96,707)**	**1,329,481**	**468,273**

Tax impact of other comprehensive expense is US$nil.

The notes on pages 140 to 198 form part of these financial statements.

Consolidated statement of changes in equity continued

for the year ended 31 December 2021

	Ordinary share capital US$'000	Preference share capital US$'000	Share premium account US$'000	Share-based payment reserve US$'000	Merger reserve US$'000	Currency translation reserve US$'000	Retained earnings equity US$'000	Total US$'000
Balance at 1 January 2021	1,881	—	—	331	—	1,378	14,201	17,791
Reorganisation accounting	(1,881)	—	—	—	—	—	—	(1,881)
	—	—	—	331	—	1,378	14,201	15,910
Comprehensive income for the year								
Profit for the year	—	—	—	—	—	—	9,431	9,431
Other comprehensive expense	—	—	—	—	—	(23,096)	—	(23,096)
Total comprehensive income/(expense) for the year	—	—	—	—	—	(23,096)	9,431	(13,665)

Tax impact of other comprehensive expense is US$nil.

The notes on pages 140 to 198 form part of these financial statements.

	Note	Ordinary share capital US$'000	Preference share capital US$'000	Share premium account US$'000	Share-based payment reserve US$'000	Merger reserve US$'000	Currency translation reserve US$'000	Retained earnings US$'000	Total equity US$'000
Contributions by and distributions to owners									
Issue of shares, primary	25	124,147	71	384,856	–	–	–	–	509,074
Issue of shares, reorganisation	25	796,958	–	–	–	(793,216)	–	–	3,742
Issue of shares, other	25	313	–	969	–	–	–	–	1,282
Exercise of share options	27	4,064	–	–	(1,060)	–	–	1,060	4,064
Transfer on exercise of share options pre reorganisation	27	–	–	–	(637)	–	–	–	(637)
Effect of exercise price below nominal value	25	14,381	–	(14,381)	–	–	–	–	–
Net costs on issuance of shares relating to Initial Public Offering	25	–	–	1,930	–	–	–	–	1,930
Capital reduction		(930,464)	–	(373,374)	–	–	–	1,303,838	–
Share-based payments	27	–	–	–	6,143	–	–	–	6,143
Shares redeemed		–	(71)	–	–	–	–	–	(71)
Total contributions by and distributions to owners		**9,399**	**–**	**–**	**4,446**	**(793,216)**	**–**	**1,304,898**	**525,527**
Balance at 31 December 2021		**9,399**	**–**	**–**	**4,777**	**(793,216)**	**(21,718)**	**1,328,530**	**527,772**

The notes on pages 140 to 198 form part of these financial statements.

Company statement of changes in equity

for the year ended 31 December 2022

	Note	Ordinary share capital US$'000	Share premium account US$'000	Share-based payment reserve US$'000	Merger reserve US$'000	Currency translation reserve US$'000	Retained earnings US$'000	Total equity US$'000
Balance at 1 January 2022		**9,399**	**–**	**4,497**	**(777,751)**	**(23,486)**	**1,295,391**	**508,050**
Comprehensive income for the year								
Profit for the year		–	–	–	–	–	18,407	18,407
Other comprehensive expense		–	–	–	–	(56,220)	–	(56,220)
Total comprehensive income/(expense) for the year		**–**	**–**	**–**	**–**	**(56,220)**	**18,407**	**(37,813)**
Contributions by and distributions to owners								
Issue of shares	25	106	775	–	–	–	–	881
Effect of exercise price below nominal value		246	–	(246)	–	–	–	–
Transfer on exercise of share options		–	–	(2,037)	–	–	2,037	–
Share-based payments	27	–	–	15,695	–	–	–	15,695
Total contributions by and distributions to owners		**352**	**775**	**13,412**	**–**	**–**	**2,037**	**16,576**
Balance at 31 December 2022		**9,751**	**775**	**17,909**	**(777,751)**	**(79,706)**	**1,315,835**	**486,813**

Tax impact of other comprehensive income/expense is US$nil.

The notes on pages 140 to 198 form part of these financial statements.

	Note	Ordinary share capital US$'000	Preference share capital US$'000	Share premium account US$'000	Share-based payment reserve US$'000	Merger reserve US$'000	Currency translation reserve US$'000	Retained earnings US$'000	Total equity US$'000
Balance at 9 December 2020		–	–	–	–	–	–	–	–
Comprehensive expense for the period									
Loss for the period		–	–	–	–	–	–	(8,447)	(8,447)
Other comprehensive expense		–	–	–	–	–	(23,486)	–	(23,486)
Total comprehensive expense for the period		–	–	–	–	–	(23,486)	(8,447)	(31,933)
Contributions by and distributions to owners									
Issue of shares, primary	25	124,147	71	384,856	–	–	–	–	509,074
Issue of shares, secondary	25	796,958	–	–	–	–	–	–	796,958
Issue of shares, other	25	313	–	969	–	–	–	–	1,282
Exercise of share options	27	4,064	–	–	–	–	–	–	4,064
Reorganisation accounting	25	–	–	–	–	(777,751)	–	–	(777,751)
Effect of exercise price below nominal value	25	14,381	–	(14,381)	–	–	–	–	–
Net costs on issuance of shares relating to Initial Public Offering		–	–	1,930	–	–	–	–	1,930
Capital reduction		(930,464)	–	(373,374)	–	–	–	1,303,838	–
Share-based payments	27	–	–	–	4,497	–	–	–	4,497
Shares redeemed	25	–	(71)	–	–	–	–	–	(71)
Total contributions by and distributions to owners		9,399	–	–	4,497	(777,751)	–	1,303,838	539,983
Balance at 31 December 2021		9,399	–	–	4,497	(777,751)	(23,486)	1,295,391	508,050

Tax impact of other comprehensive income/expense is US$nil.

The notes on pages 140 to 198 form part of these financial statements.

Notes forming part of the consolidated financial statements

for the year ended 31 December 2022

1 General information

Alphawave IP Group plc (the 'Company') is a public limited company whose shares are listed on the main market of the London Stock Exchange and is incorporated and domiciled in England and Wales. The address of its registered office is 6th Floor, 65 Gresham Street, London, United Kingdom, EC2V 7NQ.

The principal activities of the Company and its subsidiaries (the 'Group') are detailed in the Directors' report.

2 Accounting policies

Basis of preparation

The principal accounting policies adopted in the preparation of the consolidated financial statements are set out below. The policies have been consistently applied to all the years presented, unless otherwise stated.

The consolidated financial statements are presented in US$, which is the Group's presentational currency. The ten trading entities in the Group have different functional currencies. Alphawave IP Inc. and Precise are now accounted for in US$, as the primary economic environment has changed due to the proportion and value of US$ transactions increasing. The functional currency change commenced from 1 January 2022. Alphawave Semi US Corp. (formerly Alphawave IP Corp.), Alphawave Semi International Corp., Alphawave IP Limited and Alphawave IP (BVI) Ltd are also in US$ and the Company in GBP. Open-Silicon Japan is in JPY, Open-Silicon Research Private Ltd is in INR, Yuanfang Silicon Technology (Nanjing) Co. Ltd is in RMB and Solanium Labs Ltd. is in ILS. The currencies used by each entity reflect the functional currency of that entity. However, it was decided to use US$ as the Group's presentational currency as substantially all of the Group's revenues and a significant part of the costs are denominated in US$ and it is typically the presentational currency used across the semiconductor industry.

Amounts are rounded to the nearest thousand, unless otherwise stated.

The consolidated financial statements of the Group (the 'consolidated financial statements') have been prepared in accordance with UK-adopted international accounting standards (UK-adopted IFRS). The Company has elected to prepare its parent company financial statements in accordance with FRS 101; these are presented on pages 131 to 132 and 138 to 139.

In preparing separate financial statements the Company has taken advantage of certain disclosure exemptions conferred by FRS 101:

- certain disclosures required under IFRS 15 Revenue from Contracts from Customers, including disaggregation of revenue, details of changes in contract assets and liabilities, and details of incomplete performance obligations;
- paragraphs 91 to 99 of IFRS 13 Fair Value Measurement (disclosure of valuation techniques and inputs used for fair value measurement of assets and liabilities);
- the requirement in paragraph 38 of IAS 1 Presentation of Financial Statements to present comparative information in respect of:
    - paragraph 79(a)(iv) of IAS 1;
    - paragraph 73(e) of IAS 16 Property, Plant and Equipment;
- the requirements of paragraphs 10(d), 10(f), 16, 38A, 38B, 38C, 38D, 40A, 40B, 40C, 40D, 111, 134 and 136 of IAS 1 Presentation of Financial Statements;
- the requirements of IAS 7 Statement of Cash Flows;
- the requirements of paragraphs 30 and 31 of IAS 8 Accounting Policies, Changes in Accounting Estimates and Errors;
- the requirements of paragraph 17 of IAS 24 Related Party Disclosures to disclose key management personnel compensation and 18A of IAS 24 Related Party Disclosures to disclose amounts incurred by the entity for provision of key management personnel services that are provided by a separate management entity; and
- the requirements in IAS 24 Related Party Disclosures to disclose related party transactions entered into between two or more members of a group, provided that any subsidiary which is a party to the transaction is wholly owned by such a member.

The Company has taken advantage of the exemption allowed under section 408 of the Companies Act 2006 and has not presented its own statement of comprehensive income in these financial statements.

In addition, and in accordance with FRS 101, further disclosure exemptions have been applied because equivalent disclosures are included in the consolidated financial statements:

- the requirements of IFRS 7 Financial Instruments: Disclosures.

Where required, equivalent disclosures are given in the Group financial statements.

The preparation of financial statements in compliance with UK-adopted IFRS requires the use of certain critical accounting estimates. It also requires Group management to exercise judgement in applying the Group's accounting policies. The areas where significant judgements and estimates have been made in preparing the financial statements and their effect are disclosed in note 3.

Basis of measurement

The financial statements have been prepared on the historical cost basis except where IFRS requires an alternative treatment, including certain financial instruments.

Changes in accounting policies

a) New standards, interpretations and amendments

The following amendments are effective for the period beginning 1 January 2022:

- Onerous Contracts – Cost of Fulfilling a Contract (Amendments to IAS 37);
- Property, Plant and Equipment: Proceeds before Intended Use (Amendments to IAS 16);
- Annual Improvements to IFRS Standards 2018-2020 (Amendments to IFRS 1, IFRS 9, IFRS 16 and IAS 41); and
- References to Conceptual Framework (Amendments to IFRS 3).

Their adoption has not had any material impact on the disclosures or on the amounts reported in these financial statements.

b) New standards, interpretations and amendments not yet effective

There are a number of standards, amendments to standards, and interpretations which have been issued by the IASB that are effective in future accounting periods that the Group has decided not to adopt early.

The following amendments are effective for the period beginning 1 January 2023:

- Disclosure of Accounting Policies (Amendments to IAS 1 and IFRS Practice Statement 2);
- Definition of Accounting Estimates (Amendments to IAS 8);
- Deferred Tax Related to Assets and Liabilities arising from a Single Transaction (Amendments to IAS 12);
- IFRS 16 Leases (Amendment – Liability in a Sale and Leaseback) Classification of Liabilities as Current or Non-current (Amendments to IAS 1); and
- IAS 1 Presentation of Financial Statements (Amendment – Classification of Liabilities as Current or Non-current).

The following is a list of other new and amended standards which, at the time of writing, had been issued by the IASB but which are effective in future periods:

- IFRS 17 Insurance Contracts (including the June 2020 and December 2021 Amendments to IFRS 17).

In June 2020, the IASB issued Amendments to IFRS 17 to address concerns and implementation challenges that were identified after IFRS 17 was published. The amendments defer the date of initial application of IFRS 17 (incorporating the amendments) to annual reporting periods beginning on or after 1 January 2023. At the same time, the IASB issued Extension of the Temporary Exemption from Applying IFRS 9 (Amendments to IFRS 4) that extends the fixed expiry date of the temporary exemption from applying IFRS 9 in IFRS 4 to annual reporting periods beginning on or after 1 January 2023.

In December 2021, the IASB issued Initial Application of IFRS 17 and IFRS 9 – Comparative Information (Amendment to IFRS 17) to address implementation challenges that were identified after IFRS 17 was published. The amendment addresses challenges in the presentation of comparative information.

IFRS 17 must be applied retrospectively unless impracticable, in which case the modified retrospective approach or the fair value approach is applied. For the purpose of the transition requirements, the date of initial application is the start of the annual reporting period in which the entity first applies the standard, and the transition date is the beginning of the period immediately preceding the date of initial application.

2 Accounting policies continued

Changes in accounting policies continued

The Directors are currently assessing the impact of IFRS 17 and believe adoption of this standard will not have a material impact on the financial statements. The Group established a captive insurance subsidiary in 2022, but this was not providing Directors' and officers' liability insurance to the Group during 2022.

The Directors do not expect any standards which have been issued by the IASB, but are not yet effective, to potentially have a material impact on the Group.

Basis of consolidation

Where the Company has control over an investee, it is classified as a subsidiary. The Company controls an investee if all three of the following elements are present: power over the investee, exposure to variable returns from the investee, and the ability of the investor to use its power to affect those variable returns. Control is reassessed whenever facts and circumstances indicate that there may be a change in any of these elements of control.

The consolidated financial statements present the results of the Company and its subsidiaries (the 'Group') as if they formed a single entity. Intercompany transactions and balances between Group companies are therefore eliminated in full.

Joint ventures are accounted for using the equity method, where the Group's share of post-acquisition profits and losses and other comprehensive income is recognised in the consolidated statement of comprehensive and other comprehensive income (except for losses in excess of the Group's investment in the joint venture unless there is an obligation to make good those losses).

Business combinations

The Company was incorporated on 9 December 2020. On 14 May 2021, a reorganisation of Alphawave's corporate structure was completed, which resulted in the Company being the sole owner of Alphawave IP Inc. Pursuant to an agreement between the Company, Alphawave IP Inc. and each of the members of Alphawave IP Inc., the issued and outstanding Alphawave IP Inc. common shares were exchanged for 20 ordinary shares of the Company with a nominal value of GBP1. As such, the Company issued 563,859,060 ordinary shares increasing its share capital by this amount. At the time of the exchange, the net assets of Alphawave IP Inc. had a book value of GBP13,589,766 which was posted as an investment in the books of the Company and the difference posted to the merger reserve, in line with merger accounting as described below.

The merger reserve in the consolidated financial statements reflects the difference between the share capital of the shares issued in the Company of US$796,958 in exchange for the shares in Alphawave IP Inc. and the share capital of Alphawave IP Inc. of US$3,742 (as at the date of the reorganisation).

The Group reconstruction has been accounted for in accordance with the principles of merger accounting, as a common control transaction under IFRS 3.B1. Alphawave IP Inc was controlled by the same individuals as Alphawave IP Group plc previously, and their rights relative to each other were unchanged. Therefore, the shareholders have a continuing interest in the business, both before and after its transfer. Consequently, these financial statements have been prepared as if Alphawave IP Group plc had always been the holding company.

Other acquisitions are accounted for using the acquisition method. The consideration transferred in a business combination is measured at fair value, which is calculated as the sum of the acquisition-date fair values of assets transferred by the Group, liabilities incurred by the Group to the former owners of the acquiree and the equity interest issued by the Group in exchange for control of the acquiree. Acquisition-related costs are recognised in profit or loss as incurred.

At the acquisition date, the identifiable assets acquired and the liabilities assumed are recognised at their fair value.

Goodwill is measured as the excess of the sum of the consideration transferred, the amount of any non-controlling interests in the acquiree, and the fair value of the acquirer's previously held equity interest in the acquiree (if any) over the net of the acquisition-date amounts of the identifiable assets acquired and the liabilities assumed. If, after reassessment, the net of the acquisition-date amounts of the identifiable assets acquired and liabilities assumed exceeds the sum of the consideration transferred, the amount of any non-controlling interests in the acquiree and the fair value of the acquirer's previously held interest in the acquiree (if any), the excess is recognised immediately in profit or loss as a bargain purchase gain.

When the consideration transferred by the Group in a business combination includes a contingent consideration arrangement, the contingent consideration is measured at its acquisition-date fair value and included as part of the consideration transferred in a business combination.

Changes in fair value of the contingent consideration that qualify as measurement period adjustments are adjusted retrospectively, with corresponding adjustments against goodwill. Measurement period adjustments are adjustments that arise from additional information obtained during the 'measurement period' (which cannot exceed one year from the acquisition date) about facts and circumstances that existed at the acquisition date.

The subsequent accounting for changes in the fair value of the contingent consideration that do not qualify as measurement period adjustments depends on how the contingent consideration is classified. Contingent consideration that is classified as equity is not remeasured at subsequent reporting dates and its subsequent settlement is accounted for within equity. Other contingent consideration is remeasured to fair value at subsequent reporting dates with changes in fair value recognised in profit or loss.

If the initial accounting for a business combination is incomplete by the end of the reporting period in which the combination occurs, the Group reports provisional amounts for the items for which the accounting is incomplete. Those provisional amounts are adjusted during the measurement period (see above), or additional assets or liabilities are recognised, to reflect new information obtained about facts and circumstances that existed as of the acquisition date that, if known, would have affected the amounts recognised as of that date.

Going concern

As of 31 December 2022, the Group had cash and cash equivalents of US$186.2m. Considering the Group's financial position as of 31 December 2022 and its principal risks and opportunities, a going concern analysis has been prepared for the twelve-month period from the date of signing the consolidated financial statements (the going concern period) utilising realistic scenarios and applying severe but plausible downside scenarios.

The Directors' assessment of the Group's ability to continue to adopt the going concern basis of accounting is based on a review of the base case scenario, including the going concern period, ensuring that any relevant post-year end events have been factored into the Directors' forecasts.

