
















sopheon

2022 Annual Report

Empowering organizations to change the world™

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InnovationOps drives innovation at scale

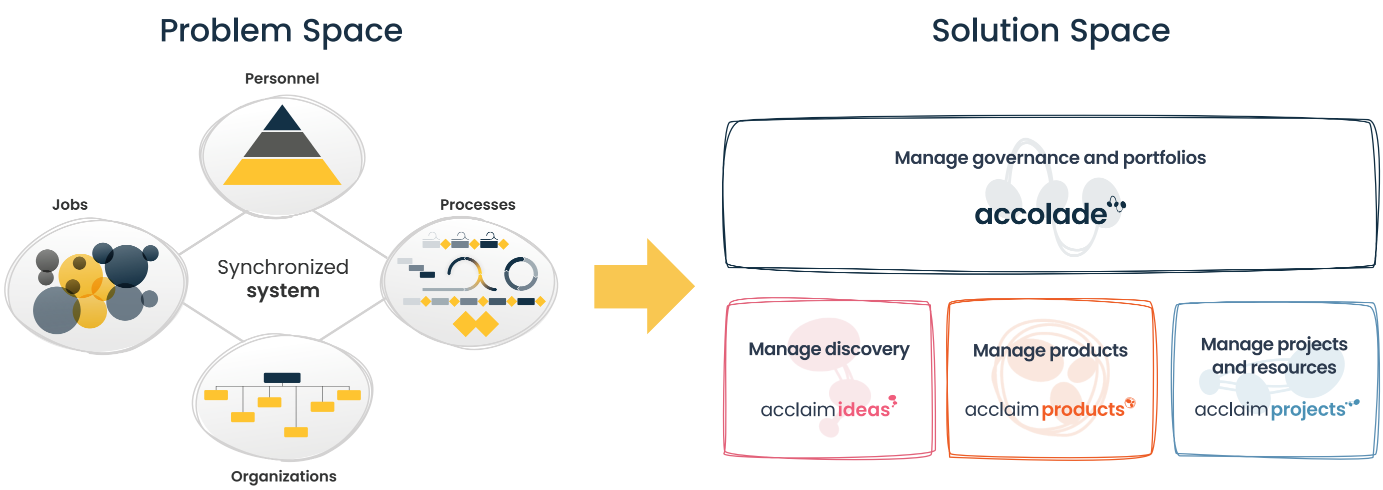
Innovation is critical for organizations to grow revenue and profitability, increase competitiveness, adapt to marketplace changes, and increase productivity.

Yet many organizations are challenged with innovating predictably, achieving alignment, and taking innovations through their lifecycle, from strategic intent to discovery through their end of life. Companies need a synchronized system that keeps them coordinated as they drive innovation.

Driving innovation at scale requires four areas to come together:

- A full range of innovation management disciplines
- A common set of processes
- A coordinated hierarchy of personnel
- An involved organization

InnovationOps ensures everyone is operating in a consistent manner.



What is InnovationOps?

It's a combination of cultural philosophies, practices, people, and software that increases an organization's ability to deliver innovation at high velocity while lowering risk.

How Sopheon delivers

We've helped companies innovate for more than 20 years. Sopheon offers a full range of InnovationOps products and expertise that empowers executives, leaders, and team members to successfully drive innovation and new product development in their businesses.

Sopheon customers report achieving these key results:

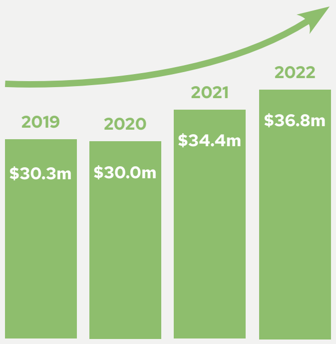
30% faster time-to-market

50% more successful product initiatives

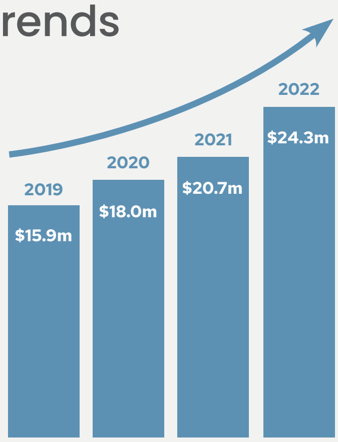
20% savings in efficiency

75% increase in portfolio value

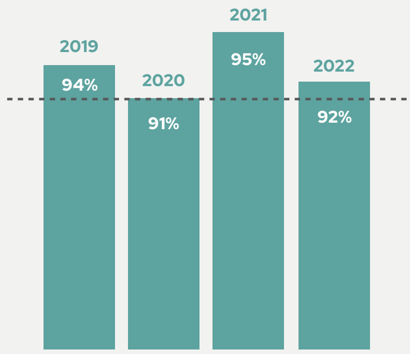
Summary results and trends



Revenue

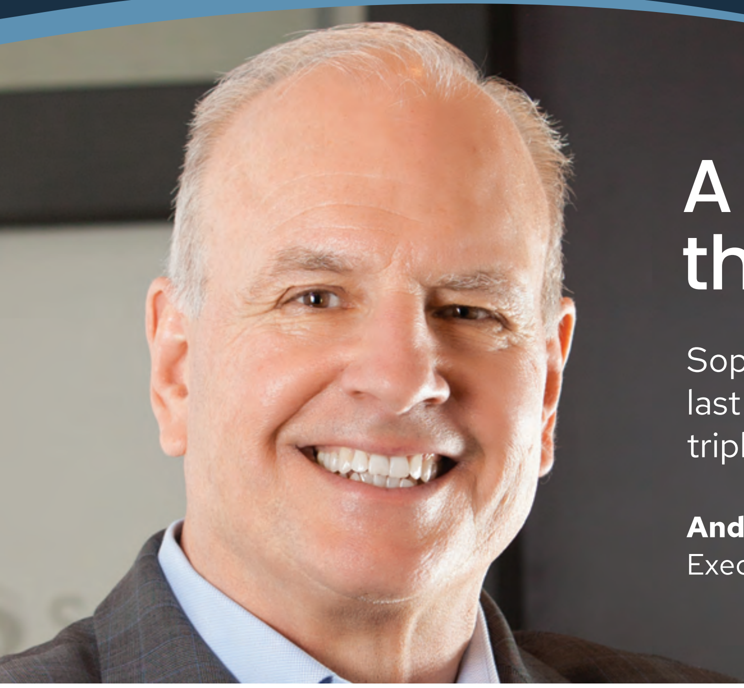


ARR



Gross retention*

** Across all SaaS companies, median gross retention is 91 percent. Source: SaaS Capital Insights Research Brief 26: Retention, Q1 2022.*



A message from the chairman

Sopheon delivered solid growth with record ARR last year, and acquisitions and new products tripled our multi-billion-dollar addressable market.

Andy Michuda
Executive Chairman

The global economy entered tremendous turmoil in 2022 with conflict, inflation and stagnation. In this chaotic environment, all companies face an accelerating and insatiable demand to deliver innovation – the products and experiences that delight customers, drive revenues and loyalty, and secure market share.

In one of the most chaotic business environments I've seen in my career, the opportunity for Sopheon has never been greater. Our InnovationOps software reduces the chaos and inefficiencies of innovation operations, harmonizing the discovery, design and delivery of new products and services. Our customers increase the speed, and reduce the risks and costs, of bringing innovative products to market. The very products that expand market opportunities and modernize brands for the future.

Sopheon exited 2022 with two successful acquisitions and grew from a single product company to a family of four products, tripling Sopheon's addressable market to almost $3 billion[1]. Sopheon's combined family of InnovationOps solutions offer a compelling and unique value proposition for companies: automate and provide a single source of truth to eliminate the innovation stalls, stumbles and failures that are completely avoidable in even the most chaotic of times.