The Directors have also considered two severe, but plausible, downside scenarios over the forecast period and the mitigating actions that could be taken:

- Group revenue forecasts, excluding joint venture revenue, are materially reduced by 25% and the interest rate on our debt materially increases by 2% with a controllable mitigating reduction of 10% of operating expenditure and a reduction of 50% in laboratory and prototyping operating and capital expenditure.
- The Group's revenue from customers in China is excluded entirely with no actions taken to reduce the cost base.

Under either scenario, the analysis demonstrates the Group can continue to maintain sufficient liquidity headroom with no default on debt covenants.

Therefore, the Directors believe the Group is adequately resourced to continue in operational existence for at least the going concern period. Accordingly, the Directors consider it appropriate to adopt the going concern basis of accounting in preparing the consolidated and Company financial statements.

Segment information

The Group's management has performed its evaluation for reporting its reportable segments, if any, and concluded that the Group's business constitutes only one operating segment as all its products and services are of similar nature and focus on customers from the same industry. Its entire revenues, expenses, assets and liabilities pertain to the one business as a whole. This has been ratified by the chief operating decision maker (CODM), Tony Pialis (CEO), who is deemed best placed to evaluate the entity's operating results to assess performance and to allocate resources. Therefore, there was no information to be disclosed for operating segments.

Revenue recognition

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.

2 Accounting policies continued

Revenue recognition continued

The Group has the following principal revenue streams:

- IP products & support – 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');
- custom silicon – 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;
- supply of silicon products – contracts with customers for the supply of silicon devices that are developed by the Group to the customer's specification;
- reseller fees – fees receivable under the three-year exclusive IP subscription reseller agreement with VeriSilicon that expires in 2024; and
- income from joint venture – fees receivable under the five-year IP subscription licence agreement with WiseWave that expires in 2026.

IP products & support

The Group's IP products are typically licensed 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.

Prior to the acquisitions of Precise-ITC and OpenFive, the Group licensed only hard IP products.

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 engages with customers to develop custom silicon products 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

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 licenses the Group's IP products to third-party customers under a three-year exclusive IP subscription reseller agreement. Under the agreement, we charge VeriSilicon exclusivity fees for each calendar year that we invoice to them and collect on a quarterly basis. The exclusivity fees represent minimum annual payments by VeriSilicon against which it can offset purchases of IP products for license to third parties at any time during the relevant calendar year. We recognise revenue on the licensing of our IP products to third parties under the agreement by reference to the stage of completion of the related customisation and/or integration project, measured based on the engineering hours spent on work performed to date as a percentage of the estimated total project hours. Any unutilised exclusivity payments cannot be carried forward by VeriSilicon to future calendar years. We therefore recognise any unutilised exclusivity payments as additional revenue at the end of the calendar year.

2 Accounting policies continued

Support continued

Income from joint venture

We have a subscription licence agreement with WiseWave that provides them with right of use over a library of our IP products for a fixed fee spread over a period of five years. 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.

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.

Strategic, integration and other non-recurring items

The Group incurred costs from certain strategic, integration and other non-recurring items, e.g. acquisition-related costs and Initial Public Offering costs. Management has disclosed these separately to enable a greater understanding of the underlying results of the trading business so that the underlying run rate of the business can be established and compared on a like-for-like basis each year.

Defined contribution schemes

Contributions to defined contribution pension schemes are charged to the consolidated statement of comprehensive income in the year to which they relate.

Government grants

Government grants received for qualifying expenditure are netted against the cost incurred by the Group. Where retention of a government grant is dependent on the Group satisfying certain criteria, it is initially recognised as deferred income. When the criteria for retention have been satisfied, the deferred income balance is released to the consolidated statement of comprehensive income or netted against the asset purchased.

Share-based payments

The Group operates an equity-settled, share-based payment compensation plan, under which the entity receives services from employees as consideration for equity instruments, options and RSUs, of the Group. The fair value of the employee service received in exchange for the grant of the options is recognised as an expense over the vesting period.

Share options and RSUs granted to employees are accounted for under the fair value-based method of accounting using fair value for the underlying equity instrument. Fair values are determined in accordance with the Black-Scholes-Merton option-pricing model (BSM). Management exercises judgement in determining the underlying share price volatility, expected forfeitures and other parameters of the calculations. Share options and RSUs granted to service providers are valued using fair value of services obtained, and if that is not determinable, at the fair value of the underlying equity instrument as per BSM.

Where options and RSUs are exercised, the Company issues new shares and the proceeds received, net of any directly attributable transaction costs, are credited to share capital.

If an option or RSU is cancelled this is accounted for as an acceleration of the vesting period and any amount unrecognised is recognised immediately.

Upon expiry of the options or RSUs, the value that had been ascribed to the expired options or RSUs remains in the share-based payment reserve.

When terms of the options or RSUs are modified at a future date, the fair value of the options or RSUs are adjusted for the new terms using the BSM. Any difference in fair value is adjusted as a change to share-based payment reserve and share-based payment expense.

Research and development

Research costs are expensed as incurred. Development expenditures on an individual project are recognised as an intangible asset when the Group can demonstrate:

- the technical feasibility of completing the intangible asset so that it will be available for use or sale;
- its intention to complete the asset and to use or sell it;
- the ability to use or sell the intangible asset;
- how the asset will generate future economic benefits;
- the availability of resources to complete the asset; and
- the ability to measure reliably the expenditure during development.

Foreign currency

Transactions entered into by Group entities in a currency other than the currency of the primary economic environment in which they operate (their functional currency) are recorded at the rates ruling when the transactions occur. Foreign currency monetary assets and liabilities are translated at the rates ruling at the reporting date. Exchange differences arising on the retranslation of unsettled monetary assets and liabilities are recognised immediately in the consolidated statement of comprehensive income.

On consolidation, the results of overseas operations are translated into US$ at rates approximating to those ruling when the transactions took place. All assets and liabilities of overseas operations are translated at the rate ruling at the reporting date. Exchange differences arising on translating the opening net assets at opening rate and the results of overseas operations at actual rate are recognised in other comprehensive income and accumulated in the foreign exchange reserve.

Exchange differences recognised in profit or loss in Group entities' separate financial statements on the translation of long-term monetary items forming part of the Group's net investment in the overseas operation concerned are reclassified to other comprehensive income and accumulated in the foreign exchange reserve on consolidation.

Interest income

Interest income is recorded on an accrual basis and is included in finance income in the consolidated statement of comprehensive income. Interest income from customers is recognised monthly at an agreed annual interest rate over the period in the contract.

Interest income from contracts with customers that contain a significant financing component is recognised monthly over the period of the contract at an annual interest rate that is determined by reference to then-current market interest rates and is included in finance income in the consolidated statement of comprehensive income. Where contracts with customers contain a significant financing component, the consideration due (against which revenue is recognised) is adjusted for the value of the implied interest income.

Borrowing costs

Interest expense is recognised on the basis of the effective interest method and is included in finance expense in the consolidated statement of comprehensive income.

Taxation

The tax expense for the year comprises current and deferred tax. Tax is recognised in the consolidated statement of comprehensive income, except that a charge attributable to an item of income or expense recognised as other comprehensive income is also recognised directly in other comprehensive income.

The current tax charge is calculated on the basis of tax rates and laws that have been enacted or substantively enacted by the reporting date in the countries where the Group operates and generates taxable income.

2 Accounting policies continued

Taxation continued

Deferred tax assets and liabilities are recognised where the carrying amount of an asset or liability in the consolidated statement of financial position differs from its tax base, except for differences arising on:

- the initial recognition of goodwill;
- the initial recognition of an asset or liability in a transaction which is not a business combination and at the time of the transaction affects neither accounting nor taxable profit; and
- investments in subsidiaries and joint arrangements where the Group is able to control the timing of the reversal of the difference and it is probable that the difference will not reverse in the foreseeable future.

Recognition of deferred tax assets is restricted to those instances where it is probable that taxable profit will be available against which the difference can be utilised.

The amount of the asset or liability is determined using tax rates that have been enacted or substantively enacted by the reporting date and are expected to apply when the deferred tax liabilities are settled.

When there is uncertainty concerning the Group's filing position regarding the tax bases of assets or liabilities, the taxability of certain transactions or other tax-related assumptions, then the Group:

- considers whether uncertain tax treatments should be considered separately, or together as a group, based on which approach provides better predictions of the resolution;
- determines if it is probable that the tax authorities will accept the uncertain tax treatment; and
- if it is not probable that the uncertain tax treatment will be accepted, measures the tax uncertainty based on the most likely amount or expected value, depending on whichever method better predicts the resolution of the uncertainty. This measurement is required to be based on the assumption that each of the tax authorities will examine amounts they have a right to examine and have full knowledge of all related information when making those examinations.

Deferred tax assets and liabilities are offset when the Group has a legally enforceable right to offset current tax assets and liabilities and the deferred tax assets and liabilities relate to taxes levied by the same tax authority on either:

- the same taxable Group company; or
- different Group entities which intend either to settle current tax assets and liabilities on a net basis, or to realise the assets and settle the liabilities simultaneously, in each future period in which significant amounts of deferred tax assets or liabilities are expected to be settled or recovered.

Sales made to customers incorporated in overseas jurisdictions may be subject to withholding tax. Since invoices are raised by Group entities which operate under the tax authorities in Canada and the US, to the extent those countries have tax treaties in place with those overseas jurisdictions, withholding tax amounts are treated as prepaid tax and offset against corporation taxes payable.

Goodwill

Goodwill represents the excess of the cost of a business combination over the Group's interest in the fair value of identifiable assets, liabilities and contingent liabilities acquired.

Cost comprises the fair value of assets given, liabilities assumed and equity instruments issued, plus the amount of any non-controlling interests in the acquiree plus, if the business combination is achieved in stages, the fair value of the existing equity interest in the acquiree. Direct costs of acquisition are recognised immediately as an expense.

Goodwill is capitalised as an intangible asset with any impairment in carrying value being charged to the consolidated statement of comprehensive income. Where the fair value of identifiable assets, liabilities and contingent liabilities exceed the fair value of consideration paid, the excess is credited in full to the consolidated statement of comprehensive income on the acquisition date. Goodwill is not amortised but is reviewed for impairment at least annually.

The Group performs an impairment test for non-financial assets (excluding inventories, deferred tax assets and retirement benefit assets) if there is any indication that the recoverable amount will be less than the carrying amount. However, for goodwill or intangible assets with indefinite useful life or that are not yet available for use, an impairment test is performed at a certain time each fiscal year and when any signs of impairment exist. The impairment test is performed by comparing the carrying amount and the recoverable amount of the assets, and if the recoverable amount falls below the carrying amount, an impairment loss is recorded.

The recoverable amount is calculated mainly using the discounted cash flow model, where certain assumptions, including, but not limited to, the useful life of the asset, future cash flows, sales revenue, gross margin, discount rate, and long-term growth rate, are made.

These assumptions are determined based on judgements of management but could be influenced by fluctuations in uncertain future economic conditions. If a revision becomes necessary, it could have a significant impact on the amounts that will be recognised in the consolidated financial statements of subsequent periods. The calculation method of the recoverable amount is stated in note 16, Impairment of non-financial assets.

Intangible assets

Intangible assets are carried at cost less accumulated amortisation and impairment.

Intangible assets are recognised on business combinations if they are separable from the acquired entity or give rise to other contractual/legal rights and the amounts can be reliably estimated. The amounts ascribed to such intangibles are arrived at by using appropriate valuation techniques.

The significant intangibles recognised by the Group and their useful economic lives are as follows:

Developed IP	– 5 years
Developed technology	– 4-8 years
Customer relationships	– 12 years

Expenditure on developed IP is capitalised if it can be demonstrated that:

- it is technically feasible to develop the IP for it to be sold;
- adequate resources are available to complete the development;
- there is an intention to complete and sell the IP;
- sale of the IP will generate future economic benefits; and
- expenditure on the project can be measured reliably.

Property and equipment

Property and equipment are carried at cost less accumulated depreciation and impairment losses, if any. Cost includes initial cost and subsequent expenditures that are directly attributable to the related asset when it is probable that future economic benefits associated with the item will flow to the Group and the cost of the item can be measured reliably. All other repair and maintenance costs are charged to the consolidated statement of comprehensive income during the year they are incurred.

Depreciation is provided on items of property and equipment so as to write off their carrying value over their expected useful economic lives. It is provided at the following rates:

Computer equipment	– 50% straight line
Furniture and fixtures	– 20% straight line
Leasehold improvements	– 40% straight line
Lab equipment	– 50% straight line

Property and equipment acquired during the year are depreciated from the date the asset is available for use as intended until the date of derecognition. The residual values and useful lives are reviewed by management at each reporting date and adjusted if the impact on depreciation is significant. Property and equipment are regularly reviewed to eliminate obsolete items.

An item of property and equipment is derecognised upon disposal or when no future economic benefits are expected from its use. Any gain or loss arising on derecognition of the asset is included in the consolidated statement of comprehensive income in the year the asset is derecognised.

Impairment of tangible and intangible assets

The carrying amounts of the Group's non-financial assets (other than inventories, contract assets and deferred tax assets) are reviewed at each reporting date to determine whether there is any indication of impairment. If any such indication exists, then the asset's recoverable amount is estimated. Goodwill and assets still under development are tested annually for impairment.

For impairment testing, assets are grouped together into the smallest group of assets that includes the asset and generates cash inflows from continuing use that are largely independent of the cash inflows of other assets or cash generating units (CGUs). Goodwill is allocated to CGUs or groups of CGUs that are expected to benefit from the synergies of the related business combination.

An impairment loss is recognised if the carrying amount of an asset or CGU exceeds its recoverable amount. The recoverable amount of an asset or CGU is the higher of its value-in-use and its fair value less costs of disposal. The value-in-use of an asset or CGU 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. 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 the risks specific to the asset of CGU to which the asset belongs.

2 Accounting policies continued

Impairment of tangible and intangible assets continued

Impairment losses are recognised in profit or loss. They are allocated first to reduce the carrying amount of any goodwill allocated to the CGU, and then to reduce the carrying amounts of the other assets in the CGU on a pro rata basis.

Impairment losses in respect of goodwill are not reversed. For other assets, impairment losses recognised in previous periods 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.

Leases

Identifying leases

The Group accounts for a contract, or a portion of a contract, as a lease when it conveys the right to use an asset for a period of time in exchange for consideration. Leases are those contracts that satisfy the following criteria:

- there is an identified asset;
- the Group obtains substantially all the economic benefits from use of the asset; and
- the Group has the right to direct use of the asset.

The Group considers whether the supplier has substantive substitution rights. If the supplier does have those rights, the contract is not identified as giving rise to a lease.

In determining whether the Group obtains substantially all the economic benefits from use of the asset, the Group considers only the economic benefits that arise from the use of the asset, not those incidental to legal ownership or other potential benefits.

In determining whether the Group has the right to direct use of the asset, the Group considers whether it directs how and for what purpose the asset is used throughout the period of use. If there are no significant decisions to be made because they are pre-determined due to the nature of the asset, the Group considers whether it was involved in the design of the asset in a way that predetermines how and for what purpose the asset will be used throughout the period of use. If the contract or portion of a contract does not satisfy these criteria, the Group applies other applicable IFRSs rather than IFRS 16.

All leases are accounted for by recognising a right-of-use asset and a lease liability except for:

- leases of low-value assets; and
- leases with a term of twelve months or less.

The Group has elected to use the recognition exemptions listed above and thus does not apply the right-of-use asset and lease liability measurement requirements to these items. Leases of low-value assets and short-term leases are expensed on a straight-line basis over the life of the lease.

Lease liabilities are measured at the present value of the contractual payments due to the lessor over the lease term, with the discount rate determined by reference to the rate inherent in the lease unless (as is typically the case) this is not readily determinable, in which case the Group's incremental borrowing rate on commencement of the lease is used. Variable lease payments are only included in the measurement of the lease liability if they depend on an index or rate. In such cases, the initial measurement of the lease liability assumes the variable element will remain unchanged throughout the lease term. Other variable lease payments are expensed in the period to which they relate.

On initial recognition, the carrying value of the lease liability also includes:

- amounts expected to be payable under any residual value guarantee;
- the exercise price of any purchase option granted in favour of the Group if it is reasonably certain to exercise that option; and
- any penalties payable for terminating the lease, if the term of the lease has been estimated on the basis of the termination option being exercised.

Right-of-use assets are initially measured at the amount of the lease liability, reduced for any lease incentives received, and increased for:

- lease payments made at or before commencement of the lease;
- initial direct costs incurred; and
- the amount of any provision recognised where the Group is contractually required to dismantle, remove or restore the leased asset (typically leasehold dilapidations).

Subsequent to initial measurement lease liabilities increase as a result of interest charged at a constant rate on the balance outstanding and are reduced for lease payments made. Right-of-use assets are amortised on a straight-line basis over the remaining term of the lease or over the remaining economic life of the asset if, rarely, this is judged to be shorter than the lease term.

When the Group revises its estimate of the term of any lease (because, for example, it reassesses the probability of a lessee extension or termination option being exercised), it adjusts the carrying amount of the lease liability to reflect the payments to make over the revised term, which are discounted at the same discount rate that applied on lease commencement. The carrying value of lease liabilities is similarly revised when the variable element of future lease payments dependent on a rate or index is revised. In both cases an equivalent adjustment is made to the carrying value of the right-of-use asset, with the revised carrying amount being amortised over the remaining (revised) lease term.

Where a variable lease payment that is dependent on an index or rate is present in the lease, the lease liability and right-of-use asset is re-measured once the rate is known. Any variable lease payments that are not dependent on an index or rate are expensed in the period they are incurred.

When the Group renegotiates the contractual terms of a lease with the lessor, the accounting depends on the nature of the modification:

- if the renegotiation results in one or more additional assets being leased for an amount commensurate with the standalone price for the additional rights-of-use obtained, the modification is accounted for as a separate lease in accordance with the above policy;
- in all other cases where the renegotiation increases the scope of the lease (whether that is an extension to the lease term, or one or more additional assets being leased for an amount that is not commensurate with the standalone price for the additional rights-of-use obtained), the lease liability is remeasured using the discount rate applicable on the modification date, with the right-of-use asset being adjusted by the same amount; and
- if the renegotiation results in a decrease in the scope of the lease, both the carrying amount of the lease liability and right-of-use assets are reduced by the same proportion to reflect the partial or full termination of the lease with any difference recognised in profit or loss. The lease liability is then further adjusted to ensure its carrying amount reflects the amount of the renegotiated payments over the renegotiated term, with the modified lease payments discounted at the rate applicable on the modification date. The right-of-use asset is adjusted by the same amount.

For contracts that both convey a right to the Group to use an identified asset and require services to be provided to the Group by the lessor, the Group has elected to account for the entire contract as a lease, i.e. it does not allocate any amount of the contractual payments to, and account separately for, any services provided by the supplier as part of the contract.

Investments in subsidiaries

Investments in subsidiaries in the Company financial statements are carried at cost less any provision for losses arising on impairment.

Investments in joint ventures

The Group is a party to a joint arrangement when there is a contractual arrangement that confers joint control over the relevant activities of the arrangement to the Group and at least one other party. Joint control is assessed under the same principles as control over subsidiaries.

Joint ventures are initially recognised in the consolidated statement of financial position at cost. Subsequently joint ventures are accounted for using the equity method, where the Group's share of post-acquisition profits and losses and other comprehensive income is recognised in the consolidated statement of comprehensive income (except for losses in excess of the Group's investment in the joint venture unless there is an obligation to make good those losses).

Profits and losses arising on transactions between the Group and its joint ventures are recognised only to the extent of unrelated investors' interests in the joint venture. The Group's share in the joint venture's profits and losses resulting from these transactions is eliminated against the carrying value of the joint venture.

Any premium paid for a joint venture above the fair value of the Group's share of the identifiable assets, liabilities and contingent liabilities acquired is capitalised and included in the carrying amount of the joint venture. Where there is objective evidence that the investment in the joint venture has been impaired the carrying amount of the investment is tested for impairment in the same way as other non-financial assets.

Investment tax credits

Investment tax credits receivable are amounts recoverable from the Canadian federal and provincial government under the SRED incentive programme. These tax credits are not received in cash, they are netted off against the Group's current tax charge. The amounts that are claimed under the programme represent the amounts submitted by management based on research and development costs paid during the year and include a number of estimates and assumptions made by management in determining the eligible expenditures. Investment tax credits are recorded when there is reasonable assurance that the Group will realise the investment tax credits receivable and are netted against the related expenditure. Recorded investment tax credits are subject to review and approval by tax authorities and therefore amounts eventually netted off against the Group's current tax charge may be different from the amounts recorded.

2 Accounting policies continued

Inventories

The acquisition cost of inventories comprises all costs of purchase, costs of conversion and all other costs incurred in bringing the inventories to their present location and condition.

Inventories are stated at the lower of cost and net realisable value. Cost comprises direct materials and, where applicable, direct labour costs and those overheads that have been incurred in bringing the inventories to their present location and condition. Cost is calculated using the weighted average cost method. Net realisable value represents the estimated selling price less all estimated costs of completion and costs to be incurred in marketing, selling and distribution.

Short-term employee benefits

A liability is recognised for benefits accruing to employees in respect of wages and salaries, annual leave and sick leave in the period the related service is rendered at the undiscounted amount of the benefits expected to be paid in exchange for that service.

Cash and cash equivalents

Cash and cash equivalents include cash and liquid investments with a term to maturity of 90 days or less at the reporting date.

Financial instruments

Financial assets and financial liabilities are recognised in the Group's consolidated statement of financial position when the Group becomes a party to the contractual provisions of the instrument.

Financial assets and financial liabilities are initially measured at fair value. Except for financial assets and financial liabilities measured at fair value through profit or loss, transaction costs that are directly attributable to the acquisition or issuance of financial assets and financial liabilities are added to or deducted from the fair value of the financial assets or financial liabilities, as appropriate, upon initial recognition. Transaction costs directly attributable to the acquisition of financial assets or financial liabilities at fair value through profit or loss are recognised immediately in profit or loss.

Financial assets

All recognised financial assets are measured subsequently in their entirety at either amortised cost or fair value, depending on the classification of the financial assets. The classification and measurement of financial assets after initial recognition at fair value depends on the business model for managing the financial asset and the contractual terms of the cash flows. Financial assets are classified in one of the three categories:

a) Amortised cost

Financial assets that are debt instruments and are held within a business model whose objective is to collect the contractual cash flows, and that have contractual cash flows that are solely payments of principal and interest (SPPI) on the principal outstanding, are measured at amortised cost at each subsequent reporting period. The Group classifies accounts receivable and notes receivable as financial assets that are subsequently measured at amortised cost.

b) Fair value through other comprehensive income

The Group and Company do not have any financial assets classified as being at fair value through other comprehensive income.

c) Fair value through profit or loss

Financial assets that do not meet the criteria for being measured at amortised cost or fair value through other comprehensive income are measured subsequently at fair value through profit or loss. Trading financial instruments are mandatorily measured at fair value through profit or loss as they are held for trading purposes or are part of a business model with a pattern of short-term profit taking. Non-trading financial assets are also mandatorily measured at fair value through profit or loss if their contractual cash flow characteristics do not meet the SPPI test or if they are managed together with other financial instruments on a fair value basis. In addition, the Group may, at initial recognition, make an irrevocable election to designate a financial asset as fair value through profit or loss. A financial asset is designated as fair value through profit or loss when such classification eliminates or significantly reduces a measurement inconsistency that would otherwise arise from measuring the financial asset on a different basis. Gains and losses realised on disposition and unrealised gains and losses from changes in fair value of the financial assets are recognised in the consolidated statement of comprehensive income.

Impairment of financial assets

The Group recognises a loss allowance for expected credit losses (ECL) on accounts receivable that are measured at amortised cost. The Group applies the simplified approach for accounts receivable and recognises the lifetime ECL for these assets. The ECL on accounts receivable is 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 at the reporting date, including time value of money where appropriate.

For all other financial assets measured at amortised cost or fair value through other comprehensive income, the Group recognises lifetime ECL only when there has been a significant increase in credit risk since initial recognition. If the credit risk on such financial instruments has not increased significantly since initial recognition, the Group measures the loss allowance on those financial instruments at an amount equal to twelve months' ECL.

Lifetime ECL represents the ECL that will result from all possible default events over the expected life of a financial asset. In contrast, twelve-month ECL represents the portion of lifetime ECL that is expected to result from default events on a financial asset that are possible within twelve months after the reporting date.

In assessing whether the credit risk on a financial asset has increased significantly since initial recognition, the Group compares the risk of default occurring on the financial asset at the reporting date with the risk of default occurring at initial recognition. The Group considers both quantitative and qualitative factors that are supportable, including historical experience and forward-looking information that is available without undue cost or effort.

Irrespective of the above assessment, the Group presumes that the credit risk on a financial asset has increased significantly since initial recognition when contractual payments are more than 30 days past due, unless the Group has reasonable and supportable information that demonstrates otherwise. Despite the foregoing, the Group presumes that the credit risk on a financial asset has not increased significantly since initial recognition if the financial asset is determined to have low credit risk at the reporting date.

The Group regularly monitors the effectiveness of the criteria used to identify whether there has been a significant increase in credit risk and revises them as appropriate to ensure that the criteria are capable of identifying a significant increase in credit risk before the amount becomes past due.

Definition of default

For internal credit risk management purposes, the Group considers a financial asset not recoverable if the customer balance owing is 180 days past due and information obtained from the customer and other external factors indicate that the customer is unlikely to pay its creditors in full.

Credit-impaired financial assets

A financial asset is credit-impaired when one or more events that have a detrimental impact on the estimated future cash flows of that financial asset have occurred. Evidence that a financial asset is credit-impaired include observable data about the following events:

a) significant financial difficulty of the issuer or the counterparty;
b) a breach of contract, such as a default or past due event;
c) the lender(s) of the debtor, for economic or contractual reasons relating to the debtor's financial difficulty, having granted to the debtor a concession(s) that the lender(s) would not otherwise consider;
d) it is becoming probable that the debtor will enter bankruptcy or other financial reorganisation; and
e) the disappearance of an active market for that financial asset because of financial difficulties.

Write-off policy

The Group writes off and derecognises a financial asset when there is information indicating that the debtor is in severe financial difficulty and there is no realistic prospect of recovery.

Derecognition of financial assets

The Group derecognises a financial asset only when the contractual rights to the cash flows from the asset expire, or when it transfers the financial asset and substantially all the risks and rewards of ownership of the asset to another entity. If the Group neither transfers nor retains substantially all the risks and rewards of ownership and continues to control the transferred asset, the Group recognises its retained interest in the asset and an associated liability for amounts it may have to pay. If the Group retains substantially all the risks and rewards of ownership of a transferred financial asset, the Group continues to recognise the financial asset and also recognises a collateralised borrowing for the proceeds received.

On derecognition of a financial asset measured at amortised cost, the difference between the asset's carrying amount and the sum of the consideration received and receivable is recognised in profit or loss. In addition, on derecognition of an investment in a debt instrument classified at fair value through other comprehensive income, the cumulative gain or loss previously accumulated in the investments revaluation reserve is reclassified to profit or loss. In contrast, on derecognition of an investment in an equity instrument which the Group has designated on initial recognition to measure at fair value through other comprehensive income, the cumulative gain or loss previously accumulated in the investments revaluation reserve is not reclassified to profit or loss, but is transferred to retained earnings.

2 Accounting policies continued

Financial instruments continued

Financial liabilities

All financial liabilities are measured subsequently at amortised cost using the effective interest method or at fair value through profit or loss.

Financial liabilities are classified as at fair value through profit or loss when the financial liability is:

a) contingent consideration of an acquirer in a business combination;
b) held for trading; or
c) designated as at fair value through profit or loss.

A financial liability is classified as held for trading if it has been acquired principally for the purpose of repurchasing it in the near term or on initial recognition it is part of a portfolio of identified financial instruments that the Group manages together and has a recent actual pattern of short-term profit-taking, or it is a derivative financial liability.

A financial liability other than a financial liability held for trading or contingent consideration of an acquirer in a business combination may be designated as at fair value through profit or loss upon initial recognition if such designation eliminates or significantly reduces a measurement or recognition inconsistency that would otherwise arise or the financial liability forms part of a group of financial assets or financial liabilities or both, which is managed and its performance is evaluated on a fair value basis, in accordance with the Group's documented risk management or investment strategy, and information about the grouping is provided internally on that basis.

Financial liabilities classified or designated at fair value through profit or loss are measured at fair value, with any gains or losses arising on changes in fair value recognised in profit or loss. However, for financial liabilities that are designated as fair value through profit or loss, the amount of change in the fair value of the financial liability that is attributable to changes in the credit risk of the issuer is recognised in other comprehensive loss, unless the recognition of the effects of changes in the liability's credit risk in other comprehensive loss would create or enlarge an accounting mismatch in profit or loss. The remaining amount of change in the fair value of a liability is recognised in profit or loss. Changes in fair value attributable to a financial liability's credit risk that are recognised in other comprehensive loss are not subsequently reclassified to profit or loss; instead, they are transferred to retained earnings upon derecognition of the financial liability.

The Group classifies accounts payable, accrued liabilities and lease liabilities at amortised cost.

Derecognition of financial liabilities

The Group derecognises financial liabilities when, and only when, the Group's obligations are discharged, cancelled or have expired. The difference between the carrying amount of the financial liability derecognised and the consideration paid and payable is recognised in profit or loss.

Share capital

Ordinary shares are classified as equity. Equity instruments are measured at the fair value of the cash or other resources received or receivable, net of the direct costs of issuing the equity instruments. If payment is deferred and the time value of money is material, the initial measurement is on a present value basis.

Stabilisation programme

In the prior year, as part of the Underwriting Agreement for the IPO transaction, the Company agreed to an over-allotment and stock stabilisation programme with the founder shareholders and the IPO syndicate banks. The stabilisation programme was put into effect and given the aftermarket performance of the shares immediately post-IPO, resulted in proceeds to the Company of US$22.2m (£15.7m). As these proceeds were not part of the normal operation of the business and related to the IPO transaction, they were posted to the share premium account to set against IPO issuance costs.

3 Significant accounting estimates and judgements

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

The estimates and underlying assumptions are reviewed on an ongoing basis. Revisions to accounting estimates are recognised in the period in which the estimate is revised if the revision affects only that period, or in the period of the revision and future periods if the revision affects both current and future periods.

Critical judgements in applying the Group's accounting policies

Revenue recognition

Management exercises judgement in determining the separate performance obligations present in contracts with customers. In FY 2022, our scope of supply has extended from hard IP into soft IP and custom silicon, where performance obligations and revenue recognition treatment are different. As described in note 2, for hard IP of the type provided by Alphawave prior to the acquisitions of Precise-ITC and OpenFive, the Group considers the multiple deliveries of IP views of a single IP product to be part of a single performance obligation, as each IP view is highly dependent on or interrelated with one or more of the other IP views, as each successive IP view is based on the prior views of that IP. As such, customers are unable to benefit from IP views on their own or together with other readily available resources. For soft IP and IP products acquired through the acquisitions of Precise-ITC and the OpenFive business, the Group considers the initial IP delivery to be a separate performance obligation, with subsequent IP deliveries and customisation NRE forming a single further performance obligation.

Custom silicon developments are typically complex and highly customised with detailed engineering schedules and deliverables. A custom silicon project may include internal engineering services, Group 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 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, 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. Customer 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.

As described in note 2, hard IP products are delivered in various stages, referred to as IP views. In FY 2021, management exercised its judgement as to what percentage of the contract price allocated to the IP product should be recognised as revenue at each IP view delivery. For FY 2022, in respect of hard IP products of the type provided by Alphawave prior to the acquisitions of Precise-ITC and OpenFive, management now recognises revenue based purely on percentage of completion. This approach more accurately reflects the work done and requires management to exercise its judgement in estimating the total number of hours required for each project both at contract inception and periodically throughout the life of the project.

Delivery of Preliminary IP views may occur very shortly after a licence agreement is signed by a customer and hence significant research and development or engineering hours may not have been expended from contract signing up to that point. There are hours incurred prior to the signing of contracts that relate to the fulfilment of the performance obligations that are subsequently agreed to in such contracts. As the maturity of our hard IP improves, the number of hours expended prior to contract signature is expected to reduce. Judgement is made with respect to the pre-contract hours that are excluded or included in the calculation of the revenue to be recognised such that any included hours directly relate to the fulfilment of any contractual performance obligations. Such pre-contract hours are taken into account in our calculation of percentage of completion.

Systems have been implemented to more accurately measure the hours expended prior to contract signature and, from FY 2023 onwards, management will no longer be required to exercise judgement in respect of these pre-contract hours.

At Final IP view delivery (the last IP view delivered to the customer ahead of test chip manufacture), an amount of revenue was previously held back for any post-delivery work that may have been required to ensure the customer 'taped out' silicon met the specifications detailed in the contract. Any post-Final IP view delivery work related to silicon 'Bring up' and 'Integration' is covered by the support contract and is a separate performance obligation. The percentage held back was formerly fixed based on the type and complexity of the IP provided. However, based on a track record of completed projects, accumulated data has established that significant hours are not required post-Final IP view delivery. Therefore, we use management judgement to assess each project on a case-by-case basis to assess whether further engineering hours are likely to be required post-delivery of Final IP views. The amount of revenue held back on such contracts is typically a small proportion of the overall contract consideration.

Both the estimate of total contract hours at contract inception and thereafter the hold back of revenue at Final IP view delivery require significant judgement from management. Such judgement is based on deep knowledge and understanding of the development effort required in delivering IP products to customers and the potential for any further work required to ensure successful silicon production by customers. This judgement may not be representative of the work to be completed in all cases. As the Group completes more IP deliveries to customers, it will continue to establish a broader data set on which to base its judgements.

3 Significant accounting estimates and judgements continued

Critical judgements in applying the Group's accounting policies continued

Revenue recognition continued

In respect of soft IP products originating from our acquisition of Precise-ITC and IP products acquired through our acquisition of the OpenFive business, as described in note 2, a proportion of revenue is recognised at a point in time when the initial delivery of IP is made to the customer, with the remaining revenues recognised at points in time when successive deliveries of customised IP are made. The proportion of revenue recognised is based on management's judgement of the allocation of the contract price attributable to each delivery. A distinction is made between whether the IP requires significant or non-significant customisation. For Precise-ITC IP requiring non-significant customisation, 80% of the transaction price after deduction of the value of any separate performance obligation in respect of support, is attributed to the initial IP delivery.

The remaining 20% is attributed to customisation work and split equally between two further IP deliveries, being updated and final IP views. For IP requiring significant customisation, 30% is attributed to the initial IP delivery. The remaining 70% is attributed to customisation, which is split between three further IP deliveries, with the percentage of revenue recognised reflecting the functional coverage offered at each IP delivery. For IP products acquired through our acquisition of the OpenFive business, the initial IP delivery is typically based on a separate contract with the value based on a list price of the IP, with any customisation or integration work covered in a separate agreement.

Management judgement is required in determining the percentage recognition at the initial and subsequent IP deliveries and this may not be representative of the work to be completed in all cases.

If a contract contains multiple IP products, the deliverables may be considered part of a single performance obligation, as customers are unable to benefit from the IP products on their own or together with other readily available resources, due to the bespoke nature of the configuration that the Group performs on the IP products as part of the licence arrangements.

In respect of custom silicon, as detailed above, the development work represents a single performance obligation. Management exercises its judgement in estimating the total costs required for each project, which includes not only the internal engineering costs (based on estimated hours and blended costs per hour), but third-party costs required to be incurred.