Our financial performance illustrates the initial success of our efforts. Annual recurring revenue (ARR[2]) increased 17.4 percent to $24.3m (2022) compared to $20.7m (2021). Top line revenue rose to $36.8m compared to $34.4m in 2021. At constant currency, revenue would have exceeded $38m, representing 10 percent organic growth. Total contract value ("TCV") of all sales closed in the year exceeded $30m, up 35 percent year over year – with the exceptional outperformance attributable to signing the largest single deal in our history with the US Navy. Adjusted EBITDA[3] improved by almost 12 percent, rising to $6.9m (2022: $6.2m) while taking a $1.6m write down in respect of technology investments superseded by the acquisitions.

More than 90 percent of our new customers signed SaaS contracts in 2022, and our installed base continues to convert from perpetual to SaaS subscriptions. We intend to sell all new customers on a SaaS basis and continue converting existing customers to this model. Although we expect perpetual license sales to fall in 2023 and 2024, this will be offset by growth in ARR. This will naturally slow revenue and profit development in 2023 but is expected to accelerate more predictable ARR growth in subsequent years. We expect this to come through clearly as we enter 2024, delivering higher growth and profitability from that point forward.

Doug Collins, Managing Consultant

[1] *Markets and Markets Innovation Management Market Analysis, Global Forecast to 2026; Verified Market Research Global Idea Management Software Market Size By Product, By Application, Forecast to 2027; Verified Market Research Global Product Management and Roadmapping Tool Professional Survey Report 2022, Forecast to 2027; Mordor Intelligence, Project Management Software Market 2021 – 2027.*

[2] *ARR is the annual value of all ongoing contracts for SaaS, hosting and maintenance in force at the measurement date including pending renewals but excluding confirmed terminations.*

[3] *Adjusted EBITDA is defined in Note 5.*

Our ambition is for Sopheon to then double run-rate revenue every three to four years, with world class margin and retention metrics. This will require a contribution from acquisitions, on top of accelerated organic growth, plus constant improvements in structure, policies, processes, and systems. A proactive acquisition strategy will continue to add earnings-enhancing benefits to investors, but also product depth and breadth as Sopheon moves into a phase of controlled and sustainable growth.

We have an incredible team of employees, and you'll see many of them in this report. Our SaaS solution revenue continues to grow, and our balance sheet remains very strong to fuel additional acquisition and investment. Our recent appointment of Barney Kent, former COO of Ideagen plc, as a non-executive Director underlines our commitment to both organic growth and M&A activities.

We start 2023 with a strong foundation of ARR, a stable of new products, and a growing sales pipeline. I look ahead with both excitement and confidence, anticipating continued delivery this year alongside rising velocity in our business.

Approved by the board and signed on its behalf by:

Andy Michuda
Executive Chairman
22 March 2023

I look ahead with both excitement and confidence, anticipating continued delivery this year alongside rising velocity in our business.

Executive Leadership Team

Front row: Greg Coticchia, Chief Executive Officer; Mark Meakins, Vice President, Infrastructure; Heather MacIntosh, Chief Marketing Officer; Arif Karimjee, Chief Financial Officer; Mike Bauer, Chief Product Officer; Derald Kopren, Vice President, Global Presales.

Back row: John Beischer, Senior Vice President, Sales, Americas; Peter Loerincs, Vice President, Enterprise; Andy Michuda, Executive Chairman; Steve Alexander, Vice President, Global Consulting; Pieter Leijten, Vice President, Sales, EMEA.

Chief executive statement

Sopheon's differentiated family of software and services enables companies to deploy InnovationOps across the organization with a synchronized system to deliver innovation at scale.

Greg Coticchia
CEO

A year of progress and resilience

2022 was a year of demonstrated resilience and accomplishment for Sopheon. The company significantly advanced many of the key aspects of its business. Internally, we continued to deliver against our stated plans to expand our products and services, through both acquisition and organically, while significantly progressing to become an enterprise SaaS/cloud company focused on innovation management and product development. The company also responded well to the many external global impacts: the 'Great Resignation' in which companies globally felt the impact of increased departure rates in the wake of the COVID-19 pandemic; the Russian-Ukraine War and its effects commercially; customers who experienced major supply-chain chokepoints; climate-exacerbated natural disasters and political upheavals in many countries where we do business; and the significant rise of inflation after 40 years at rest.

Despite these challenges, throughout 2022 Sopheon stayed committed and focused on our strategy and goals. We continued to deliver value to our existing blue-chip customers and added new premium customers globally. Companies continued to invest in innovation products and processes to deliver on their goals of growth, efficiency, productivity, and competitiveness. As a result, Sopheon delivered on both growth and profitability with a significant increase in ARR and adjusted EBITDA, exceeding expectations. These impressive financial results were achieved alongside major strategic accomplishments. We launched three new products – two derived from acquisitions absorbed in the year, and the third developed organically. This enabled us to expand our end-to-end capability to operationalize innovation, offering immediate value to both corporate executives as well as their supporting cross-functional teams. We call this InnovationOps which is described further below. As a business that has focused on the business of innovation since our start, Sopheon is uniquely positioned to deliver on the promise of InnovationOps.

During the year we continued several key themes that I outlined in our 2021 annual report:

Growth: We exceeded our goals for both ARR and adjusted EBITDA growth while achieving 7 percent revenue growth.

More: We added to our family of products and services through both acquisition and internal development. Two acquisitions and new internally developed products and services help us deliver more value to current customers and serve new customers in a significantly expanded addressable market.

Aaron Slater, Acclaim Marketing Manager; Charlie Widdows, Acclaim Business Development Manager; Peter Vickers, Brand and UX Designer (aka The Bristol Boys)

Speed: We improved our product development velocity and decreased time to value for new customers.

Visibility: Increased investment is paying dividends as we are becoming better-known in our primary market and as we expand into new markets with a broadened product set.

People: We have kept a substantial number of long-standing key contributors while attracting new talent in all areas of the company.

Benji Pollock, Consultant; Zachary Gioia, Account Executive; Kelly Cusack, Account Executive

How were we able to achieve these results?

- ***Focused on SaaS/cloud sales of our flagship product Accolade.*** Our global sales and services teams targeted existing on-premise customers to move to our cloud offering. Generally, this is mutually beneficial, as most enterprises have preferred cloud hosting and the SaaS model since 2016. This transition to SaaS/cloud increases predictability of revenues, offers better growth potential and delivers greater lifetime value to displace acquisition costs. Ultimately, this is about better quality of revenue overall, and is reflected in our 17.5 percent increase in ARR. Thirteen existing Accolade customers moved to a SaaS model, and most Accolade customers are now SaaS or cloud hosted. All new products introduced in 2022 – Acclaim Ideas, Acclaim Products and Acclaim Projects – are native multi-tenant SaaS offerings.
- ***Broadened our offerings through acquisition and internal development.*** Throughout 2022, we filled out our portfolio of products which was critical for us strategically and competitively. Accolade continues to offer unique, differentiated value to customers looking to add needed governance to their innovation processes, manage their strategy/execution processes, and maximize value from their portfolio of products. As we committed to in 2021, we wanted to expand value for our current clients and gain new customers through multiple market offerings. We achieved that in 2022. With the acquisition of ROI Blueprints, now Acclaim Projects, we address a long-standing competitive opportunity that lets us deepen our relationship with existing customers and win more net new business. With Acclaim Ideas, formerly Solverboard, we address another long-standing market need of managing the discovery process at the front end of innovation. This allows us access to more prospects earlier in their innovation journey. Finally, with Acclaim Products we address an enormous complementary market in product management, a role often responsible for innovation initiatives. For the first time, we have an offering for product managers as individuals. The Acclaim product family provides Sopheon a new and differentiated go to market in 2023.
- ***Introduced new pricing models.*** Continuing to modernize our business practices, we simplified our pricing to allow easier selection and consumption of our Accolade and Acclaim Projects software, streamlining the buying journey and easing sales processes. We also introduced usage-based pricing, a consumption-based pricing model in which customers are charged to the extent they use a product or service, rather than on an arbitrary number of individual users. Our new models are based on the number of products or projects a customer manages and have proved popular for customers who want to reduce surprises associated with user-based pricing. In addition, for Acclaim Products and Acclaim Ideas product-led software, we display our pricing on our website and allow online purchasing. Today's B2B buyer is habituated to transparency. Most buyers want to understand price as part of their self-discovery journey, and as a result we want to have a frictionless experience for these end-user offerings.
- ***Strengthened executive leadership.*** We strengthened our leadership in two key areas: product development and marketing. During 2022 we added Peter Loerincs to head software development and Heather MacIntosh as our Chief Marketing Officer. Peter has held many roles in his successful career: he has been a software consultant, developer, development manager, leader of product management and development, solution architect and business consultant, with much of this experience directly related to the New Product Development (NPD) and Innovation space we serve. And different from many in engineering or development roles, he has been customer-facing, and with some of the most recognized companies globally. Similarly, Heather MacIntosh brings to the CMO role at Sopheon a diversity of career experience, including sales, business development, partner marketing, corporate marketing, product management and more. Heather has served in senior leadership roles most of her career, helping various technology organizations with complex offerings successfully scale their businesses.

- ***Continued customer centricity.*** As a company, Sopheon values three attributes: entrepreneurial innovation, team empowerment, and customer enthusiasm. In this last pillar of our values, customer service plays a critical role, especially as we continue to move to a SaaS/cloud organization. SaaS customers can switch more easily to competitive offerings, and it is only through customer success that retention and expansion can occur. In 2022, we achieved a Net Promoter Score of 34, which is in the "great" zone and well within industry norms. Sopheon had a Net Retention rate of 112 percent, indicating growth above the 100 percent industry median. In addition, we achieved a Gross Retention Rate (GRR)[1] of 92 percent compared to an industry benchmark of 91 percent[2]. Organizationally, we have moved all our post-sales activities including consulting, services support, and success under one roof with one leader, for a seamless and optimized customer journey.

Sopheon succeeded in 2022 despite the challenges we faced externally and the continued changes we made internally. We did this by being disciplined and staying focused on executing our stated strategy. As the great management consultant Peter Drucker stated, ***"The best way to predict the future is to create it."*** Sopheon continued to create that future in 2022 and has built a foundation for future success as it goes to market in 2023 with new products, new services, experienced leadership, flexible pricing models, and new go to market execution.

Marisa DiNunno, Customer Success Manager; Nancy Green, Account Executive; Stacy Rossetti, Senior Business Development Solutions Architect; Deanne Kulke, Senior Director of Strategic Accounts

Why is successful innovation elusive?

As the external forces we saw in 2022 continue and market focus returns to profitable growth, innovation and new product development are even more important for long-term competitiveness and financial performance. However, after decades of organizational attention, and with global R&D spending reaching $2.47 trillion in 2022[2], the following sad truths remain:

- 40-50 percent of innovation and new product initiatives fail[4]
- 90 percent of executives are disappointed with their company's innovation performance[5].

The late Clayton Christensen, who was known for his focus on innovation as a business consultant and academic, wrote in his book, *The Innovator's Solution*:

"More than 60 percent of all new product development efforts are scuttled before they ever reach the market. Of the 40 percent that do see the light of day, 40 percent fail to become profitable and are withdrawn from the market."

Mike Bauer, Chief Product Officer

This means that 76 percent of all NPD efforts fail to make it to market or become profitable. Similar findings underscore the same level of risk and failure in innovation. Companies waste a lot of resources and effort for little or no return. With companies facing an economic crisis caused by a global pandemic, any failure rate above 50 percent is just not acceptable. So, if a company wants to navigate the crisis and emerge stronger, what should they do? How can they minimize their failure rate?

And most importantly, why does this continue to be a real, consistent, and significant problem that must be addressed by businesses that value innovation and its benefits of growth, efficiency and profitability?

In a recent best practice report, the Product Development Management Association (PDMA) points to what makes innovation difficult to achieve: ***"Firms must continually evolve their new product development (NPD) capabilities just to 'stay in the game' as the business and technology***

[1] *GRR (Gross Revenue Retention) is the percentage of ARR retained at the end of the year from the customer base at the start of the year, not counting revenue from new customers, upsells or price increases. Source: SaaS Capital Insights Research Brief 26: Retention, Q1 2022*

[2] *Statista: Total global R&D spending 1996-2022*

[3] *George Castellion & Stephen K. Markham, Journal of Product Innovation & Management pp. 976-979 (2013)*

[4] *McKinsey & Company, Global Innovation Survey*

[5] *IDC: Worldwide Spending on ESG Business Services Is Forecast to Reach $158 Billion in 2025, According to IDC*

environments change. No one single practice is required for greater innovation performance. Rather, the best firms are better at employing and skillfully combining a variety of NPD capabilities and practices."

We agree with PDMA's point of view and see organizations still struggle with challenges that cause chaos and prevent them from achieving their innovation goals. The following challenges waste trillions of dollars a year in investment and shareholder value:

- Organizational misalignment
- Disconnected efforts
- Strategy not driving execution down to the individual team member
- Ad hoc tools
- Limited governance to responsibly manage business and commercial risk

Adding to the challenge of successful innovation are three current market trends that continue to have a profound effect on companies. These trends make it even more difficult for companies to reign in the turmoil and get their innovation and product programs on the right track:

Digitalization

Digital transformation is essential if businesses want to remain relevant, competitive, and productive in an age defined by technology and data. Digital transformation is not a one-time event. It's an ongoing process – a constant tweaking, fine-tuning, upgrading, and adapting over extended periods of time. This has been going on for years, with the COVID-19 pandemic escalating the pace. We see this consistently with Sopheon prospects, who in many cases, are still using manual processes with spreadsheets supported by islands of digitized data and disconnected individual processes, and who want to automate these processes to improve innovation outcomes.

"I am proud to be part of the team that helps Sappi drive organizational change and maximize innovation outcomes. With Sopheon, Sappi can now confidently and consistently tie strategy, execution, and governance together to ensure sustainability and their customer is at the forefront of their innovation and R&D initiatives."

Danny Schuurman
Account Executive

Sustainability

In the last decade, competitive and consumer demands have moved sustainability – the requirement to meet our own needs without compromising the ability of future generations to meet theirs – from a nice to have to a corporate imperative with a spend of over $58 billion[5]. Corporations large and small in every industry continue to look for simple, practical ways to show the attention being given to this topic. Infusing sustainability has forced a change to the way companies think about products, technologies, processes, and business models and has added to the chaos in achieving predictable and repeatable corporate innovation.

Phil Atherton,
General Manager, Acclaim

Continuous evolution of customer needs

Software continues to eat the world. It's ubiquitous – so much so that it has spawned a new word, "phygital", to describe the integration between the physical and digital worlds. This has radically changed the expectations of people who both use and buy products, not only for consumers but also corporate users across the spectrum. For companies across all industries and sizes, it adds a new dimension to how they innovate and bring products, services, and innovations to market.

Despite the chaos, predictable and repeatable innovation is not an oxymoron. Sopheon has been working with clients of all sizes and across a wide range of industries over the last 20 years to address the turbulence, including helping them to successfully embrace these current market trends.

The road ahead

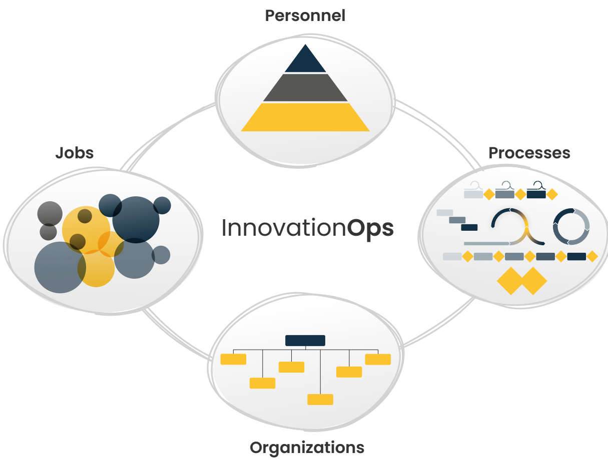
Companies are realizing that managing innovation, mandating innovation, or separating innovation into a stand-alone group doesn't generate the breakthrough to incremental innovations needed for long term growth and profitability. They see that in leading corporations like 3M, Hershey and Honeywell, innovation permeates all parts of the organization. To achieve this, companies must learn what it takes to operationalize innovation, just as they have learned from the success of software development and product management organizations as they operationalize their environments through DevOps and ProductOps. Companies see that those same principles can be applied to Innovation through InnovationOps.