Revenue under the subscription licence agreement with WiseWave is recognised at the point in time at which control of the goods is transferred to WiseWave. The Group considers control to have transferred to WiseWave when each IP product and updates to those IP products are uploaded to the library that they have access to under the agreement. At the point of upload of IP products and updates to IP products to the library, WiseWave has the ability to direct the use of, and obtain substantially all of the remaining benefits from, those IP products and updates to IP products, by utilising the products in their semiconductor designs from which they can then generate cash inflows.

As outlined in our IPO Prospectus, we assigned the VeriSilicon reseller arrangement to WiseWave in order to consolidate the Group's activities in China under a single entity and this was implemented in Q4 2021. WiseWave are entitled to retain payments from that contract totalling US$13.6m reflecting work that they will be expected to perform in future periods to fulfil that contract. In FY 2021, as WiseWave were building their technical capabilities and were not yet able to fully perform this work, this sum was accounted for as a reduction in the value (i.e. a discount) of the subscription licence agreement with WiseWave, subject to future adjustment as and when WiseWave began performance. In FY 2022, WiseWave have continued to build out their technical capabilities and have begun to provide support to Alphawave. As WiseWave are now performing the work to fulfil the contract, the discount is being recognised in proportion to the amounts WiseWave are entitled to retain and the number of IPs delivered. In FY 2022, the Group recognised US$3.4m of the US$13.6m discount as revenue.

As outlined in our IPO Prospectus, these arrangements were contemplated at the time of entering into the VeriSilicon reseller contract and establishing WiseWave and have been taken into account in the disclosed aggregate booking of US$147.8m for these transactions. As a result of the assignment of the VeriSilicon reseller arrangement, there is no significant change anticipated to the overall net financial impact on the Group.

Research and development costs

Judgement is exercised in determining whether costs incurred should be capitalised in line with IAS 38. The judgement includes whether it is technically feasible to complete the relevant assets on which costs are incurred so that they will be available for use or sale. Judgement is also required to determine the useful economic life of any capitalised development costs.

In respect of standard product development, Alphawave operates a New Product Development (NPD) process where engineering decisions are reviewed in respect of:

- commercial prospects, for example target market size, target customers, revenue potential;
- expected costs of planned engineering activity, resources required and opportunity cost of utilising those resources; and
- planned engineering activity analysed by defined project phases.

Alphawave's NPD process identifies 16 project phases and is applied to new products, both in silicon and IP form.

The stage at which technical feasibility of completing the asset can be demonstrated can vary substantially depending on the nature of the technology and is assessed on a project-by-project basis, with reference to the project phases defined in the NPD process and is hence subject to judgement.

The assessment of whether development expenditure should be capitalised requires assumptions relating to our ability to ensure we have adequate resources available to complete the final product and our assessment of the scale and maturity of the addressable market and forecast customer demand.

Joint ventures

As at year end, the Group owned 42.5% of WiseWave, a newly formed 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$18.5m loss for FY 2022.

Judgement is used in determining the extent of the control the Group has over WiseWave. The Group is satisfied WiseWave should be treated as a joint venture under IFRS 11 as opposed to being treated as an associate. For all joint arrangements structured in separate vehicles the Group must assess the substance of the joint arrangement in determining whether it is classified as a joint venture or joint operation.

This assessment requires the Group to consider whether it has rights to the joint arrangement's net assets (in which case it is classified as a joint venture), or rights to and obligations for specific assets, liabilities, expenses and revenues (in which case it is classified as a joint operation). Factors the Group must consider include:

- structure;
- legal form;
- contractual agreement; and
- other facts and circumstances.

Upon consideration of these factors, the Group has determined that all of its joint arrangements structured through separate vehicles give it rights to the net assets and are therefore classified as joint ventures.

Joint venture revenue

The Group's proportion of revenue recognised from sales to WiseWave under the subscription licence agreement has been eliminated in the 'Loss from joint venture' line in the consolidated statement of comprehensive income to the extent that the revenue is not realised based on WiseWave's utility and in line with IAS 28. The Group exercised judgement in eliminating the revenue in this way. Had the Group eliminated our share of the gains from sales to the joint venture against the revenue line, our revenues would have reduced by US$4.8m to US$180.6m.

Where an investor enters into a downstream transaction with an equity-accounted investee for which its share of the gain arising from the transaction exceeds its interest in the investee, an accounting policy choice is made in respect of how that excess is treated in the investor's accounts. In 2022, our cumulative share of WiseWave's loss and the elimination of gains from sales made to WiseWave exceeded the value of our investment in them.

We have exercised our judgement in choosing not to eliminate the full gains from sales to WiseWave and not to recognise a deferred income balance for the excess of the elimination over the carrying value of the investment. In our opinion, this more appropriately reflects the current nature of the relationship with WiseWave and is consistent with our intention to exit the joint venture in the medium term.

Had we elected to eliminate the share of the gain in full, we would have recognised a deferred income balance of US$2.3m in the consolidated statement of financial position.

3 Significant accounting estimates and judgements continued

Critical judgements in applying the Group's accounting policies continued

Impairment of financial assets

As described in note 2, the Group recognises a loss allowance for expected credit losses (ECL) on accounts receivable and applies the simplified approach, recognising the lifetime ECL for these assets. The Group uses a provision matrix based on the Group's historical credit loss experience to inform the level of ECL allowance and exercises significant judgement in assessing the factors that are specific to the customers and the general current and forecasted economic conditions that are used to adjust the ECL.

As at 31 December 2022, the Group's ECL allowance for accounts receivable was US$2.2m (31 December 2021: not material). This level of ECL allowance reflects the Group's historical credit loss experience and its assessment of each of the customers making up its accounts receivable balance at each reporting date and the prevailing and predicted macroeconomic conditions that may impact on those customers' ability to pay their outstanding invoices.

As at 31 December 2022, the Group had one customer with accounts receivable that were significantly in excess of 30 days past due, totalling US$4.2m including the associated accrued revenue balance, against which an ECL allowance of US$0.5m was recognised. Management consider this component of the ECL allowance to be a major source of estimation uncertainty at the end of the reporting period, that has a significant risk of resulting in a material adjustment to the carrying amounts of assets and liabilities within the next financial year.

In concluding that the allowance recognised of US0.5m was appropriate, the Group has considered carefully the recoverability of this balance, taking into account specific details of the customer's current and near-term trading prospects, their access to additional funding and past trading activity with the Group. Had the Group provided the full amounts of these accounts receivable and accrued revenue in FY 2022, accounts receivable and accrued revenue would have been US$3.7m lower and operating profit would have been US$3.7m lower.

Assets acquired and liabilities assumed in business combinations

In accounting for business combinations, judgement is required in determining whether an intangible asset is identifiable and should be recorded separately from goodwill. Additionally, estimating the acquisition-date fair values of the identifiable assets acquired and liabilities assumed involves considerable judgement and the valuation techniques used incorporate several key assumptions, including: forecasts of revenues attributable solely to the existing assets; forecasts of revenue/customer attrition; the application of an appropriate operating margin to forecast sales; the application of an appropriate tax charge to estimate post-tax cash flows; the application of post-tax contributory asset charges to reflect the return required on other tangible and intangible assets that contribute to the generation of the forecast cash flows; and the application of an appropriate discount rate to state future cash flows at their present value. The necessary measurements are based on information available at the acquisition date and are based on expectations as well as assumptions that have been deemed reasonable by management. These judgements, estimates and assumptions could materially affect our financial statements if other judgements, estimates and assumptions were made.

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.

The Group's tangible and identifiable intangible assets principally comprise acquired IP and technology assets that are used interchangeably by the Group's research and development team in the delivery of IP, custom silicon and silicon products to end customers. For example, we use the IP and technology assets acquired with the OpenFive business in the development not only of custom silicon designs but also of IP products and standard products. Given this integrated approach to IP development, the Group does not hold any individual assets or groups of assets that generate cash inflows that are largely independent of the cash inflows from other assets or groups of assets. In management's judgement, therefore, the Group consists of a single CGU. Accordingly, the Group's tangible and identifiable intangible assets are tested for impairment at Group level based on estimates of the Group's future cash flows.

Key sources of estimation uncertainty in the consolidated financial statements

The key assumptions concerning the future, and other key sources of estimation uncertainty at the consolidated statement of financial position date, that have a significant risk of causing a material adjustment to the carrying amounts of assets and liabilities within the next financial year, are discussed below.

Revenue recognition

Revenue recognition for hard IP products licensed under our standard pay-per-use contracts and custom silicon development work is based upon cost to completion using the input method, as this best reflects the transfer of control of the licensed IP products or the custom silicon design to the customer, with percentage of completion based on management judgements and estimates approximating the work required to meet contract deliverables. These judgements and estimates vary depending on the contract type, the maturity of the IP being licensed, the complexity of the silicon being developed, customer requirements and involvement, customer specifications, whether the contract deliverables are in their early or later stages and whether the IP has already been silicon-proven. If different estimates of the work required to meet contract deliverables had been made, our revenue may have been different from that shown in the consolidated statement of comprehensive income and the contract assets and contract liabilities balances shown in the consolidated statement of financial position may also have been different. Refer to note 5 for further information regarding the sensitivity of revenue recognition to the estimation uncertainty of work required to meet contract deliverables.

For the subscription licence agreement with WiseWave, the Group uses point-in-time revenue recognition. The agreement includes multiple performance obligations for delivery of distinct IPs and periodic updates to those IPs. Revenue is recognised based on delivery of each distinct IP as a proportion of management's estimate of the total number of IPs to be delivered during the five-year term of the agreement. If different assumptions were made about the total number of IPs to be delivered during the contract term and the amount of contract price allocated to each IP, the revenue recorded against this contract in the consolidated statement of comprehensive income and the contract assets and contract liabilities balances shown in the consolidated statement of financial position may be different from that shown.

Fair value of assets acquired in business combinations

In calculating the value of intangible assets, we have considered the requirements of the standards and the highest and best use of the assets. The calculations include estimation uncertainty in respect of elements of the fair value estimates, notably forecasting revenues and margins for intellectual property (IP) and customer relationships.

For the IP recognised in respect of the OpenFive business combination, SoC IP revenues have been forecast to grow at a compound annual growth rate (CAGR) of 43.6% between 2022 and 2026 based on past performance. If total revenue growth of 29.0% per annum (based on a 2022 to 2026 CAGR) had been used instead, the SoC IP intangible value would be US$9.2m lower, consequently leading to an increase in goodwill and a decrease in deferred tax liability.

In respect of customer relationships recognised in the OpenFive business combination, we forecast an improvement in EBIT margins for NRE and product revenue based on operational changes between 2022 and 2025. If these expected margin improvements were not achieved, then the value of the customer relationship recognised would be approximately US$5.8m, which is US$19.9m lower than recognised in the consolidated statement of financial position, consequently leading to an increase in goodwill and a decrease in deferred tax liability.

In determining the value of the IP in-progress recognised in respect of the Banias business combination, we have considered the revenue expected to be achieved from this asset once complete. However, as this is a new optical DSP product offered by the Group that is not yet complete, there is uncertainty in the revenue that is expected to be achieved. Had we limited the expected sales and margins to the total of the non-binding, multi-year purchasing framework with a leading North American hyperscaler, which we consider to be an unlikely scenario, the valuation of the IP in-progress would be reduced to US$0.6m, consequently leading to an increase in goodwill and a decrease in deferred tax liability. In performing this sensitivity, we have reduced the discount rate to reflect the reduced forecasting uncertainty of the scenario compared to the base case.

4 Alternative performance measures (APMs)

The Group uses certain financial measures that are not defined or recognised under IFRS. The Directors believe that these non-GAAP measures supplement GAAP measures to help in providing a further understanding of the results of the Group and are used as key performance indicators within the business to aid in evaluating its current business performance. The measures can also aid in comparability with other companies who use similar metrics. However, as the measures are not defined by IFRS, other companies may calculate them differently or may use such measures for different purposes to the Group.

Bookings

The Group monitors and discloses bookings and backlog as key performance indicators of future revenues. Bookings are a non-IFRS measure and represent legally binding and largely non-cancellable commitments by customers to license our technology. Our bookings comprise licence fees, non-recurring engineering, support, orders for silicon products and, in some instances, our estimate of potential future royalties.

Our royalties are estimated based on contractually committed royalty prepayments or, in limited instances, on sensitised volume estimates provided by customers. Our bookings for FY 2022, including royalties, totalled US$228.1m (FY 2021: US$244.7m), and excluding royalties, US$213.0m (FY 2021: US$220.8m).

Backlog represents bookings over the life of the Group that have not yet been recognised as revenues and which we expect to be recognised in future periods. Backlog as at the end of 2022 is calculated based on our backlog as at the end of 2021, plus new bookings, plus backlog acquired as part of the acquisitions of OpenFive and Precise-ITC Inc., less revenues recognised during the period.

	Year ended 31 December 2022 US$m	Year ended 31 December 2021 US$m
Backlog (end of the prior year)	168.6	37.2
Add: New bookings excluding IP royalties	213.0	220.8
Add: Backlog acquired with OpenFive and Precise-ITC	168.3	—
Less: Revenues recognised in the period[1]	(185.4)	(89.4)
Backlog (end of the year)	**364.5**	168.6

1. 2021 is different from reported revenue due to foreign exchange differences.

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

EBITDA provides a supplemental measure of earnings that facilitates review of operating performance on a period-to-period basis by excluding items that are not indicative of the Group's underlying operating performance and is a key profit measure used by the Board to assess the underlying financial performance of the Group. EBITDA is stated before the following items and for the following reasons:

- interest is excluded from the calculation of EBITDA because the expense and income bears no relation to the Group's underlying operational performance;
- charges for the depreciation of property and equipment, acquired intangibles and right-of-use assets are excluded from the calculation of EBITDA, as removing these non-monetary items allows management to better project the Group's long-term profitability; and
- tax is excluded from the calculation of EBITDA because the expense bears no relation to the Group's underlying operational performance.

Operating profit to EBITDA reconciliation

	Year ended 31 December 2022 US$'000	Year ended 31 December 2021 US$'000
Operating profit	**37,627**	36,035
Add backs:		
Depreciation of tangible fixed assets and right-of-use assets	**5,508**	3,127
Amortisation	**6,159**	—
EBITDA	**49,294**	39,162

Two further measures are adjusted EBITDA and adjusted profit after tax, defined in the tables below. These further allow for a more accurate assessment of underlying business performance by making exclusions of items which do not form part of the Group's normal underlying operations.

EBITDA to adjusted EBITDA reconciliation

	Year ended 31 December 2022 US$'000	Year ended 31 December 2021 US$'000
EBITDA	**49,294**	39,162
Add backs:		
Non-recurring Initial Public Offering costs	**—**	9,961
M&A-related costs	**16,973**	533
Share-based payment	**15,695**	6,143
Exchange gain	**(36,838)**	(4,023)
Retention payments	**1,703**	—
Adjusted EBITDA	**46,827**	51,776

M&A-related costs include one-off legal and professional costs incurred as a result of the Group's execution of agreements for the formation and commercial arrangements relating to the Group's joint venture, WiseWave, as well as professional fees and one-time employee retention bonuses related to the acquisitions of Precise-ITC, OpenFive and Banias. We believe that excluding the effect of share-based payments from adjusted EBITDA assists management and investors in making period-to-period comparisons in the Group's operating performance because the amount of such expenses in any specific period may not directly correlate to the underlying performance of our business operations.

Retention payments represent cash payments in lieu of share-based remuneration committed as part of the acquisition of Banias.

Additionally, these expenses can vary significantly between periods as a result of the timing of grants of new share-based awards, including grants in connection with acquisitions. The exchange gain in 2022 has been removed from EBITDA as it relates to an unrealised gain relating to cash held and therefore does not form part of the Company's operating performance.

We exclude the impact of amortisation of acquired intangibles in connection with business combinations from our adjusted profit after tax, as we do not consider them to be representative of the underlying operational performance of the business.

4 Alternative performance measures (APMs) continued

Profit for the year to adjusted profit after tax reconciliation

	Year ended 31 December 2022 US$'000	Year ended 31 December 2021 US$'000
(Loss)/profit for the year	(1,086)	9,431
Add backs:		
Non-recurring Initial Public Offering costs	–	9,961
M&A-related costs	16,973	533
Share-based payment	15,695	6,143
Exchange gain	(36,838)	(4,023)
Retention payments	1,703	–
Amortisation of acquired intangibles	5,519	–
Tax effect of above adjustments	4,708	–
Adjusted profit for the year	6,674	22,045

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

	Year ended 31 December 2022	Year ended 31 December 2021
Adjusted basic earnings per share (US$ cents)	0.98	3.52
Adjusted diluted earnings per share (US$ cents)	0.98	3.14

Adjusted and diluted basic earnings per share have been calculated by taking the adjusted profit for the year and dividing it by the basic or diluted, as appropriate, weighted average number of common shares outstanding as calculated in note 13. Adjusted basic earnings per share and adjusted diluted earnings per share are the same because the share options and RSUs are anti-dilutive. Therefore, they have been excluded from the calculation of diluted weighted average number of ordinary shares.