The innovation market defines InnovationOps as:

> The combination of cultural philosophies, practices, people, and tools that increase an organization's ability to deliver innovation at scale.

For decades, we have been saying that, to perform innovation at scale, an organization must operationalize innovation by bringing together the following three areas:

- The people – from team members to executives – across the organization
- The tasks that the people perform across the organization
- The processes that people performing tasks use to ensure repeatability and predictability



As a result of Sopheon's investment over the past several years, we have rolled out a differentiated family of software and services that enables companies to deploy InnovationOps across the organization and enables the synchronized system to deliver innovation at scale.

Each offering is focused on specific innovation tasks that, when brought together with the people and processes across the organization, make InnovationOps a reality.

These essential tasks are to:

- **Manage strategy, portfolio, and governance**

  Driving innovation at scale means constantly placing "bets" and then understanding the performance of those bets over time. Executives and leaders need to do this in a predictable and controlled way.

- **Manage discovery**

  Determining whether an innovation is a radical breakthrough or an incremental discovery – that's often the starting point when deciding what to bring to market. Discovery is more than idea collection and management, which is a common misconception.

- **Manage products**

  Product innovation people have a large responsibility to identify the right levers and when to pull them to drive their product's success.

- **Mange projects and resources**

  The many projects necessary to move a product or innovation from ideation to launch and growth creates a tapestry of complexity.

From individual team members to the CEO, we cover the full spectrum of the tasks that product, innovation, and project professionals must accomplish to drive innovation across their companies. And the result? For any company that values their investment in innovation, Sopheon can provide all the benefits of InnovationOps: a set of products, that together, creates efficiency that in turn gives innovators better visibility to mitigate uncertainty, reduce risk and make better decisions. It's the essence of the benefit Sopheon has delivered for years with Accolade and that is now extended through our new Acclaim offerings.

So, let's go back to where I started – innovation results are elusive. Failure rates are unacceptably high. And it is that way for so many industries. But it doesn't have to be. And while there is no 'silver bullet' that eliminates all the uncertainty or risk, with InnovationOps, we can help companies greatly improve their results.

Any innovation involves a leap into the unknowable. That's whether it's an incremental innovation such as new product enhancement or feature, or disruptive innovation such as a never seen before capability brought to market. That unknown – and the risk associated with innovation – is a fact any company needs to accept and to manage if they want to stay competitive and grow. But the riskiness of an innovation depends on the choices organizations make, and the more informed and conscious their choices are, the lower the risk will be. Sopheon's product set and associated services allow for those better decisions. That's a bet worth taking and that all the blue-chip customers of Sopheon have already taken. Each has benefitted in their innovation

Ana Afonso, Solutions Consultant; Steve Alexander, Vice President, Global Consulting

investments. We help customers make better decisions, reducing the unknowable risk and uncertainty associated with it.

Nigel Cordery, Account Executive; Pieter Leijten, Vice President, Sales, EMEA

Sopheon does not differ from our customers. We have also recognized the trends that affect our business. And we too want to continue to be more competitive and grow. And so, we have made investments in the last two years in our own company offerings and business model to meet the demands of the growing marketplace in which we compete. As a result, this last year we launched a new SaaS product, completed two SaaS acquisitions, and created new ways to deliver value, and more. We didn't just make an investment in these innovations – they are already producing results as evidenced in this report – forming the foundation of our InnovationOps strategy.

With InnovationOps we will deliver the solutions our customers, specifically innovation and product people, need to succeed by giving them the ability to make better decisions. Our integrated SaaS products combined with our deep innovation expertise, will uniquely help the customers that choose Sopheon as they take risks to change the world through innovation. Armed with this, we remain confident in our growth trajectory, working passionately to seize the unique market opportunities ahead.

Approved by the board and signed on its behalf by:

Greg Coticchia
CEO
22 March 2023

Financial report

The Board considers ARR as the driver for long term growth and shareholder value, and therefore this is our primary growth metric and focus.

Arif Karimjee
CFO

Sopheon delivered both strategic and financial progress in 2022, in the face of tough global economic conditions as well as the short-term pressure from our own strategy to migrate our business model to a more recurring revenue basis for higher growth and predictability in future. The Board considers ARR as the driver for long term growth and shareholder value, and therefore this is our primary growth metric and focus. Revenue recognition timing differences between recurring and perpetual license sales inevitably means revenue and profit are compressed in the short term, but contribute stronger and more predictable performance in the medium term as the book of ARR builds and improves forward visibility. 2022 saw an acceleration in ARR growth, including 13 existing perpetual customers converting to a SaaS model.

Following are the key financial performance indicators which we prioritize and track to run the business to achieve our stated business strategy. We are pleased with the positive development in these metrics, and I discuss them in more detail in the rest of my report.

	2022	2021	2020
Annual Recurring Revenue ("ARR") at year end	$24.3m	$20.7m	$18.0m
ARR growth year over year	17.4%	14.7%	13.8%
Gross Revenue Retention[1] ("GRR") for the year	92%	95%	91%
Net Revenue Retention[1] ("NRR") for the year	112%	108%	103%
Reported revenue	$36.8m	$34.4m	$30.0m
New customer signings	16	10	10
Total Contract Value ("TCV") signed in the year	$30.1m	$22.2m	$21.2m
SaaS TCV signed in the year	$12.7m	$7.6m	$6.6m
Gross margin	75%	73%	70%
Adjusted EBITDA	$6.9m	$6.2m	$5.9m
Cash (utilization)/generation before financing activities	($0.9m)	$3.9m	$2.6m
Cash at year end	$21.1m	$24.2m	$21.7m

Revenue metrics above are focused on our corporate software business, which in 2022 was primarily Accolade and associated consulting. TCV metrics quoted above include first year maintenance only for perpetual transactions, but the full multi-year committed value of any SaaS transactions. It is important to note the significant impact of the very large order with the US Navy, discussed further below, on TCV performance in 2022.

[1] *Gross Revenue Retention (GRR), which we have reported for many years, is the percentage of ARR retained at the end of the year from the customer base at the start of the year, not counting revenue from new customers, upsells or price increases. Net Revenue Retention (NRR) is the percentage of ARR retained at the end of the year from the customer base at the start of the year, not counting revenue from new customers but including upsells and price increases. With GRR, the focus is on how well a business retains customers. With NRR, the focus is on how well it upsells those customers.*

Trading performance

Overall revenue on a constant currency basis grew to $38.1m (2021: $34.4m). Due to strong US dollar appreciation against other currencies, our reported revenues were $36.8m. As set out in note 4 to the financial statements, this comprises $5.5m of perpetual license (2021: $3.9m), $8.8m of consulting services (2021: $10.4m) and $22.5m of recurring SaaS and maintenance (2021: $20.0m). A comparatively quiet year for consulting following delivery of a substantial deployment with LG in 2021, this was almost exactly offset by a stronger perpetual performance, largely driven by a contract signed with the US Navy. These events disguise the very real operational progress that is demonstrated by the growth in the recurring line and more importantly by the very strong growth in ARR by year end.

The US Navy is structured as an enterprise perpetual license together with long term maintenance and consulting commitments, with the payment profile spread evenly across the five–year period. Of the total deal value, approximately $4.1m was recognized as perpetual license fees in 2022 and the majority of this amount remains in receivables. A further $4.1m of maintenance, $2.7m of consulting and $0.3m of notional interest will be recognized over the five-year period. Even if the US Navy order were excluded, total TCV booked matched the previous year and the amount of SaaS nearly doubled. Our strategy is to accelerate and deepen this trend and, looking forward, we intend that all new license sales will be SaaS where possible. Conversions to SaaS increasingly include customers that already use Sopheon for hosting, who wish to access new SaaS only solutions such as Acclaim Projects, or to access new pricing models. In most cases, such orders are accompanied by an uplift in ARR as the customers expand the footprint of our software in their business. During the year, 13 customers moved from perpetual to SaaS, compared to six in 2021 and four in 2020. This pattern is underlined by the steady improvement in our NRR metric, which we are exposing for the first time this year.