5 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 2022 US$'000	Year ended 31 December 2021 US$'000
Revenue by type:		
IP and NRE	76,123	51,224
IP and NRE – Reseller	3,270	8,861
IP and NRE– JV	58,207	29,846
Silicon and royalties	47,806	–
	185,406	89,931

'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 5-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$31.1m (2021: US$27.7m) 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 2022 US$'000	Year ended 31 December 2021 US$'000
Revenue by region:		
North America	51,361	37,642
China	104,755	43,063
APAC (ex-China)	16,980	9,226
EMEA	12,310	—
	185,406	89,931

Revenues from customers which comprise greater than 10% of the Group's total revenues are as follows:

	Year ended 31 December 2022 US$'000	Year ended 31 December 2021 US$'000
Customer – WiseWave	58,207	29,846

US$90.7m (49% of total revenues) (2021: US$53.4m, 59%) represent revenues recognised over time. These revenues require management judgements and estimates of project hours or costs that are used in percentage of completion calculations. These revenues relate to work done during the design phase of a customer project and include (with the exception of a limited amount of revenue relating to our Soft IP) IP product licensing fees, together with related support and NRE, as well as custom silicon NRE fees. We have applied a sensitivity to revenues recognised over time in 2022 which are subject to estimates. If our estimates of total hours or total costs had been 10% higher, these revenues would be US$83.6m. If our estimates of total hours or total costs had been 10% lower, these revenues would be US$96.3m.

US$94.7m (51% of total revenues) (2021: US$36.5m, 41%) 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 5 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 3 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.

5 Revenue continued

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. The table below illustrates the sensitivity of revenue recognition and the associated balance sheet balances to a change in the estimated total number of IP products to be delivered and assumes a 10% increase and a 10% decrease in the total number of uploads, but the same number of uploads made during 2022.

Year ended 31 December 2022	As reported US$'000	+10% US$'000	-10% US$'000
Revenue stream			
WiseWave SLA revenue	**31,091**	**27,982**	**34,200**
WiseWave SLA accrued revenue	**16,794**	**15,115**	**18,473**

Year ended 31 December 2021	As reported US$'000	+10% US$'000	-10% US$'000
Revenue stream			
WiseWave SLA revenue	27,700	25,229	30,714
WiseWave SLA accrued revenue	3,700	1,229	6,714

Accrued and deferred revenue movements

Below is a reconciliation of the movement in accrued revenue during the period:

	Year ended 31 December 2022 US$'000	Year ended 31 December 2021 US$'000
At 1 January	**31,719**	10,328
On acquisition of subsidiaries	**2,714**	—
Revenue accrued in the period	**56,231**	30,482
Accrued revenue invoiced in the period	**(31,983)**	(8,959)
Foreign exchange difference	**(147)**	(132)
At 31 December	**58,534**	31,719

Below is a reconciliation of the movement in deferred revenue during the period:

	Year ended 31 December 2022 US$'000	Year ended 31 December 2021 US$'000
At 1 January 2022	**12,661**	7,381
On acquisition of subsidiaries	**41,361**	—
Revenue recognised in the period	**(38,959)**	(6,450)
Revenue deferred in the period	**76,205**	11,554
Cumulative catch-up adjustments	**—**	8
Foreign exchange difference	**465**	168
At 31 December	**91,733**	12,661

The cumulative catch-up adjustment in 2021 represents a change in estimate of the total number of hours expected to complete a project.

The deferred revenue balance is all expected to be satisfied within 12 months of the consolidated statement of financial position date.

The flexible spending account has decreased to US$5.2m as at 31 December 2022 from US$6.8m as at 31 December 2021. 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 2022 US$'000	Year ended 31 December 2021 US$'000
Capitalised contract costs	874	609

The costs to obtain contracts from customers include commissions. Amortisation of US$2.9m (2021: US$3.0m) and impairment of US$nil (2021: US$nil) was charged to the consolidated statement of comprehensive income in the period.

6 Research and development/engineering

The Group incurred research and development costs that have been expensed in the consolidated statement of comprehensive income. The amounts are expensed through research and development/engineering and are as follows:

	Year ended 31 December 2022 US$'000	Year ended 31 December 2021 US$'000
Research and development/engineering	69,358	29,444

7 Employee benefit costs

The aggregate employee benefit expenses were as follows:

	Group Year ended 31 December 2022 US$'000	Group Year ended 31 December 2021 US$'000	Company Year ended 31 December 2022 US$'000	Company Period ended 31 December 2021 US$'000
Wages, salaries and benefits	45,301	19,216	1,444	328
Defined contribution pension costs	1,300	253	27	10
Social security costs	3,959	1,447	411	41
Share-based payment expense	15,695	6,143	235	342
Investment tax credit	(5,198)	(3,039)	—	—
Government grants	—	(56)	—	—
Total	61,057	23,964	2,117	721

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

	Group 2022	Group 2021	Company 2022	Company 2021
Research and development/engineering	321	110	—	—
General and administration	29	10	7	3
Sales and marketing	11	4	—	—
Total	361	124	7	3

7 Employee benefit costs continued

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

	Group 2022	Group 2021	Company 2022	Company 2021
Research and development/engineering	621	134	–	–
General and administration	57	15	9	5
Sales and marketing	17	5	–	–
Total	695	154	9	5

FY 2022 and FY 2021 headcount numbers throughout the report exclude interns. In FY 2021 there were five interns who were previously reported as part of the R&D headcount.

8 Directors' and key management personnel remuneration

Key management personnel are those persons having authority and responsibility for planning, directing and controlling the activities of the Group, including the Directors of the Company, the co-founders and the Chief Financial Officer of the Company.

	Year ended 31 December 2022 US$'000	Year ended 31 December 2021 US$'000
Remuneration (including benefits in kind)	5,962	2,235
Defined contribution pension costs	59	4
Share-based payment expense	–	252
	6,021	2,491

One Director exercised options during the previous period. Details are as follows:

	Year ended 31 December 2022	Year ended 31 December 2021
Number of options, in thousands, exercised by Directors and key management	–	4,000
Gains made on exercise of options by Directors and key management US$'000	–	5,636

Details of the highest paid Director's remuneration is as follows:

	Year ended 31 December 2022 US$'000	Year ended 31 December 2021 US$'000
Remuneration (including benefits in kind)	762	740
Defined contribution pension costs	45	4
	807	744
Number of options, in thousands, exercised by Director	–	4,000

The number of options at 31 December 2021 has been adjusted for the 20 for 1 share split that happened immediately prior to the Initial Public Offering in May 2021.

Shortly following the Company's incorporation, 50,000 preference shares of nominal value of £1 each were issued to John Lofton Holt, a Company Director. The preference shares were issued as fully paid up in consideration for an undertaking from Mr Holt to pay to the Company a sum of £50,000. The preference shares were redeemed by the Company on 6 December 2021 and the undertaking to pay was thereby cancelled.

A loan of CDN$1,280,000 was made to Daniel Aharoni, a Director of the Company for the exercise of share options in Alphawave IP Inc prior to the IPO date. The loan was repaid on the sale of shares in the Company at the IPO and following the exchange of Alphawave IP Inc shares into Company shares prior to the IPO date. The loan was interest free.

9 Auditor's remuneration

The Group paid 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 2022 US$'000	Year ended 31 December 2021 US$'000
Audit of the financial statements	1,713	725
Audit-related assurance services	124	155
Other assurance services	—	1,135
	1,837	2,015

In the prior period, other assurance services relate to financial services provided for our admission to list on the London Stock Exchange.

10 Finance income and expense

	Year ended 31 December 2022 US$'000	Year ended 31 December 2021 US$'000
Finance income		
Interest income from customer	—	202
Interest income from contracts with customers containing significant financing components	235	—
Bank interest	1,449	110
	1,684	312
Finance expense		
Bank charges	—	(26)
Lease interest	(391)	(294)
Term loan interest	(3,134)	—
NPV interest	(27)	—
IIA interest	(36)	—
	(3,588)	(320)
Net finance expense	(1,904)	(8)

11 Non-recurring Initial Public Offering costs

In accordance with the Group's policy for non-recurring items, the following charges were included in this category for the prior period:

One-off costs relating to Project Aurora, the project name for the Group's Initial Public Offering on the London Stock Exchange, that were not able to be offset against share premium under IAS 32 totalled US$nil (2021: US$10.0m). Over half of these total fees related to LSE admission fees and legal costs associated with the Initial Public Offering. Per IAS 32, costs that relate to the stock market listing or are otherwise not incremental and not directly attributable to issuing new shares should be recorded in the consolidated statement of comprehensive income.

12 Tax expense

	Year ended 31 December 2022 US$'000	Year ended 31 December 2021 US$'000
Current taxation		
UK corporation tax	5,792	257
Adjustments to prior periods	(516)	125
Overseas tax	13,330	13,349
Total current tax	18,606	13,731
Deferred tax		
Origination and reversal of timing differences	(278)	(74)
Total deferred tax	(278)	(74)
Taxation on profit	18,328	13,657

The reasons for the difference between the actual tax charge for the year and the standard rate of corporation tax applied to profits for the year are as follows:

	Year ended 31 December 2022 US$'000	Year ended 31 December 2021 US$'000
Profit before tax	17,242	23,088
Profit before tax at the UK corporation tax rate of 19% (2021: 19%)	3,275	4,387
Effects of:		
Share-based compensation	3,141	1,036
Expenses not deductible for tax purposes	1,964	1,902
Research and development tax credits and incentives	—	72
(Over)/under accrual of prior year provision	(516)	125
Different tax rates applied in overseas jurisdictions	3,469	3,677
Share of joint venture's loss	3,511	2,458
Change in benefit of tax assets not recognised	3,281	—
Other tax items	203	—
Total tax charge for year	18,328	13,657

Changes in tax rates and factors affecting the future tax charge

An increase in the future main UK corporation tax rate to 25% from 1 April 2023, from the previously enacted 19%, was 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 2022 in relation to Canadian or US tax rates which will affect the Group.

13 Earnings per share

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

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

(US$ thousands except number of shares)	Year ended 31 December 2022	Year ended 31 December 2021
Numerator:		
(Loss)/profit for the year	(1,086)	9,431
Denominator:		
In issue at 1 January	664,965,934	27,927,252
Effect of 20 for 1 share exchange	–	558,545,040
Effect of pre-IPO option conversion	–	3,986,807
Effect of primary share issue at IPO	–	54,776,719
Effect of exercise of options at IPO	–	8,138,237
Effect of share issue post IPO	14,883,503	137,957
Weighted average number of common shares outstanding for basic earnings per share	679,849,437	625,584,760
Adjustment for dilutive share options and RSUs	–	76,905,071
Weighted average number of common shares outstanding for diluted earnings per share	679,849,437	702,489,831
Basic (loss)/earnings per share (US$ cents)	(0.16)	1.51
Diluted (loss)/earnings per share (US$ cents)	(0.16)	1.34

Adjusted basic loss per share in 2022 and adjusted diluted loss per share in 2022 are the same because the share options and RSUs are anti-dilutive. Therefore, they have been excluded from the calculation of diluted weighted average number of ordinary shares.

14 Property and equipment

Group	Computer equipment US$'000	Furniture and fixtures US$'000	Leasehold improvements US$'000	Lab equipment US$'000	Total US$'000
Cost					
Balance at 1 January 2021	508	57	140	–	705
Additions	1,595	5	268	–	1,868
Foreign exchange	(15)	–	(4)	–	(19)
Balance at 31 December 2021	2,088	62	404	–	2,554
Additions	**10,128**	**286**	**1,261**	**93**	**11,768**
On acquisition of subsidiaries	**913**	**111**	**264**	**1,279**	**2,567**
Foreign exchange	**(5)**	**(1)**	**(6)**	**–**	**(12)**
Balance at 31 December 2022	**13,124**	**458**	**1,923**	**1,372**	**16,877**
Accumulated depreciation					
Balance at 1 January 2021	232	24	37	–	293
Depreciation charge for the year	540	7	95	–	642
Foreign exchange	(6)	–	(1)	–	(7)
Balance at 31 December 2021	766	31	131	–	928
Depreciation charge for the year	**1,886**	**58**	**456**	**72**	**2,472**
Disposals	**–**	**–**	**–**	**–**	**–**
Foreign exchange	**16**	**9**	**31**	**–**	**56**
Balance at 31 December 2022	**2,668**	**98**	**618**	**72**	**3,456**
Net book value					
At 31 December 2020	276	33	103	–	412
At 31 December 2021	1,322	31	273	–	1,626
At 31 December 2022	**10,456**	**360**	**1,305**	**1,300**	**13,421**

Company

The Company has no property, plant and equipment.

15 Intangible assets

Group	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						
Balance at 1 January 2021	140	–	–	–	–	140
Additions	1,038	–	–	–	–	1,038
Foreign exchange	(11)	–	–	–	–	(11)
Balance at 31 December 2021	1,167	–	–	–	–	1,167
On acquisition of subsidiaries	38,887	83,900	25,700	5,200	386	154,073
Additions	4,343	4,255	–	–	3,747	12,345
Foreign exchange	(49)	–	–	–	–	(49)
Balance at 31 December 2022	44,348	88,155	25,700	5,200	4,133	167,536
Accumulated amortisation						
Balance at 1 January 2021	–	–	–	–	–	–
Amortisation charge for the year	–	–	–	–	–	–
Foreign exchange	–	–	–	–	–	–
Balance at 31 December 2021	–	–	–	–	–	–
Amortisation charge for the year	4,730	–	714	347	368	6,159
Foreign exchange	(29)	–	–	–	–	(29)
Balance at 31 December 2022	4,701	–	714	347	368	6,130
Net book value						
At 31 December 2020	140	–	–	–	–	140
At 31 December 2021	1,167	–	–	–	–	1,167
At 31 December 2022	39,647	88,155	24,986	4,853	3,765	161,406

Amortisation is recognised in the R&D/engineering line of the consolidated statement of comprehensive income.

Developed technology consists of intangible assets that are still under development and are not yet available for use.

Company

The Company has no intangible assets.

16 Goodwill

Group	Total US$'000
Cost	
Balance at 1 January 2021 and 2022	–
On acquisition of subsidiaries[1]	331,886
Foreign exchange	–
Balance at 31 December 2022	**331,886**
Impairment	
Balance at 1 January 2021 and 2022	–
Impairment charge for the year	–
Balance at 31 December 2022	–
Net book value	
At 31 December 2020	–
At 31 December 2021	–
At 31 December 2022	**331,886**

1. OpenFive and Banias goodwill balances are provisional. See note 33 Business combinations.

The Group is required to test, on an annual basis, whether goodwill has suffered any impairment. The recoverable amount is determined based on value-in-use calculations. The use of this method requires the estimation of future cash flows and the determination of a discount rate in order to calculate the present value of the cash flows.

Movements in goodwill during the years ending 31 December 2022 and 2021 were as follows:

	2022 US$'000	2021 US$'000
At the beginning of the year	–	–
Businesses acquired during the year (note 33)	331,886	–
At the end of the year	**331,886**	–

Management considers that the Group's operations constitute a single operating segment. Furthermore, management considers that the Group's operations are interdependent such that there is no asset or group of assets 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 at a level lower than the Group level. Goodwill is tested for impairment at Group level.

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 to exceed 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.

17 Right-of-use assets and lease liabilities

Right-of-use assets

Group	Buildings US$'000	Equipment US$'000	Total US$'000
Cost			
Balance at 1 January 2021	6,115	1,706	7,821
Additions	2,321	898	3,219
Disposal	—	(22)	(22)
Foreign exchange	24	(3)	21
Balance at 31 December 2021	8,460	2,579	11,039
Additions	**4,308**	**3,023**	**7,331**
On acquisition of subsidiaries	**2,786**	**—**	**2,786**
Disposal	**—**	**—**	**—**
Foreign exchange	**(248)**	**(104)**	**(352)**
Balance at 31 December 2022	**15,306**	**5,498**	**20,804**
Accumulated depreciation			
Balance at 1 January 2021	718	188	906
Depreciation charge for the year	1,144	1,341	2,485
Foreign exchange	(10)	(14)	(24)
Balance at 31 December 2021	1,852	1,515	3,367
Depreciation charge for the year	**1,706**	**1,330**	**3,036**
Disposal	**—**	**—**	**—**
Foreign exchange	**(90)**	**(62)**	**(152)**
Balance at 31 December 2022	**3,468**	**2,783**	**6,251**
Net book value			
At 31 December 2020	5,397	1,518	6,915
At 31 December 2021	6,608	1,064	7,672
At 31 December 2022	**11,838**	**2,715**	**14,553**

17 Right-of-use assets and lease liabilities continued

Nature of leasing activities (in the capacity as lessee)

The Group has leases for corporate offices, development facilities and certain equipment. The Group also acquired leases with both the OpenFive and Solanium Labs acquisitions. These leases have remaining lease terms ranging from four months to 8.5 years, some of which include options to extend the leases for up to ten years or to terminate the lease with notice periods of 90 days to six months or at predetermined dates as specified within the lease contract. The Group has classified the assets related to these leases as right-of-use assets and the liabilities associated with the future lease payments under these leases as lease liabilities. The weighted average incremental borrowing rate applied to these lease liabilities at initial recognition during the year was 3.95% per annum.

At 31 December 2022 the carrying amounts of lease liabilities are not reduced by the amount of payments that would be avoided from exercising break clauses because at that date it was considered reasonably certain that the Group would not exercise its right to break the lease. Total lease payments of US$nil (2021: US$0.1m) are potentially avoidable were the Group to exercise break clauses at 31 December 2022.

The use of extension and termination options gives the Group added flexibility in the event it has identified more suitable premises in terms of cost and/or location or determined that it is advantageous to remain in a location beyond the original lease term. An option is only exercised when consistent with the Group's strategy and the economic benefits of exercising the option exceed the expected overall cost.

Amounts not included in the measurement of lease liabilities are as follows:

Group	Year ended 31 December 2022 US$'000	Year ended 31 December 2021 US$'000
Short-term lease expense and low-value lease expense	**1,769**	—
Expense relating to variable lease payments not included in the measurement of lease liabilities	**19**	42
	1,788	42

Lease liabilities

Group	Total US$'000
At 1 January 2021	6,801
Additions	3,219
Disposals	(32)
Interest expense	294
Lease payments	(2,494)
Foreign exchange	40
At 31 December 2021	7,828
Additions	**7,196**
Interest expense	**391**
Lease payments	**(3,038)**
On acquisition of subsidiaries	**2,616**
Foreign exchange	**(60)**
At 31 December 2022	**14,933**

Lease liabilities are due as follows:

	Group 31 December 2022 US$'000	Group 31 December 2021 US$'000
Not later than one year	**3,417**	2,160
Between one and five years	**9,158**	5,525
Over five years	**2,358**	143
	14,933	7,828

The total cash outflow for leases is as follows:

Group	Year ended 31 December 2022 US$'000	Year ended 31 December 2021 US$'000
Total cash outflow	**3,038**	2,494

The Group does not face a significant liquidity risk with regard to its lease liabilities.