A 2022 report by SaaS Capital[2] indicates that median GRR and NRR for B2B vendors selling larger ticket enterprise software are 95 percent and 105 percent respectively. Sopheon performs well on both counts and shows a rising NRR trend, key to future growth dynamics.

Product, seasonality and geography

We continue to expect the sensitivity of revenue to calendarization to come down as our recurring revenue rises more steeply. However, due to the impact of the US Navy perpetual transaction this was not the case in 2022, with the second half of the year accounting for 58 percent of revenues (2021: 52 percent and 2020: 54 percent).

Revenues to customers in our core markets of North America and Europe, addressed by our direct sales teams, were 68 percent and 28 percent of total respectively (2021: 60 percent and 31 percent) again reflecting the impact of the Navy transaction. After relatively strong years for perpetual and consulting business in the Asia-Pacific region in 2020 and 2021, revenues outside our core regions fell back to 4 percent (2021: 9 percent). Our activities in the Pacific region continue to be managed through partnership channels. The revenue performance disguises some new SaaS signings in the territory, and we believe this region represents a growth opportunity for Sopheon.

The vast majority of revenue continues to come from the Accolade solution. However, as noted in the Chairman's statement, Acclaim Projects was instrumental in concluding nine transactions in 2022, representing TCV signed in excess of $4m, and is playing a key role in our forward pipeline.

Gross margin

Gross margin was 75 percent, compared to 73 percent in 2020, itself an increase over the year before. Gross margin is calculated after deducting the cost of our consulting organization – both payroll and subcontracted; costs and charges associated with our hosting activities, some license royalties due to OEM partners and costs and credits relating to certain indirect taxes. As before, the change in margin last year was driven largely by the dynamics of our services organization. Lower revenues meant that consulting represents a smaller proportion of the overall margin mix; furthermore, not all departing staff were replaced.

Research and development expenditure

Headline R&D expense shows a large jump from $7.3m to $10.6m. However, this includes two non-operational items being (i) a $1.6m write down of previously capitalized costs, as further described below; and (ii) $0.6m in amortization of intangible assets added through the ROI Blueprints acquisition. Excluding these items, and factoring in the impact of capitalization, actual spend on R&D rose from $8.6m to $10.2m or from 25 percent to just under 28 percent of revenue. These are undoubtedly high by historic standards but reflect the major investment being made in the Acclaim product family alongside continuous improvements to Accolade as well as upward cost pressure. Average headcount in this area has remained broadly flat but has been supplemented extensively by subcontracted resources. Full details of capitalization and amortization of R&D expenses are described in Note 14.

Sopheon had embarked on the development of a next-generation platform for new cloud-based applications prior to our recent M&A transactions. In light of both acquisitions and other factors, the group revisited its original approach. As a consequence, a 100 percent impairment has been made against the capitalized costs associated with the cloud platform development, amounting to $1.6m, included in research and development expense and subtracted from adjusted EBITDA.

[2] *SaaS Capital Insights Research Brief 26: Retention, Q1 2022*

The amount of 2022 research and development expenditure that met the criteria of IAS 38 for capitalization was $5.2m (2021: $4.3m) offset by amortization charges of $3.4m (2021: $3.0m) and an impairment of $1.6m (2021: $nil). Capitalized costs in 2022 are largely attributable to the group's investment in the Accolade 14.2, 14.3, 15.0 and 15.1 versions, as well as the more nascent Acclaim solutions, in particular the former ROI Blueprints offering, Acclaim Projects, which has had a positive impact on sales performance as noted above.

Other operating costs

Staff costs continue to represent over 80 percent of our cost base. Sopheon has a relatively mature and highly qualified blend of staff, reflecting the professional and intellectual demands of our chosen market. We ended 2022 with 178 staff and 18 full time offshore subcontracting resources (2021: 167 and 18). In addition, further R&D offshoring was conducted on a project deliverable basis, mainly to support one of the Acclaim solutions. Salary pressures continued during 2022, and we experienced significant staff churn as the "Great Resignation" impacts continued. While this contributed to cost savings against plan, the majority of leavers were replaced by year end, and we have seen this pressure fall off as we closed the year. Average headcount for the year was 172 compared to 167 the year before. In 2021 we had modified the corporate bonus scheme applicable to all non-sales staff in the company, adding a material element of ARR goal to our historical focus on adjusted EBITDA; the ratio was increased in 2022, and was fully achieved. In spite of these upward pressures, compounded by increases in individual pay requirements in technical roles, staff costs were broadly flat year over year thanks mainly to the impact of the strong USD on the reported costs of our European employees.

Overall non-payroll costs increased by approximately $1m before exchange, interest, tax, and depreciation. There were three main components of the increase being travel and related costs, expanding marketing programs, and infrastructure costs associated with the SaaS migration and Acclaim investments.

Taking a functional view, specific comments regarding consulting operations and research and development costs are noted above. Overall costs in the sales and marketing area look flat on a headline basis but this would have shown an increase due to higher marketing program spend, were it not for strong USD rates. Administration costs – which include infrastructure costs – have reduced by approximately $0.5m. This area includes all other overheads, office costs, regulatory and compliance costs, depreciation, and operational exchange movements, as well as the full impact of the notional charge for share option grants, which is allocated entirely to this caption. The majority of the fall came from exchange gains in Sopheon plc arising from GBP weakness, as well as lower rental costs due to reduced office footprints, offset by higher infrastructure costs.

With regard to foreign exchange, historically the group has aimed to incorporate a natural hedge through broadly matching revenues and costs within common currency entities, reducing the need for active currency management. In recent years this has become somewhat less balanced as our cost base has become increasingly USD driven, while revenues remain roughly two thirds USD and one third EUR/GBP. This has led to a build-up of EUR balances pending a reversal of the current USD strength.

Jack Hamilton,
Senior Managing Consultant

Results and corporate tax

Adjusted EBITDA is a key indicator of the underlying performance of our business, commonly used in the technology sector. It is also a key metric for management and the financial analyst community. This measure is further defined and reconciled to profit before tax in Note 5. The combined effect of the revenue and cost performance discussed above has resulted in Sopheon's Adjusted EBITDA performance for 2022 rising to $6.9m, from $6.2m in 2021. The increase in profit before tax was more muted at just over $0.1m, due mainly to the incidence of higher amortization charges, rising to $1.3m (2021: $1.2m).

The tax charge of $2.2m (2021: $0.4m) reported in the income statement is made up of $1.9m (2021: $nil) of deferred tax movements arising mainly from the impact of legislation that has accelerated consumption of accumulated tax losses in the USA as further described in Note 10, and $0.3m (2021: $0.4m) of actual current tax. The movement in deferred tax has reduced the group's recognized deferred tax asset to $0.6m (2021: $2.6m) of a potential total asset of $8.9m (2021: $11.7m).

Altogether this leads to a loss after tax of $0.9m (2021: $0.8m profit). This has also resulted in loss per ordinary share on a fully diluted basis of 8.28 cents (2021: 7.47 cents profit).

Dividend

The board is pleased to maintain Sopheon's dividend at 3.25 pence per share for the year ended 31 December 2022 (2021: 3.25p). We believe this level strikes the right balance between a business going through a complex SaaS transition, while still delivering positive revenue growth, cash generation and balance sheet strength. Subject to approval by the company's shareholders at the annual general meeting scheduled for 8 June 2023, the dividend will be paid on 7 July 2023 with a record date of 9 June 2023.