Company

The Company has no leases.

18 Investments

Group subsidiaries

All subsidiaries have been included in the consolidated financial statements. Details of the Group's subsidiaries as at 31 December 2022 are as follows:

Name of subsidiary	Principal activity	Country of incorporation and principal place of business	Class of share	Proportion of ownership interest and voting rights held by the Group
Alphawave IP Inc.	Developing and licensing high performance connectivity silicon IP for the semiconductor industry	Canada	Ordinary	100%
Alphawave IP Corp.	Sales and sales support for silicon IP licencing and custom silicon solutions.	United States (Delaware)	Ordinary	100%
Alphawave IP (BVI) Ltd.	To facilitate silicon IP licensing to WiseWave Technology Co., LTD	British Virgin Islands	Ordinary	100%
Alphawave Call. Inc.	Non-trading	Canada	Ordinary	100%
Alphawave Exchange Inc.	Non-trading	Canada	Ordinary	100%
Alphawave IP Limited	To facilitate the investment in WiseWave Technology Co., LTD	China	Ordinary	100%
Precise-ITC, Inc.	Developing and licensing high performance connectivity silicon IP for the semiconductor industry	Canada	Ordinary	100%
AWIPInsure Limited	Captive insurance company	Barbados	Ordinary	100%
Alphawave Holdings Corp.	Holding company provides operational support in Taiwan for Open-Silicon, Inc	United States (Delaware)	Ordinary	100%
Open-Silicon, Inc	Provides custom silicon solutions and high-speed connectivity silicon IP	United States (Delaware)	Ordinary	100%
Open-Silicon Holding Corp.	Holding company	Mauritius	Ordinary	100%
Open-Silicon Development Corp.	Dormant	United States (Delaware)	Ordinary	100%
Open-Silicon Engineering, Inc.	Dormant	United States (Delaware)	Ordinary	100%
Open-Silicon International, Inc.	Dormant	United States (Delaware)	Ordinary	100%
Open-Silicon Japan	Dormant	Japan	Ordinary	100%
Open-Silicon Research Private Ltd	Provides research and development contracting services to Open-Silicon International, Inc.	India	Ordinary	100%
Yuanfang Silicon Technology (Nanjing) Co. Ltd	Provides sales and marketing contracting services to Open-Silicon, Inc.	China	Ordinary	100%
Alphawave 102022 Limited	Dormant	United Kingdom (England & Wales)	Ordinary	100%
Solanium Labs Ltd	Developing optical Digital Signal Processing chips for data centres	Israel	Ordinary	100%
Solanium Labs, Inc	Provides Sales support for Solanium Labs, Ltd. Dissolved on 21 December 2022	United States (Delaware)	Ordinary	100%

All of the subsidiaries, with the exception of Alphawave IP (BVI) Ltd, Alphawave Call. Inc., Alphawave IP Limited, AWIPInsure Limited, Alphawave Holdings Corp. and Alphawave 102022 Limited are indirectly held subsidiaries.

The registered office of Alphawave IP Corp. and Alphawave Holdings Corp. is 1730 N 1st St, Suite 650, San Jose, CA, 95112.

The registered office of Alphawave IP (BVI) Ltd is Trinity Chambers, PO Box 4301, Road Town, Tortola, British Virgin Islands.

The registered office of Alphawave IP Limited is 21 Avenida da Praia Grande, No 409, Edificio China Law, 21 andar, em Macau.

The registered office of Precise-ITC, Inc. is 170 University Avenue, 10th Floor, Toronto, Ontario, M5H 3B3.

The registered office of AWIPInsure Limited is 1st Floor, Limegrove Centre, Holetown, St. James, Barbados.

The registered office of Open-Silicon, Inc, Open-Silicon Development Corp, Open-Silicon Engineering, Inc and Open-Silicon International, Inc is 490 N McCarthy Blvd #220, Milpitas, CA 95035.

The registered office of Open-Silicon Holding Corp (Mauritius) is 3rd Floor, Les Cascades, Edith Cavell Street, Port Louis, Mauritius.

The registered office of Open-Silicon Japan is c/o Akia Tax Consultants, Shoei Kannai Building, 22, Sumiyoshicho 2-chrome, Naka-ku, Yokohama, Kanagawa.

The registered office of Open-Silicon Research Private Ltd is No. 11/1 & 12/1 Maruthi Infotech Centre, 2nd Floor, B-Block, Indiranagar, Koramangala Intermediate Ring Road, Bangalore – 560 071, India.

The registered office of Yuanfang Silicon Technology (Nanjing) Co. Ltd is Room 101, Building B, No. 300, Zhihui Road, Qilin Science and Technology Innovation Park, Jiangning District, Nanjing.

The registered office of Alphawave 102022 Limited is 65 Gresham Street, 6th Floor, London, England, EC2V 7NQ.

The registered office of Solanium Labs Ltd. is 24 Hanagar, Hod HaSharon 4527713, Israel.

The registered office of all other subsidiaries is 70 University Ave, 10th Floor, Toronto, Ontario, Canada M5J 2M4.

Summary of the Company investments

Company	Subsidiaries US$'000
Cost	
On incorporation	—
Addition	18,236
Share-based payment capital contribution	4,155
At 31 December 2021	22,391
Addition	**240,135**
Share-based payment capital contribution	**17,847**
Carrying amount	
At 31 December 2021	22,391
At 31 December 2022	**280,373**

In FY2022, the Company acquired 100% of the share capital of Solanium Labs Ltd (Banias Labs). Further details are provided in note 33.

18 Investments continued

Investment in joint ventures

The following entities have been included in the consolidated financial statements using the equity method:

Name of joint venture	Principal activity	Country of incorporation and principal place of business	Class of share	Proportion of ownership interest and voting rights held by the Group
WiseWave Technology Co., LTD	A semiconductor device company focused on the mainland Chinese market	China	Ordinary	42.5%

The registered office of WiseWave Technology Co., LTD is Room 105, No. 6, Baohua Road, Hengqin New District, Zhuhai, China.

Group	Joint venture US$'000
Cost and net book value	
At 1 January 2021	–
Additions	22,360
Share of loss	(12,939)
At 31 December 2021	9,421
Additions	9,060
Share of loss	(18,481)
At 31 December 2022	**–**

Summarised financial information for joint venture:

	Year ended 31 December 2022 US$'000	Year ended 31 December 2021 US$'000
Current assets	18,536	32,114
Property and equipment	1,908	12
Intangible assets	71,331	29,018
Other non-current assets	4,883	—
Current liabilities	27,351	9,707
Non-current liabilities	42,317	—
Included in the above amounts are:		
Cash and cash equivalents	15,729	30,664
Current financial liabilities (excluding trade payables)	—	—
Non-current financial liabilities (excluding trade payables)	—	—
Net assets (100%)	26,990	51,437
Group share of net assets (42.5%)	11,471	21,861
Period ended 31 December:		
Revenues	5,517	—
(Loss) from continuing operations	(37,764)	(1,522)
Other comprehensive income	—	—
Included in the above amounts are:		
Depreciation and amortisation	(18,267)	(925)
Interest expense	(2,936)	(73)
Total comprehensive expense (100%)	(37,764)	(1,522)
Group share of total comprehensive expense (42.5%)	(16,050)	(647)

The above summary financial information has been aligned with the accounting policies of the Group. The recognition of intangible assets and related amortisation has been adjusted for the purposes of aligning the Group recognition policies. Revenue transactions between Alphawave and WiseWave are accounted for on the basis that we are principal and they are agent.

Share of post-tax loss of equity-accounted joint ventures:

	Year ended 31 December 2022 US$'000	Year ended 31 December 2021 US$'000
Share of loss	16,050	647
Elimination of gains from sales to the joint venture	2,431	12,292
Total	18,481	12,939

Revenues of US$37.5m (2021: US$29.8m) were made from provision of IP to WiseWave. To the extent that WiseWave has not yet utilised the IP, the proportion of the Group's investment has been eliminated and will be released over the term of the subscription licence of five years.

19 Trade and other receivables

Current	Group 2022 US$'000	Group 2021 US$'000	Company 2022 US$'000	Company 2021 US$'000
Trade receivables from contracts with customers	16,455	12,074	–	–
Less: expected credit loss provision	(2,184)	–	–	–
Trade receivables at amortised cost – net	14,271	12,074	–	–
Other receivables – current	18,888	158	13,922	–
Other receivables – non-current	19,272	–	17,091	–
Total financial assets other than cash and cash equivalents carried at amortised cost	52,431	12,232	31,013	–
Prepayments	70,601	262	272	146
Capitalised contract costs	874	609	–	–
Total trade and other receivables	123,906	13,103	31,285	146
Amounts owed from Group subsidiaries – current	–	–	14,769	367
Amounts owed from Group subsidiaries – non-current	–	–	260,011	22,997
Total trade and other receivables and amounts owed from Group subsidiaries	123,906	13,103	306,065	23,510

Group

The carrying value of trade and other receivables approximates to fair value.

The Group applies the IFRS 9 simplified approach to measuring expected credit losses (ECL) using a lifetime ECL provision for trade and other receivables. The expected loss rates are based on the Group's historical credit losses. The historic loss rates are then adjusted for current and forward-looking information on macroeconomic factors affecting the Group's customers.

The Group's exposure to credit and market risks, including impairments and allowances for credit losses, relating to trade and other receivables is disclosed in note 28.

All trade and other receivables have been reviewed under the ECL impairment model. As at 31 December 2022, an ECL provision of US$2.2m was recognised. As at 31 December 2021, the Group's ECL provision was not material and therefore not recognised. See financial instruments note 28 for information on the Group's ECL policy.

Prepayments of US$70.6m have increased significantly from 2021. This increase was due to prepayments of US$50.9m from the OpenFive acquisition, which represent advance payments to foundries to reserve fab capacity and are predominantly covered by advance receipts from customers and other prepayments of US$19.7m (2021: US$2.5m).

The Company has significant current and non-current amounts owed to it by other Group entities. Current amounts relate to normal course operational trading where balances are expected to be recovered within a year. Non-current amounts relate to loans to non-trading entities in respect of our acquisition of OpenFive and equity investment in WiseWave, where balances are not expected to be recovered within a year.

Current and non-current other receivables in both the Company and the Group includes prepayments of deferred compensation to employees in lieu of share-based remuneration committed as part of the acquisition of Banias. These were paid in cash and are held by a third party under the terms of the sale and purchase agreement to be released to employees over time conditional upon their continued employment. There is also a similar balance within trade and other receivables in the Group which relates to a prepayment of deferred compensation based on continued employment with the Group as part of the Precise-ITC acquisition.

20 Inventories

	Group 31 December 2022 US$'000	Group 31 December 2021 US$'000	Company 31 December 2022 US$'000	Company 31 December 2021 US$'000
Finished goods	3,616	–	–	–
Work in progress	10,413	–	–	–
Raw materials	4,032	–	–	–
Total inventories	**18,061**	–	–	–

The carrying value of inventories at 31 December 2022 is presented net of the US$0.5m provision for obsolescence.

21 Trade and other payables

Trade and other payables

Current	Group 31 December 2022 US$'000	Group 31 December 2021 US$'000	Company 31 December 2022 US$'000	Company 31 December 2021 US$'000
Trade payables	23,573	1,317	1,302	366
Other payables	18,956	–	6,249	–
Accrued expenses	33,287	4,038	4,826	637
Contingent consideration	5,000	–	–	–
Employee-related liabilities	1,035	450	23	10
Social security and other taxes	1,204	–	–	–
Total current trade and other payables	**83,055**	5,805	**12,400**	1,013

Non-current	Group 31 December 2022 US$'000	Group 31 December 2021 US$'000	Company 31 December 2022 US$'000	Company 31 December 2021 US$'000
Other payables	10,555	–	4,423	–
Total non-current trade and other payables	**10,555**	–	**4,423**	–
Total trade and other payables	**93,610**	5,805	**16,823**	1,013
Amounts owed to Group subsidiaries – current	–	–	–	150
Total trade and other payables and amounts owed to Group subsidiaries	**93,610**	5,805	**16,823**	1,163

Group

The carrying value of trade and other payables classified as financial liabilities measured at amortised cost approximates fair value.

Trade payables have increased from US$1.3m in 2021 to US$23.6m in 2022. The increase was predominantly due to significant purchases of lab equipment in December 2022 and invoices received from foundry suppliers at the end of the year.

Both current other payables of US$19.0m (2021: US$nil) and non-current other payables of US$10.6m (2021: US$nil) have increased due to deferred compensation payments in lieu of share-based remuneration committed as part of the acquisition of Banias.

Accrued expenses have increased from US$4.0m in 2021 to US$33.3m in 2022. The increase is primarily due to accruals of sales tax in an overseas subsidiary, retention bonuses due to employees who joined Alphawave as part of the OpenFive and Precise-ITC acquisitions and interest due on our borrowings. Contingent consideration is recorded at fair value, see note 33 for details.

22 Loans and borrowings

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

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

Our borrowings under the Credit Agreement and Incremental Facility Amendment are subject to a net leverage ratio and a fixed charges coverage ratio which are defined in the Credit Agreement and tested quarterly. The maximum permissible net leverage ratio is 3.75x up to the period ending 30 June 2023, 3.5x up to the period ending 31 March 2024 and 3.0x thereafter. The minimum fixed charges coverage ratio is 1.25x over the term of the debt.

	Group 31 December 2022 US$'000	Group 31 December 2021 US$'000	Company 31 December 2022 US$'000	Company 31 December 2021 US$'000
Current				
Bank loan	5,000	—	5,000	—
Non-current				
Bank loan	203,750	—	203,750	—
IIA[1]	1,451	—	—	—
Total borrowings	210,201	—	208,750	—

1. Israel Innovation Authority.

23 Employee benefits liabilities

Liabilities for employee benefits comprise:

	Group 31 December 2022 US$'000	Group 31 December 2021 US$'000	Company 31 December 2022 US$'000	Company 31 December 2021 US$'000
Accrual for annual leave	1,035	450	23	10

24 Deferred tax

The movement on the deferred tax account is as shown below:

	Group US$'000	Company US$'000
2022		
At 1 January 2022	**422**	**–**
Credit to profit or loss	**(278)**	**–**
On acquisition of subsidiaries	**31,094**	**–**
Transfer of tax credits	**(4,350)**	**–**
Foreign exchange	**82**	**–**
At 31 December 2022	**26,970**	**–**
2021		
At 1 January 2021	492	–
Credit to profit or loss	(74)	–
Foreign exchange	4	–
At 31 December 2021	422	–

The deferred tax account is made up as follows:

	Group 31 December 2022 US$'000	Group 31 December 2021 US$'000	**Company 31 December 2022 US$'000**	Company 31 December 2021 US$'000
Accelerated capital allowances	**676**	74	**–**	–
Leases	**(65)**	(41)	**–**	–
Intangibles	**29,194**	–	**–**	–
Transfer of tax credits	**(4,350)**	–	**–**	–
Other temporary differences	**1,515**	389	**–**	–
Total	**26,970**	422	**–**	–

See note 33 for details of the breakdown of acquired intangibles deferred tax liability by acquisition.

There are unrecognised deferred tax assets relating mainly to unutilised US tax loses arising from the acquisition of OpenFive. See note 33 for more details.

As at 31 December 2022, the Group has a deferred tax asset of US$10.0m and a deferred tax liability of US$37.0m. 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$2.7m and a deferred tax liability of US$29.7m in the consolidated statement of financial position.

25 Share capital

Authorised share capital	Number of shares 2022	US$'000 2022	Number of shares 2021	US$'000 2021
Ordinary shares of £0.01 each	**695,068,200**	**9,751**	664,965,934	9,399

Issued and fully paid	Number of shares	US$'000
Redeemable preference shares of £1 each		
Balance as at 31 December 2020	–	–
Primary share issue at Initial Public Offering	50,000	71
	50,000	71
Shares redeemed	(50,000)	(71)
Balance as at 31 December 2021	–	–
Balance as at 31 December 2022	**–**	**–**

Issued and fully paid	Number of shares	US$'000
Ordinary shares of £0.01 each		
Balance as at 31 December 2020 in Alphawave IP Inc.	27,927,252	–
Exercise of options pre Initial Public Offering	265,701	–
Sub-total	**28,192,953**	**–**
20 for 1 share exchange	563,859,060	796,958
Shares issued to option holders on exercise	13,049,861	18,445
	576,908,921	815,403
Primary share issue at Initial Public Offering	87,835,796	124,147
Further issue of shares	221,217	313
	664,965,934	939,863
Capital reduction	–	(930,464)
Balance as at 31 December 2021	664,965,934	9,399
Shares issued to option holders on exercise	29,442,453	344
Further issue of shares	659,813	8
Balance as at 31 December 2022	**695,068,200**	**9,751**

On 14 May 2021, the Company acquired the entire issued share capital of Alphawave IP Inc. in return for 576,908,921 ordinary shares issued by the Company with a nominal value of £1. This was based on 20 shares in the Company for each share in Alphawave IP Inc.

The Company issued 87,835,796 shares, as a primary offering, with a nominal value of £1 as part of its listing on the London Stock Exchange at a price of US$5.79 (£4.10), resulting in gross proceeds to the Company of US$509.0m (£360.1m) accounted for as share capital of US$124.1m (£87.8m) and share premium of US$384.9m (£272.3m).

Net proceeds after bank syndication fees were US$492.1m (£347.1m) with further costs relating to the issuance of shares resulting in total costs of US$20.4m (£14.5m), chargeable to the share premium account. However, the Company received US$22.2m (£15.7m) as proceeds of a stock stabilisation programme which were set off against these Initial Public Offering costs, resulting in the net proceeds of US$1.8m being posted to the share premium account. The Company had further costs of US$10.0m (£7.2m) relating to the IPO but not relating directly to the issuance of new shares. These have been charged to the statement of comprehensive income as non-recurring costs.

As part of the transaction there was a secondary offering where certain employees, Directors and founders sold a total of 120,859,856 shares, including the 13,049,861 options converted to shares and described below, at £4.10 per share.

In addition, all options held over Alphawave IP Inc. stock became, by way of an amendment to option agreements, options in Company shares, on the basis of 20 options in the Company for 1 option in Alphawave IP Inc., each with an exercise price of 1/20th of the original exercise price at the grant date.

On the Initial Public Offering date and as part of the secondary offering, 13,049,861 options were exercised into newly issued ordinary shares in the Company. The options exercised all had exercise prices below the £1 nominal value as a result of them maintaining their original exercise prices when they were granted as options in the shares of Alphawave IP Inc. This resulted in exercise proceeds of US$4.1m (£2.8m) with the shortfall in share capital of US$14.4m (£10.2m) being transferred from the merger reserve to the share capital account.

Finally, at IPO a further 221,217 ordinary shares were issued and purchased by our Non-Executive Directors at the market price of £4.10.

The reorganisation of the Company's corporate structure described above has been accounted for as a common control transaction and has been given effect from 1 January 2020. This has resulted in the opening share capital position being adjusted as if the reorganisation had happened on that date. In addition, a merger reserve has been established which reflects the difference between the share capital issued to acquire the shares in Alphawave IP Inc. and the share capital of Alphawave IP Inc. acquired at the transaction date of 14 May 2021.

Pursuant to the General Meeting of the Company held on 12 May 2021, it was resolved that the Company's share capital be reduced from £1 per ordinary share, to £0.01. This was confirmed by an Order of the High Court of Justice, Chancery Division and certified by the registrar of Companies on 16 and 17 November, respectively.

On 6 December 2021 the preference shares were redeemed.

On 8 March 2022 the Company issued 300,000 shares at £0.01 per share and 108,333 shares at £0.187058 per share.

On 16 March 2022 the Company issued 1,874,860 shares at £0.01 per share and 40,500 shares at £0.187058 per share.

On 5 May 2022 the Company issued 2,151,680 ordinary shares at £0.01 per share.

On 24 May 2022 the Company issued 1,289,483 ordinary shares at £0.01 per share, 15,417 ordinary shares at £0.8251 per share and 54,007 ordinary shares at £0.187058 per share.

On 25 May 2022 the Company issued 12,028 ordinary shares at £0.8251 per share and 5,461 ordinary shares at £0.187058 per share.

On 26 May 2022 the Company issued 37,972 ordinary shares at £0.8251 per share, 182,025 ordinary shares at £0.187058 per share and 154,167 ordinary shares at £0.01 per share.

On 30 May 2022 the Company issued 64,583 ordinary shares at £0.187058 per share, 8,333 ordinary shares at £0.018121 per share, 1,002,000 ordinary shares at £0.01 per share.

On 31 May 2022 the Company issued 100,387 ordinary shares at £0.01 per share.

On 1 June 2022 the Company issued 7,877 ordinary shares at £0.187058 per share.

From 13 June 2022 to 30 June 2022 the Company issued 7,890,627 ordinary shares at £0.01 per share, 130,083 ordinary shares at £0.018121 per share, 803,121 ordinary shares at £0.187058 per share and 223,233 ordinary shares at £0.8251 per share.

From 5 July 2022 to 12 July 2022 the Company issued 3,647,500 ordinary shares at £0.01 per share and 58,749 ordinary shares at £0.187058 per share.

From 12 July 2022 to 2 August 2022 the Company issued 3,186,688 ordinary shares at £0.01 per share, 131,250 ordinary shares at £0.018121 per share, 183,434 ordinary shares at £0.187058 per share and 19,583 ordinary shares at £0.825101 per share.

Between the 3 August 2022 to 25 August 2022 the Company issued 628,750 ordinary shares at £0.01 per share, 16,567 ordinary shares at £0.187058 per share and 4,166 ordinary shares at £0.825101 per share.

25 Share capital continued

From 26 August 2022 to 23 September 2022 the Company issued 751,354 ordinary shares at £0.01 per share, 10,416 ordinary shares at £0.1871 per share and 10,000 ordinary shares at £0.825101 per share.

From 30 September 2022 to 12 October 2022 the Company issued 1,820,373 ordinary shares at £0.01 per share, 62,500 ordinary shares at £0.187058 per share and 50,001 ordinary shares at £0.825101 per share.

From 21 October 2022 to 21 November 2022 the Company issued 2,145,858 ordinary shares at £0.01 per share, 50,860 ordinary shares at £0.018121 per share and 163,751 ordinary shares at £0.187058 per share.

From 28 November 2022 to 19 December 2022 the Company issued 527,207 ordinary shares at £0.01 per share, 104,166 ordinary shares at £0.018121 per share, 56,249 ordinary shares at £0.187058 per share and 16,667 ordinary shares at £0.825101 per share.

Rights and restrictions

Each ordinary share carries the right to one vote on a poll. The right to vote is determined by reference to the register of members at a time specified in the notice of meeting. All dividends shall be declared and paid according to the amounts paid up on the share. The shares do not carry any rights in respect to capital to participate in a distribution (including on winding up) other than those that exist as a matter of law. The shares are not redeemable.

26 Reserves

The following describes the nature and purpose of each reserve within equity:

Reserve	Description and purpose
Share capital	Amount subscribed for share capital at nominal value.
Share premium	The premium arising on issue of equity shares, net of issue expenses.
Share-based payment reserve	The share-based payment reserve is used to recognise the grant date fair value of shares issued to employees.
Merger reserve	The difference between the share capital issued to acquire the shares in Alphawave IP Inc. and the share capital of Alphawave IP Inc. acquired at the transaction date of 14 May 2022.
Foreign exchange reserve	Gains or losses arising on retranslating the net assets of overseas operations.
Retained earnings	All other net gains and losses and transactions with owners not recognised elsewhere.

27 Share-based payment

The Company operates two equity-settled share-based incentive schemes for employees – an option scheme, which was utilised prior to the IPO, and a Restricted Share Unit (RSU) scheme used both pre and post IPO. The terms of any options and RSUs granted under the schemes are specified within individual grant agreements.

Both options and RSUs typically vest over four years with 25% vesting after one year from the grant date with the remaining 75% vesting equally each month over the following 36 months. They have a life of five years which can be extended with Board approval. The exercise price of option grants was set at the fair value of the Company's common shares as determined by the implied valuation at the prior funding round.

Each share option or RSU in Alphawave IP Inc. became 20 share options or RSUs in the Company by way of an amendment to the option or RSU agreements immediately prior to the Company's admission to listing on 18 May 2021. The exercise price of any share options outstanding at that time was divided by 20.

Each share option or RSU converts into one voting share of the Company on exercise or vesting. No amounts are paid or payable by the recipient on receipt of the option or RSU. The options or RSUs carry neither rights to dividends nor voting rights. Options may be exercised at any time from the date of vesting to the date of their expiry. The only vesting condition of the options and RSUs is that the individual remains an employee of the Group over the vesting period.

Options on non-voting common shares:	31 December 2022 Number of share options	31 December 2022 Weighted average exercise price (US$)	31 December 2021 Number of share options	31 December 2021 Weighted average exercise price (US$)
Outstanding at the beginning of the period	**95,273,220**	**0.280**	4,557,955	1.874
Exercised during the period	**(30,102,266)**	**0.102**	(936,944)	5.760
Forfeited during the period	**(2,588,486)**	**1.381**	—	—
Granted during the period	**23,109,685**	**1.640**	1,142,650	20.04
Share exchange during the period	**—**	**—**	90,509,559	—
Outstanding at the end of the period	**85,692,153**	**0.712**	95,273,220	0.280
Exercisable at the end of the period	**41,720,539**	**0.221**	63,833,174	0.080

The exercise price of options over non-voting shares outstanding at 31 December 2022 ranged between US$0.08 and US$1.13 (2021: US$0.08 and US$1.13) after adjusting for the 20:1 share split which happened immediately prior to the Initial Public Offering in May 2021 and their weighted average contractual life was 2.30 years (2021: 3.07 years).

The weighted average value per option during the year was US$1.60 (2021: US$0.17).

The total expense included within the consolidated statement of comprehensive income for the Group for the current year is US$15,695,000 (2021: US$6,143,000), and for the Company is US$235,000 (period ended 31 December 2021: US$342,000).

The following information is relevant in the determination of the fair value of options granted during the year:

	31 December 2022	31 December 2021
Option pricing model used	**Black-Scholes-Merton**	Black-Scholes-Merton
Risk-free interest rate	**3.44%**	0.91%
Expected volatility	**29.72%**	29.72%
Expected dividend yield	**0%**	0%
Expected life of stock option	**4 years**	4 years

The Group has determined the forfeiture rate to be nil and volatility was determined in reference to listed entities similar to the Group.

Volatility was determined with reference to similar listed entities using the historical stock price volatility of those entities over the estimated expected term of the option awards.

28 Financial instruments – risk management

The Group is exposed through its operations to the following financial risks:

- credit risk;
- interest rate risk;
- foreign exchange risk;
- other market price risk;
- liquidity risk; and
- capital risk.

In common with other businesses, the Group is exposed to risks that arise from its use of financial instruments. This note describes the Group's objectives, policies and processes for managing those risks and the methods used to measure them. Further quantitative information in respect of these risks is presented throughout these financial statements.

There have been no substantive changes in the Group's exposure to financial instrument risks, its objectives, policies and processes for managing those risks or the methods used to measure them from previous periods unless otherwise stated in this note.

28 Financial instruments – risk management continued

Principal financial instruments

The principal financial instruments used by the Group, from which financial instrument risk arises, are as follows:

- Trade and other receivables
- Cash and cash equivalents
- Trade and other payables

The Group and Company's financial instruments are categorised as follows:

Financial assets

Amortised cost

	Group 2022 US$'000	Group 2021 US$'000	Company 2022 US$'000	Company 2021 US$'000
Trade receivables	14,271	12,074	—	—
Amounts owed by Group undertakings	—	—	274,780	23,364
Other receivables	109,635	158	31,285	—
Accrued revenue	58,534	31,719	—	—
Cash and cash equivalents	186,231	500,964	125,729	463,360
Total financial assets held at amortised cost	368,671	544,915	431,794	486,724

Financial liabilities

Amortised cost

	Group 31 December 2022 US$'000	Group 31 December 2021 US$'000	Company 31 December 2022 US$'000	Company 31 December 2021 US$'000
Trade payables	23,573	1,317	1,302	366
Other payables	30,715	—	10,672	—
Accrued expenses	33,287	4,038	4,826	637
Contingent consideration	5,000	—	—	—
Employee-related liabilities	1,035	450	23	10
Amounts owed to Group undertakings	—	—	—	150
Flexible spending account	5,200	6,819	—	—
Loans and borrowings	210,201	—	208,750	—
Total financial liabilities held at amortised cost	309,011	12,624	225,573	1,163

Financial instruments not measured at fair value

Financial instruments not measured at fair value include cash and cash equivalents, trade and other receivables, trade and other payables, and loans and borrowings.

Due to their short-term nature, the carrying value of cash and cash equivalents, trade and other receivables, and trade and other payables approximates their fair value.

General objectives, policies and processes

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 overall objective of the Board is to set policies that seek to reduce risk as far as possible without unduly affecting the Group's competitiveness and flexibility. Further details regarding these policies are set out below:

Credit risk

The Group recognises a loss allowance for expected credit losses (ECL) on accounts receivable and accrued revenue that are measured at amortised cost, under IFRS 9. The Group applies the simplified approach for accounts receivable and accrued revenue and recognises the lifetime ECL for these assets. The simplified approach allows entities to recognise lifetime expected losses on all these assets without the need to identify significant increases in credit risk.

The ECL on accounts receivable and accrued revenue is 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 at the reporting date, including time value of money where appropriate. There may be circumstances that lead management to conclude on different values of ECL for particular trade receivables and accrued revenue balances than those suggested by the matrix.

The Group has grouped its trade receivables and contract assets based on credit risk factors for the purposes of constructing the provision matrix. The Group uses the following credit risk groupings and estimates different loss rates for each grouping:

- start-up based in developing country: gross carrying amount US$25.3m, impairment allowance US$0.3m, net carrying amount US$25.0m;
- start-up based in RoW: gross carrying amount US$21.5m, impairment allowance US$1.2m, net carrying amount US$20.3m;
- established company based in developing country: gross carrying amount US$8.2m, impairment allowance US$0.2m, net carrying amount US$8.0m; and
- established company based in RoW: gross carrying amount US$20.0m, impairment allowance US$0.5m, net carrying amount US$19.5m.

	31 December 2022 US$'000	31 December 2021 US$'000
Opening ECL provision	–	–
Loss allowance measured at an amount equal to twelve-month expected credit losses	–	–
Loss allowance measured at an amount equal to lifetime expected credit loss for trade receivables and contract assets	2,184	–
Financial assets purchased or originated credit-impaired	–	–
Closing ECL provision	2,184	–

The Group recognised an expected credit loss in the statement of comprehensive income of US$2.2m in 2022. This was derived from multiple customers who had either overdue trade receivables balances or aged accrued revenue balances, or both. As at 31 December 2022, US$1.5m of accounts receivable were greater than 90 days overdue and US$0.7m of accrued revenue was aged greater than one year.

The Group had accounts receivable from one customer that made up 20% (2021: 25%) of the total balance. None of the amounts outstanding have been challenged by the customer and the Group continues to conduct business with them on an ongoing basis. Accordingly, management has no reason to believe that these balances are not fully collectible in the future.

Credit risk also arises from cash and cash equivalents and deposits with banks and financial institutions. The Group monitors the credit quality of financial institutions where it keeps its funds. Currently, it deals with a bank having Aa2 credit rating by Moody's.

The Group trades only with recognised, creditworthy third parties and independent credit checks and credit limits are managed by the trading entities. Credit limits can only be exceeded if authorised by the Chief Financial Officer. Receivable balances are monitored on an ongoing basis with the result that the Group's exposure to bad debts is not significant, especially given past payment history of longstanding customers. There are no significant concentrations of credit risk within the Group.

28 Financial instruments – risk management continued

Market risk

Market risk is the risk that the fair value or future cash flows of a financial instrument will fluctuate because of changes in market prices whether those changes are caused by factors specific to the individual financial instrument or its issuer, or factors affecting similar financial instruments traded in the market. Market price risks include interest rate risk, currency risk and other price risk.

Interest rate risk

Interest rate risk is the risk that the fair value or future cash flows of a financial instrument will fluctuate because of changes in market interest rates. In the prior year, the Group was exposed to interest rate risk on its floating rate bank indebtedness. If the interest rates were to fluctuate 5%, there would be no significant impact on the Group's financial statements due to the short-term nature of the debt.

Foreign exchange risk

Foreign exchange risk is the risk to the Group's earnings that arise from fluctuations of foreign exchange rates and the degree of volatility of these rates. There is a risk that significant fluctuations in the exchange rates between US$ and CAD$ and between US$ and GBP cause an adverse impact on the Group's profitability. The Group does not use derivative instruments to reduce its exposure to foreign exchange risk.

The Group's exposure to foreign exchange risk is as follows:

31 December 2022	CAD US$'000	GBP US$'000	ILS US$'000	INR US$'000	RMB US$'000	Total US$'000
Cash and cash equivalents	(6,648)	125,218	833	1,965	12,986	134,354
Trade and other receivables	—	—	—	1,572	23	1,595
Accrued income	—	—	—	—	—	—
Trade and other payables	1,663	952	794	2,660	10,039	16,108
Deferred income	—	—	—	—	70,324	70,324
	(4,985)	126,170	1,627	6,197	93,372	222,381

31 December 2021	CAD US$'000	GBP US$'000	Total US$'000
Cash and cash equivalents	876	364,837	365,713
Trade and other receivables	12,836	146	12,982
Accrued income	28,016	—	28,016
Trade and other payables	4,615	366	4,981
Deferred income	12,661	—	12,661
	59,004	365,349	424,353

As at 31 December 2022, if CAD$ had strengthened/weakened by 5% with all other variables held constant, total Group loss for the year would have changed from US$1,086,000 to be a profit of approximately US$3,721,000 and a loss of US$5,893,000 (2021: profit of US$10,405,000 and US$9,640,000), respectively, mainly as a result of the foreign exchange gains and losses on translation of foreign exchange financial instruments.

As at 31 December 2022, if GBP had strengthened/weakened by 5% with all other variables held constant, total Group loss for the year would have changed from US$1,086,000 to be a loss of approximately US$503,000 and US$1,669,000 (2021: profit of US$10,376,000 and US$9,631,000) respectively, mainly as a result of the foreign exchange gains and losses on translation of foreign exchange financial instruments.

As at 31 December 2022, if ILS had strengthened/weakened by 5% with all other variables held constant, total Group loss for the year would have changed from US$1,086,000 to be a loss of approximately US$1,068,000 and US$1,104,000 (2021: US$nil and US$nil) respectively, mainly as a result of the foreign exchange gains and losses on translation of foreign exchange financial instruments.

As at 31 December 2022, if INR had strengthened/weakened by 5% with all other variables held constant, total Group loss for the year would have changed from US$1,086,000 to be loss of approximately US$899,000 and US$1,273,000 (2021: US$nil and US$nil) respectively, mainly as a result of the foreign exchange gains and losses on translation of foreign exchange financial instruments.