Cash, facilities and assets

Net cash at 31 December 2022 amounted to $21.1m (2020: $24.2m). Approximately $4.7m was held in USD, $14.3m in EUR and $2.1m in GBP (2021: $5.6m, $15.4m and $3.2m respectively). The reduction in net cash is due to several factors:

a) Cash utilization before financing was $0.9m (2021: generation of $3.9m) primarily reflecting a significant increase in receivables due to two factors. The majority of this increase can be explained by the extended payment terms associated with the US Navy enterprise agreement leading to $3.6m being included within the $4.1m contract asset recorded within receivables, as detailed in note 17. Second, our recurring contract renewal dates concentrate in the final quarter of the year and the success in adding more SaaS agreements this year has further accentuated this issue, also leading to a higher trade receivable balance at year end than in the past.

b) Investing activities including M&A, capitalized development costs and equipment was $0.3m higher than the year before, and net financing costs including dividends, interest and share issue proceeds was $0.2m higher.

c) As noted above Sopheon holds considerable EUR as well as GBP cash balances, which due to currency movements, fell in value by approximately $1m in USD terms over the course of the year.

The group has no debt (excluding notional debt from the adoption of IFRS 16). However, we maintain our good relationships with our financing partners, with potential established for funding arrangements in connection with corporate activity if required.

Intangible assets stood at $13.1m (2021: $12.0m) at the end of the year. This includes (i) $8.3m being the net book value of capitalized research and development (2021: $8.1m) (ii) the net book value of acquired technology and IPR of $1.7m arising on the acquisition of ROIB (2021: $2.3m); and (iii) an additional $3.1m (2021: $1.6m) being goodwill arising on acquisitions, including $0.6m for ROIB arising in 2021 and $1.5m for Solverboard arising in 2022.

As stated above in our discussion of research and development costs, capitalization and amortization have historically been broadly in balance; however, recently capitalization has accelerated as we have expanded our range of product offerings, and amortization has yet to catch up. Nevertheless, due to the $1.6m impairment noted above booked against the capitalized costs associated with internal cloud platform development prior to our recent acquisitions, in 2022 the net total of capitalization, amortization and impairment was broadly in balance.

With respect to the acquisition of Solverboard, as detailed in Note 14 we have estimated approximately 29 percent of the contingent consideration will become payable during the earnout period, resulting in a total net acquisition cost being recorded of $1.5m which is all treated as goodwill.

As described in Note 1, IFRS 16 requires lessees to recognize a lease liability that reflects future lease payments and a "right-of-use asset" in all lease contracts within scope, with no distinction between financing and operating leases. This has resulted in net book value of right-of-use assets of $0.5m (2021: $0.8m) and corresponding lease liabilities of $0.5m (2021: $0.8m) at 31 December 2021. Notional amortization and interest charges in connection with the above recognized in the income statement were approximately $0.5m (2021: $0.7m).

Consolidated net assets at the end of the year stood at $29.6m (2021: $31.3m), a decrease of $1.7m and including net current assets of $15.6m (2021: $15.7m).

Approved by the board and signed on its behalf by:

Arif Karimjee
CFO

22 March 2023

Directors and advisors

Directors	Andrew L. Michuda	Executive Chairman
	Gregory M. Coticchia	Chief Executive Officer
	Arif Karimjee ACA	Chief Financial Officer
	Barry K. Mence	Non-executive Director
	Stuart A. Silcock FCA	Non-executive Director
	Daniel Metzger	Non-executive Director
	Barnaby L. Kent	Non-executive Director (appointed 6 February 2023)
	Please refer to the inside back cover of this report for details of the professional background of each director.	
Secretary	Arif Karimjee ACA	
Registered office	Dorna House One 50 Guildford Road West End, Surrey GU24 9PW	
Registered name and number	Sopheon plc Registered in England and Wales No. 03217859	
Auditors	BDO LLP City Place Gatwick RH6 0PA	
Principal bankers and financiers	Silicon Valley Bridge Bank N.A. 3003 Tasman Drive Santa Clara, CA 95054 United States	HSBC Alphabeta 14-18 Finsbury Square London EC2A 1BR
	Rabobank Van Baerlestraat 102-106 1071 BC Amsterdam The Netherlands	Commerzbank Rheinstrasse 14 64283 Darmstadt Germany
Solicitors and attorneys	Squire Patton Boggs Premier Place 2 & A Half Devonshire Square London EC2M 4UJ	Briggs and Morgan 2200 IDS Center, 80 South 8th Street Minneapolis, MN 55402 United States
	Loyens & Loeff Parnassusweg 300 1081 LC Amsterdam The Netherlands	
AIM nominated adviser and broker	finnCap Limited One Bartholomew Close London EC1A 7BL	
Registrars	Link Asset Services 65 Gresham Street London EC2V 7NQ	

Board committee report

Remuneration committee

The remuneration committee of Sopheon plc is responsible for oversight of the contract terms, remuneration and other benefits for executive directors, including performance-related bonus schemes. The committee comprises three non-executive directors, Barry Mence, Daniel Metzger and Stuart Silcock, and is chaired by Barry Mence. The committee makes recommendations to the board, within agreed parameters, on an overall remuneration package for executive directors and other senior executives in order to attract, retain and motivate high quality individuals capable of achieving the group's objectives. The package for each director consists of a basic salary, benefits and pension contributions, together with performance-related bonuses and share options on a case-by-case basis. Consideration is given to pay and employment policies elsewhere in the group, especially when considering annual salary increases. From time to time, the remuneration committee may take advice from appropriate remuneration consultants or consult benchmarking data.

Contracts

Service contracts between the company and the executive directors are terminable on three to nine months' notice.

Fees for non-executive directors

The fees for non-executive directors are determined by the board. The non-executive directors are not involved in any discussions or decisions about their own remuneration.

Directors' remuneration

Set out below is a summary of the fees and emoluments received by all directors during the year, translated where applicable into US Dollars at the average rate for the period. Benefits primarily comprise healthcare insurance and similar expenses. Details of directors' interests in shares and options are set out in the Directors' Report. Mr. Coticchia was appointed to the board on 31 March 2021 but was employed by the group for the whole year and the remuneration disclosed is for the whole of that year. Mr. Mence became a non-executive director on the same date.

	Pay and fees 2022 $'000	*Bonus 2022 $'000*	*Benefits 2022 $'000*	*Total 2022 $'000*	*Pay and fees 2021 $'000*	*Bonus 2021 $'000*	*Benefits 2021 $'000*	*Total 2021 $'000*
Executive Directors								
A.L. Michuda	349	169	14	532	349	147	12	508
G.M Coticchia	270	108	-	378	260	93	-	353
A. Karimjee	201	75	5	281	222	73	6	301
Non-executive Directors								
B.K Mence	66	-	12	78	112	23	11	146
S.A. Silcock	34	-	-	34	37	-	-	37
D. Metzger	34	-	-	34	37	-	-	37
	954	352	31	1,337	1,017	336	29	1,382

The remuneration committee establishes the objectives that must be met for each financial year if a cash bonus is to be paid. With the principal exception of members of Sopheon's sales teams, for whom incentives are tied to individual or territory results, the committee concluded that the cash incentive should be tied to the financial performance of the group as a whole. For both 2022 and 2021, the incentive goals were tied to a combination of Adjusted EBITDA and Annual Recurring Revenue. These measures were applied to all members of the executive board and management committee of the group, as well as the majority of the group's employees.

In addition to the amounts disclosed above, pension contributions are made to individual directors' personal pension schemes. During 2022 contributions of $4,000, $6,000, $9,000 and $nil (2021: $2,000, $7,000, $10,000 and $2,000) were paid respectively to the pension schemes of Andy Michuda, Greg Coticchia, Arif Karimjee and Barry Mence.

Performance graph

The following graph shows the company's share price performance on AIM since December 2016, in British pounds Sterling, compared with the performance of the FTSE AIM All Share index, which has been selected for this comparison as it is a broad-based index which the directors believe most closely reflects the performance of companies with similar characteristics as the group.

Directors' interests

The interests of the directors, who held office at the end of the year, in the share capital of the company were as follows:

	Share Options		*Ordinary Shares*	
At 31 December	*2022*	*2021*	*2022*	*2021*
A.L. Michuda	320,000	320,000	64,120	64,120
G.M Coticchia	100,000	100,000	5,100	-
A. Karimjee	93,000	93,000	70,000	70,000
B.K. Mence	-	-	1,895,958	1,895,958
S.A. Silcock	-	-	279,490	279,490
D. Metzger	-	-	5,000	5,000

With respect to the interests stated above for Barry Mence, Stuart Silcock and Arif Karimjee, their respective spouses are the beneficial owners of 15,825, 8,875 and 20,000 ordinary shares each. Accordingly, at the year end the personal interest of Barry Mence was in 1,880,133 ordinary shares, Stuart Silcock in 270,615 ordinary shares and Arif Karimjee in 50,000 ordinary shares.

The following table provides information for each of the directors who held office during the year and held options to subscribe for Sopheon ordinary shares. All options were granted without monetary consideration.

	Date of Grant	*Exercise Price*	*At 31 December 2021*	*Granted During Year*	*Exercised During Year*	*At 31 December 2022*
A.L. Michuda	15 February 2017	467.5p	25,000	-	-	25,000
A.L. Michuda	11 February 2018	565p	50,000	-	-	50,000
A.L. Michuda	4 July 2018	900p	50,000	-	-	50,000
A.L. Michuda	13 July 2020	775p	30,000	-	-	30,000
A.L. Michuda	14 May 2021	900p	165,000	-	-	165,000
G. Coticchia	19 October 2020	785p	20,000	-	-	20,000
G. Coticchia	14 May 2021	845p	80,000	-	-	80,000
A. Karimjee	15 February 2017	467.5p	11,650	-	-	11,650
A. Karimjee	11 February 2018	565p	15,000	-	-	15,000
A. Karimjee	4 July 2018	900p	15,000	-	-	15,000
A. Karimjee	13 July 2020	775p	8,000	-	-	8,000
A. Karimjee	14 May 2021	900p	43,350	-	-	43,350

Vesting of all of the above share options which were outstanding at 31 December 2022 is in evenly over the three years from the date of grant and all such options expire on the tenth anniversary of the date of grant. The mid-market price of Sopheon ordinary shares at 31 December 2022 was 585p. During the financial year the mid-market price of Sopheon ordinary shares ranged from 505p to 960p. Save as disclosed above, no director (or member of his family) or connected persons has any interest, beneficial or non-beneficial, in the share capital of the company.

Audit committee

The Audit Committee, which includes all of the non-executive directors and is chaired by Stuart Silcock, considers and determines actions regarding any control or financial reporting issues they have identified, or that have been raised by the auditors. During the year, the Audit Committee met twice, and the external auditor and executive directors were invited to attend these meetings. Consideration was given to the external auditor's post-audit reports and these provide opportunities to review the accounting policies, internal control and financial information contained in both the annual and interim reports, as well as the independence of the external auditor. The committee chair is also able to meet with the auditor independently if required.

Approved by the board on 22 March 2023 and signed on its behalf by:

A. Karimjee
Director

Directors' report

The group's principal activities during the year continued to focus on the provision of software and services for complete Enterprise Innovation Management solutions. The Chairman's Statement on page 6 includes reference to the group's future prospects. In view of the fact that approximately two-thirds of the group's revenues and staff are based in the United States, the group's financial statements are presented in US Dollars. The board is pleased to recommend a final dividend in respect of the year ended 31 December 2022 of 3.25 pence per share (2021: 3.25 pence per share), amounting to £345,000 (2021: £342,000).

Directors

The directors who served during the year are disclosed in the Board Committee Reports.

Corporate governance

The Sopheon board is committed to maintaining high standards of corporate governance. In accordance with AIM Rule 26, AIM quoted companies are required to adopt and give details of the corporate governance code which they have adopted and to show how they are following it. In September 2018, the board adopted the Quoted Companies Alliance's (QCA) Corporate Governance Code for small and mid-size quoted companies (the "QCA Code").

Of the recognized codes generally adhered to by AIM companies, the QCA Code has been drafted with smaller businesses in mind, with a pragmatic and principles-based approach. It was therefore deemed by the board to be the most suitable.

The board had previously established an internal project to update its internal risk management procedures with a new enterprise risk framework based on the provisions proposed by COSO (Committee of Sponsoring Organizations of the Treadway Commission) with a view to incorporating a formal risk review agenda point in each board meeting. Key principles of the QCA Code have been incorporated into this risk management process.

Solid corporate governance is the foundation on which the business is managed, and this is supported by the range of talents of the directors. Biographies of the directors appear inside the back cover and demonstrate a range of experience and caliber to bring the right level of independent judgment to Sopheon's business. Ensuring financial strength alongside growth objectives is a key guiding principle, supported by an effort to ensure solid communication with shareholders.

The chairman is responsible for leading the board and for its overall effectiveness in directing the group. They ensure that the board implements, maintains and communicates effective corporate governance processes and promotes a culture of openness and debate designed to foster a positive governance culture throughout the group.

The board is responsible for the group's system of internal control and for reviewing its effectiveness. Such a system can only provide reasonable, but not absolute, assurance against material misstatement or loss. The board believes that the group has internal control systems in place appropriate to the size and nature of its business. The board is satisfied that the scale of the group's activities does not warrant the establishment of an internal audit function.

The board is also responsible for identifying the major business risks faced by the group and for determining the appropriate course of action to manage those risks. Formal meetings are held quarterly to review strategy, management and performance of the group, with additional meetings between those dates convened as necessary. During 2021, all directors attended all quarterly meetings either in person or by conference call.

The QCA Code identifies ten principles that focus on the pursuit of medium- to long-term value for shareholders without stifling entrepreneurial spirit. Sopheon's adoption of the QCA principles is summarized in the table below. Further details are made available on our website at www.sopheon.com/board-governance.

QCA principle	Sopheon adoption
1. **Establish a strategy and business model which promote long-term value for shareholders**	Sopheon's mission is to help our customers achieve exceptional long-term growth and profitability through sustainable innovation. Our guiding philosophy is to balance aggressive growth strategies with a focus on profitability, while also ensuring long-term financial stability. We believe the combination of these three factors will maximize long-term value for shareholders. Full information on the group's strategy and business model can be found in the Strategic Report on pages 5 to 17.
2. **Seek to understand and meet shareholder needs and expectations**	The board engages with shareholders and the broader investment community via a variety of channels and activities including the annual general meeting, updates to shareholders via reporting and the regulatory news service, and institutional presentations. The Chairman and CFO are the primary contacts for investor interaction alongside finnCap, with the CEO ensuring availability to meet investors when visiting Europe from his US base.
3. **Take into account wider stakeholder and social responsibilities and their implications for long-term success**	Sopheon's culture is very open and this includes reaching out and seeking feedback and insights from our various stakeholders. In addition to the investor outreach described above, key practical elements of this philosophy for other stakeholders include having a flat organization with few tiers of management, meeting regularly; all-hands communications via web-meetings; customer engagement through account management, satisfaction surveys and user forum events; and broader market engagement through close relationships with sector analysts such as Gartner.
4. **Embed effective risk management, considering both opportunities and threats, throughout the organization**	The board is responsible for identifying the major business risks faced by the group and for determining the appropriate course of action to manage those risks. In 2017 the board adopted a framework for the effective identification, assessment, and management of risks to the achievement of corporate objectives. The risk management process is managed in Accolade and is embedded in our quarterly meeting cycle. The risks that the board consider to be principal risks to the group's business are set out on page 25.
5. **Maintain the board as a well-functioning, balanced team led by the chair**	The QCA Code requires that boards have an appropriate balance between executive and non-executive directors and that each board should have at least two independent directors. The board is made up of three executive directors and three non-executive directors. The two non-executive directors are mature, experienced and independent persons who have each succeeded in their own businesses and are not dependent upon income from the group. They have developed a strong and detailed understanding of the business, and are prepared and able to intervene and challenge the executive directors.
6. **Ensure that between them the directors have the necessary up-to-date experience, skills and capabilities**	Details of the background and experience of the directors of the company are set out inside the back cover of this report. These demonstrate that our team collectively has the necessary skills and experiences, as well as the required caliber, to carry out the group's strategy and business model effectively. The non-executive directors comprise a financial specialist, two industry specialists, a general business specialist. All four have experience of working in a public company environment and an international market.
7. **Evaluate board performance based on clear and relevant objectives, seeking continuous improvement**	A board self-evaluation process led by the chairman takes place in July every three years, using a QCA-sponsored questionnaire and process. Low scoring or divergent scoring responses are discussed, with gaps and actions for improvement identified. This was last performed formally in 2019.
8. **Promote a corporate culture that is based on ethical values and behaviors**	Sopheon's core values statement and guiding principles, developed by the extended management team, support the group's culture with a strong footing in ethical values. These are reinforced in the staff handbook and the staff appraisal and development process, which formally embeds cultural and ethical considerations as part of each employee's self-evaluation.
9. **Maintain governance structures and processes that are fit for purpose and support good decision-making by the board**	Formal board meetings are held quarterly to review strategy, management and performance of the group, with additional meetings between those dates convened as necessary. We have two board committees, the Audit Committee and the Remuneration and Appointments Committee. The terms of reference of both these committees of the board reflect the principles of the QCA Code and are available online.
10. **Communicate how the company is governed and is performing by maintaining a dialog with shareholders and other relevant stakeholders**	The group's approach to investor and shareholder engagement is described under Principle 2 above. Annual reports, Annual General Meeting notices, regulatory announcements, trading updates and other governance-related materials since the year 2000 are available from the group's website.