As at 31 December 2022, if RMB had strengthened/weakened by 5% with all other variables held constant, total Group loss for the year would have changed from US$1,086,000 to be a loss of approximately US$996,000 and US$1,176,000 (2021: US$nil and US$nil) respectively, mainly as a result of the foreign exchange gains and losses on translation of foreign exchange financial instruments.

Other price risk

Other price risk is the risk that the fair value or future cash flows of a financial instrument will fluctuate because of changes in market prices (other than those arising from interest rate risk or currency risk), whether those changes are caused by factors specific to the individual financial instrument or its issuer, or factors affecting all similar financial instruments traded in the market. There are no financial assets subject to market rate price fluctuations. The Group's exposure to other price risk is minimal.

28 Financial instruments – risk management continued

Liquidity risk

Liquidity risk arises from the Group's management of working capital and the finance charges and principal repayments on its debt instruments. Liquidity risk is the risk that the Group will not be able to meet its financial obligations as they fall due.

The Group's policy is to ensure that it will always have sufficient liquid assets to allow it to meet its liabilities when they become due.

The Group manages its liquidity risk by reviewing its growth plans on an ongoing basis as well as maintaining excess capacity on its line of credit.

The following table sets out the contractual maturities (representing undiscounted contractual cash flows) of financial liabilities:

31 December 2022	Due within 1 year US$'000	Due between 1 and 5 years US$'000	Due > 5 years US$'000	Total US$'000
Trade payables	23,573	–	–	23,573
Other payables	20,160	10,555	–	30,715
Accrued expenses	33,287	–	–	33,287
Contingent consideration	5,000	–	–	5,000
Employee-related liabilities	1,035	–	–	1,035
Loans and borrowings	5,000	205,201	–	210,201
Flexible spending account	5,200	–	–	5,200
Lease liabilities	3,756	8,819	2,358	14,933
	97,011	224,575	2,358	323,944

31 December 2021	Due within 1 year US$'000	Due between 1 and 5 years US$'000	Due > 5 years US$'000	Total US$'000
Trade payables	1,317	–	–	1,317
Other payables	–	–	–	–
Accrued expenses	4,038	–	–	4,038
Employee-related liabilities	450	–	–	450
Loans and borrowings	–	–	–	–
Flexible spending account	6,819	–	–	6,819
Lease liabilities	2,160	5,525	143	7,828
	14,784	5,525	143	20,452

Capital risk management

The Group's primary objectives with respect to its capital management are to safeguard the Group's ability to continue as a going concern in order to provide returns for shareholders and benefits for other stakeholders and to maintain an optimal capital structure to reduce the cost of capital and to have sufficient cash resources to fund product development and operations.

As at 31 December 2022, the Group had gross borrowings through its Term Loan and RCF of US$208.8m as detailed in note 22. The Group remains in compliance with its banking covenants. The Group maintains a significant gross cash position of US$186.2m which it holds in instant access, fixed term deposit or notice accounts across various banks.

Management reviews its capital management approach on an ongoing basis. During the course of 2022, the Group's approach to capital management has adapted to reflect the reduction in gross cash following the acquisitions of Precise-ITC, OpenFive and Banias as well as the assumption of borrowings. The Group's priorities for capital management are organic investment in technology development and maintaining flexibility to reduce gross borrowings in response to macroeconomic conditions and the requirements of the business.

29 Retirement benefit schemes

Defined contribution schemes

Group

The Group operates defined contribution retirement benefit schemes. The pension cost charge for the year represented contributions payable by the Group to the schemes and amounted to US$1,300,000 (2021: US$253,000). Contributions totalling US$3,000 (2021: US$2,000) were payable to the schemes at the end of the year and are included in other creditors.

30 Government assistance

During 2021, the Group received US$55,000 CEWS from the Government of Canada. This was prior to the Initial Public Offering when Alphawave IP Inc. was a private Canadian company faced with uncertainty as to the longer-term impact on the business. Post the Initial Public Offering, whilst Alphawave IP Inc. is entitled to COVID-related grants, the Board and management team has elected not to receive them. No government assistance has been requested nor taken in the UK since the Company's incorporation and Initial Public Offering.

In 2022, the Group did not receive any government assistance.

31 Related party transactions

Transactions between the Company and its subsidiaries, which are related parties, have been eliminated on consolidation and are not disclosed in this note.

Transactions with Directors and key management personnel of the Group are disclosed in note 8.

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

	31 December 2022 US$'000	31 December 2021 US$'000
Transactions:		
Revenue from companies on which a Director is the chairman of the board[1,2]	3,549	9,855
Revenue from VeriSilicon	3,270	8,861
Revenue from WiseWave, a joint venture, where there is common directorship	58,207	29,846
Costs capitalised as intangible assets from a company on which a Director is a director	(1,200)	—
	63,826	48,562
Balances:		
Accounts receivable from a company on which a Director is the chairman of the board[2]	350	500
Accounts receivable from VeriSilicon	669	2,469
Accounts receivable from WiseWave, a joint venture, where there is common directorship	3,360	—
Accrued revenue from companies on which a Director is the chairman of the board[2]	6,750	5,631
Accrued revenue from VeriSilicon	—	423
Accrued revenue from WiseWave, a joint venture, where there is common directorship	20,217	5,803
	31,346	14,826
Deferred revenue from a company on which a Director is the chairman of the board[1]	686	727
Deferred revenue from VeriSilicon	—	593
	686	1,320

1. US$915,000 of this revenue (2021: US$949,000) and US$686,000 of this deferred revenue (2021: US$677,000) is from Achronix Semiconductor Corporation, where John Lofton Holt ceased to be chairman of the board on 8 July 2021.
2. Companies on which a Director is the chairman of the board are Achronix Semiconductor Corporation, FLC Technology Group and DreamBig Semiconductor Inc.

31 Related party transactions continued

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.

32 Capital commitments

The Group has contractually committed to investing up to US$170,000,000 in WiseWave and as at 31 December 2022 has invested US$31,420,000 (2021: US$22,400,000). WiseWave does not currently anticipate requiring the maximum committed amount and is likely to undertake an external financing round in the medium term. Beyond a potential small internal financing round ahead of any external capital raise, the Group does not intend to make significant further capital contributions to WiseWave. The amount of US$170,000,000 remains a contractually committed amount, but it is unlikely that the maximum amount of investment will be required.

33 Business combinations

Acquisition of Precise-ITC, Inc.

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, brings a team of talented engineers and additional strategic IP to our portfolio. We have been working with Precise since 2019 and our combined IP solutions are already integrated in silicon products for several of our customers. Now, working as one team, we will 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 is 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 this is recorded within trade and other payables in the consolidated statement of financial position.

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 is 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.

Subsequent to its acquisition, Precise generated revenue of US$2,251,000 and a profit of US$2,747,000 that are included in the consolidated statement of comprehensive income.

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, namely US$5,000,000, is payable to the vendors and recognised as a liability measured at fair value. We have recognised the excess of the contingent consideration payable over its fair value at the acquisition date as an expense of US$4,260,000 within other expenses in the consolidated statement of comprehensive income.

Acquisition of OpenFive

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 brings 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. We expect that there will be an adjustment to the purchase price based on OpenFive's actual cash, indebtedness and working capital on completion. Subject to agreement of the amount with SiFive Inc., we expect that the purchase price adjustment will be settled during the second half of 2023.

We have completed the purchase price allocation for OpenFive, except for possible amendment to consideration when the purchase price adjustment has been determined in line with the acquisition agreement and possible adjustments to deferred tax assets and liabilities. Consideration is yet to be confirmed as at the date of approval of the accounts and is expected to be determined during 2023. On that basis, we have 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.

Regarding deferred tax assets and liabilities, we have evaluated the costs and benefits of making an election under Section 338 of the US Internal Revenue Code of 1986, which would limit the historical US income tax liability that may otherwise be inherited in a taxable stock acquisition and also change the tax attributes inherited (including tax losses) and the deferred tax position. On 15 May 2023, we made a Section 338 election and we are currently awaiting the final calculations from the former owners of OpenFive to determine the impact of the election and any amounts payable to the former owners. For the purposes of our annual reporting, we have recorded a provisional deferred tax liability of US$15.9m, which will be updated following receipt of the final calculations.

Subsequent to its acquisition, OpenFive generated revenue of US$70,827,000 and a loss of US$11,717,000. If we had acquired OpenFive on 1 January 2022, we estimate that the Group's revenue for the year would have been US$75,847,000 higher and the Group's loss for the year would have been US$13,554,000 greater.

Acquisition of Banias Labs

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 has 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.

33 Business combinations continued

Acquisition of Banias Labs continued

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 cash on completion in respect of consideration of US$213,942,000, deferred cash rights of US$31,013,000 and 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 expect that there will be an adjustment to the purchase price based on Banias Labs' actual cash, indebtedness and working capital on completion. Subject to agreement with the vendors, we expect that the purchase price adjustment will be settled during the second half of 2023.

We funded the acquisition from existing cash balances and the proceeds of our recently obtained 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.

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 deferred consideration. We will recognise the balance of the fair value of the deferred cash rights as an employee compensation expense over their respective vesting periods.

Based on the vesting schedules of the deferred cash rights, we expect that the liability for deferred consideration will be settled over the period to August 2026.

Based on Banias Labs' actual cash, indebtedness and working capital on completion, we estimate that a purchase price adjustment of around US$250,000 will be payable to the vendors. Subject to agreement of the amount with the vendors, we expect that the purchase price adjustment will be settled during 2023.

We have completed the purchase price allocation, except for possible amendment to consideration when the purchase price adjustment has been determined in line with the acquisition agreement, as noted above. On that basis, we have 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 still under development, Banias Labs does not generate any revenue as yet. Subsequent to its acquisition, Banias Labs incurred a loss of US$481,000 that is included in the consolidated statement of comprehensive income. If we had acquired Banias Labs on 1 January 2022, we estimate that the Group's profit for the year would have been US$12,388,000 lower.

Assets acquired and liabilities assumed

We have allocated the purchase consideration to the identifiable assets and liabilities of the businesses acquired at their respective acquisition dates and goodwill as follows, based on their fair values:

	Precise-ITC US$'000	OpenFive (provisional) US$'000	Banias Labs (provisional) US$'000	Total US$'000
Assets acquired				
Cash and cash equivalents	803	14,503	9,131	24,437
Trade and other receivables	269	26,014	1,256	27,539
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 (subtotal)	7,800	62,373	83,900	154,073
Property, plant and equipment	52	813	1,702	2,567
Other assets	—	1,667	1,119	2,786
Total assets acquired	8,924	120,041	97,108	226,073
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)	(15,860)	(13,613)	(31,094)
Other liabilities	—	(1,538)	(5,261)	(6,799)
Total liabilities	(2,811)	(98,563)	(20,947)	(122,321)
Net identifiable assets acquired	6,113	21,478	76,161	103,752
Goodwill arising on acquisition	3,097	182,158	146,585	331,840
Consideration	9,210	203,636	222,746	435,592
Purchase consideration was as follows:				
Cash paid on completion	8,470	203,636	213,942	426,048
Purchase price adjustment	—	—	—	—
Deferred consideration	—	—	8,804	8,804
Contingent consideration	740	—	—	740
Consideration	9,210	203,636	222,746	435,592

The Group engaged qualified external experts to support the identification and measurement of the identifiable assets acquired and liabilities assumed. The intangible assets acquired that qualified for recognition separately from goodwill were technology/IP, customer relationships and third-party IP licences. The fair values of the acquired technology and IP intangible assets were determined using the multi-period excess earnings method (MEEM), the fair value of the customer relationships intangible asset was determined using the MEEM and the fair value of the third-party IP licences was determined 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 expects all of the contractual cash flows from trade and other receivables to be collected.

None of the goodwill recognised on business combinations completed during 2022 is deductible for tax purposes.

During 2022, we incurred acquisition-related costs of US$16,973,000 (2021: US$533,000) (included in other operating expenses in the consolidated statement of comprehensive income).

33 Business combinations continued

Cash flows in relation to business combinations

During the years ended 31 December 2022 and 2021, the net cash outflow on the purchase of businesses was as follows:

	2022 US$'000	2021 US$'000
Cash paid on completion	426,048	–
Purchase price adjustment	–	–
Deferred consideration	8,804	–
Consideration paid	**434,852**	–
Cash and cash equivalents acquired	(24,437)	–
Cash outflow on purchase of businesses, net of cash acquired	**410,415**	–

34 Notes supporting the consolidated statement of cash flows

	Group 31 December 2022 US$'000	Group 31 December 2021 US$'000	Company 31 December 2022 US$'000	Company 31 December 2022 US$'000
Cash at bank and in hand	186,231	500,964	125,729	463,360

There are no other significant amounts of cash and cash equivalents that are held by the Group that are not available to the Group.

Movements in the Group's loans and borrowings have been analysed below.

	Non-current loans and borrowings US$'000	Current loans and borrowings US$'000	Total US$'000
At 1 January 2022	–	–	–
Financing cash flows	203,750	5,000	208,750
Non-cash flows	1,451	–	1,451
At 31 December 2022	**205,201**	**5,000**	**210,201**

	Non-current loans and borrowings US$'000	Current loans and borrowings US$'000	Total US$'000
At 1 January 2021	27	27	54
Financing cash flows	(27)	(27)	(54)
Non-cash flows	–	–	–
At 31 December 2021	–	–	–

35 Events after the reporting period

On 17 April 2023, the Group invested US$2.7m into its joint venture, WiseWave, as part of the final tranche of a previously approved investment round. The total amount invested was US$6.4m, of which Wise Road Capital contributed the balance of US$3.7m.

Appendix

TCFD Compliance Table

Disclosure	Response
Governance	
a. Describe the board's oversight of climate-related risks and opportunities.	Page 42; Governance – page 46
b. Describe management's role in assessing and managing climate-related risks and opportunities.	Governance – page 46
Strategy	
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 44-46
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 46 Strategy – page 47
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. As a first step, in 2023 we will evaluate additional requirements and associated costs to assess the resilience of the organisation under different climate-related scenarios.
Risk Management	
a. Describe the organisation's processes for identifying and assessing climate-related risks.	Risk Management – Page 44
b. Describe the organisation's processes for managing climate-related risks.	See Risks and Opportunities tables on pages 44-46
c. Describe how processes for identifying, assessing, and managing climate-related risks are integrated into the organisation's overall risk management.	Risk Management – Page 44
Metrics and Targets	
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 43
b. Disclose Scope 1, Scope 2, and if appropriate, Scope 3 greenhouse gas (GHG) emissions, and the related risks.	Table – Page 43
c. Describe the targets used by the organisation to manage climate-related risks and opportunities and performance against targets.	Metrics and Targets – Page 44

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 43, 2022 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. For 2023, we plan to fully offset our Scope 1 and 2 greenhouse gas emissions through the purchase of RECs or carbon offsetting. We will develop the depth of our TCFD disclosure over time.	Pages 43 and 44, 2022 Annual Report
Energy Management in Manufacturing	TC-SC-130a.1	(1) Total energy consumed, (2) percentage grid electricity, (3) percentage renewable	Gigajoules (GJ), Percentage (%)	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. Energy consumed in our office buildings is reported on page 43 of this report.
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 (%)	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. Index only.

SASB Topic	SASB Code	SASB Accounting Metric	Disclosure Details	Page Number of URL
Waste Management	TC-SC-150a.1	Amount of hazardous waste from manufacturing, 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 employees 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 2022, 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 are (1) foreign nationals and (2) located offshore	Percentage (%)	In 2022, our engineers were mainly located in India, Canada, US and Israel. For the purpose of this table we consider India, Israel and APAC (including China) offshore locations. 45% of employees located in North America; 44% of employees located in India; 7% of employees located in Israel; 2% of employees located in APAC; 1% of employees located in UK. The Company does not track the % of employees who are not Canadian or US citizens.
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.

Appendix continued

SASB Table continued

SASB Topic	SASB Code	SASB Accounting Metric	Disclosure Details	Page Number of URL
	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 49 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 2022, there were no legal proceedings associated with anti-competitive behaviour regulations. Index only.
Recruiting & Managing a Global & Skilled Workforce	TC-SI-330a.2.	Employee engagement as a percentage	Percentage (%)	80% response rate to our first employee survey (August 2022). The survey was conducted by Best Places to Work in Canada, the US and the UK (before acquisitions expanded footprint to India and Israel).

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Financial calendar 2023-2024

2022 Full-year results	28 April 2023
Q1 2023 Trading Statement	28 April 2023
Annual General Meeting	22 June 2023
Q2 2023 Trading Statement	w/c 17 July 2023
2023 Half-year results	*w/c 25 September 2023
Q3 2023 Trading Statement	*w/c 16 October 2023
Q4 2023 Trading Statement	*w/c 15 January 2024

* Provisional dates

Shareholder enquiries
Our registrars will be pleased to deal with any questions regarding your shareholdings (see contact details above). 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
ASIC	application-specific integrated circuit (or system on chip (SOC)) that integrates all or most components of a computer or other electronic system
CAD	Canadian dollars
CEO	President & Chief Executive Officer
CFO	Chief Financial Officer
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
Company	Alphawave IP Group plc
DSP	digital signal processing capabilities, enabled to perform a wide variety of signal processing operations
Form factor	design aspect that defines and prescribes the size, shape and other physical specifications of hardware components
Gb	gigabyte, which is equivalent to 1,000,000,000 bytes
GBP	Pounds sterling
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
IP/silicon IP	intellectual property core, IP core, or IP block is a reusable unit of logic, cell or integrated circuit layout design
NED	Non-Executive Director
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)
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
PCIe	PCI-Express, a high-speed serial computer expansion bus standard
R&D	Research and Development
RSU	Restricted stock unit
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
SoC	system on chip (or ASIC) that integrates all or most components of a computer or other electronic system
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

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