Statement of Compliance with Section 172 of the Companies Act 2006

Legislation requires that directors include a separate statement in the annual report that explains how they have had regard to wider stakeholder needs when performing their duty under Section 172(1) of the Companies Act 2006. This duty requires that a director of a company must act in the way he or she considers, in good faith, would be most likely to promote the success of the company for the benefit of its members as a whole and in doing so have regard (amongst other matters) to:

a) the likely consequences of any decision in the long term;
b) the interests of the company's employees;
c) the need to foster the company's business relationships with suppliers, customers and others;
d) the impact of the company's operations on the community and the environment;
e) the desirability of the company maintaining a reputation for high standards of business conduct; and
f) the need to act fairly as between members of the company.

Guidance recommends that in connection with its statement, the board describe in general terms how key stakeholders, as well as issues relevant to key decisions, are identified, and also the processes for engaging with key stakeholders and understanding those issues. Within Sopheon the Board fulfils its duties partly through operation of a governance framework that appropriately delegates day-to-day decision making to the employees of the company, while recognizing that such delegation needs to be part of a robust governance structure, which covers our values, how we engage with our stakeholders, and how the Board assures itself that the governance structure and systems of controls continue to be robust.

In addition, the views of stakeholders are regularly communicated to the Board by management and via direct engagement with stakeholders, for example via an annual planning event involving the board and an extended management team, scheduled attendances at Board meetings and investor interactions. We summarize key engagement below, and note that this statement should be read in accordance with the strategic report, the corporate governance statement above, and the corporate governance web pages on our website.

Employees. People are the lifeblood and key resource of our group and we take great pains to ensure we understand our employees' perspectives and needs, and that they understand the group's goals. We have a flat organization with few tiers of management. The extended management team, comprising almost 20 people meets quarterly to review financial, operational and strategic progress against our plans and to discuss hot topics. In addition, the executive directors and senior management hold a formal meeting at least once a month, and the senior leadership team conducts daily and weekly operations meetings. The quarterly meetings are immediately followed by a Board meeting. Members of the management team are encouraged to debrief with their departmental staff following these sessions. Furthermore, the company arranges monthly online all-hands meetings to brief all staff on recent developments and deal with any questions that have arisen. Employees are encouraged to approach the CEO directly with questions. These mechanisms and channels allow for very broad discussion and engagement with staff as a whole. Very early in the Covid Pandemic, Sopheon took prompt action to ensure the health and safety of staff, introducing an immediate work from home policy and travel restrictions supported by well-defined virtual working practices leveraging cloud services.

Customers. Customer engagement is vital to ensure that we are responsive and market sensitive. In addition to our customer support and account management relationships, customers are invited to attend annual user forum events in both the Americas and Europe which allow for two way communication regarding their needs, our business and our solutions. In addition, certain key customers are invited to join a customer panel to provide more direct and specific input to our strategy and product roadmap. Broader market engagement is also achieved through close relationships with well-known technology sector business analysts such as Gartner and Forrester. Sopheon is positioned well in their reports, and has been named in over 50 Gartner research notes in recent years.

Suppliers. Sopheon is primarily a people business but we do have key suppliers that are important to enable us to deliver high quality products and services to our customers. We aim to treat all our suppliers fairly, including paying them within agreed timelines. When selecting and monitoring suppliers we pay close attention to their compliance ethos and reputation for integrity, including specific consideration of their stance on employee rights, IT security and privacy matters.

Community and environment. As a knowledge business we have limited impact on the environment, however we have embarked on a project to measure our Scope 1 & 2 carbon footprint and to consider mitigation activities. We are also very conscious of and grateful to the communities in which we are located. All our staff and offices are encouraged to dedicate working time to an activity that contributes to the community and are given time off to do so. In the past, staff from one of our offices spent a morning at a women's shelter and carried out extensive redecorations, and another office participated in a Toys for Tots drive, collecting gifts for needy children in the community. These group activities have been curtailed due to the pandemic and rising remote working, so we encourage staff to volunteer locally, and have also introduced a charitable contribution matching program.

Principal risk areas

As with any business at its stage of development, Sopheon faces a number of risks and uncertainties. The board monitors these risks on a regular basis. The key areas of risk identified by the board are summarized below.

Strategic. The broad market for Sopheon's solutions continues to evolve. Sopheon has formalized processes for soliciting input to product strategy from analysts and customers, while also capitalizing on the group's leadership in key market areas. Sopheon's ability to continue to finance its product investments at the optimal pace is dependent on the group maintaining profitability and sales growth alongside its investment strategy, or having appropriate financial resources in place to invest with confidence or to pursue and complete M&A opportunities. In this regard, Sopheon management is experienced in raising both debt and equity funding to meet requirements. This is underpinned by considerable cash balances built up from several years of operational success.

Economic. The economic climate has been impacted by several factors described in further detail elsewhere in this report, including the COVID-19 pandemic, Brexit and the war in Ukraine. To date, the impact on Sopheon's performance from these major events has been limited, but as for any business external economic shocks have the potential to cause reduced spend on innovation initiatives, software systems and services by customers.

Competitive. Sopheon remains a relatively small organization by global standards and compared to larger companies that are capable of developing competitive solutions. It can also be difficult to overcome the marketing engine of a large global firm. Sopheon seeks to compete effectively with such companies by keeping its market communications focused, clear and consistent with its product and market strategy, and working to deliver first class quality of execution so that the customer base is as referenceable as possible. Sopheon's use of an agile development methodology with deep customer involvement is a key plank in this approach along with offering a complete end-to-end set of solutions for innovation operations at both enterprise and individual levels.

Personnel. While service agreements have been entered into with key executives, retention of key members of staff cannot be guaranteed and departure of such employees could be damaging in the short term. In addition, the competition for qualified employees continues to be difficult and retaining key employees has remained challenging. As a relatively small business, Sopheon is more exposed to this risk than some of its larger competitors and it can also be easy for key personnel to become overloaded. In addition, recent global events have increased competition for key technical skills that Sopheon needs to recruit to achieve its goals. Sopheon management checks staff remuneration against recognized benchmarks and other industry sources and seeks to maintain pay at competitive levels appropriate to its business.

Legal. Sopheon may be exposed to claims for damages from customers in the event that there are errors in its software products, should support and maintenance service level agreements fail to meet agreed criteria, or should the security features of its software or hosting services fail. Sopheon has sought to protect itself from such risks through excellent development methodologies and high-quality operating procedures, its contract terms and insurance policies. Sopheon has never had any such claims.

Research and development

A summary of research and development activities and the key benefits and enhancements to the Sopheon Accolade solution is set out in the Strategic Report. A summary of the expenditure incurred and the accounting treatment thereof is set out in the Financial Review of the Strategic Report.

Financial instruments

Details of the group's financial instruments and its policies with regard to financial risk management are given in Note 22 to the financial statements.

Post balance sheet events

On Friday 10 March 2023, Silicon Valley Bank USA ("SVBUS") and Silicon Valley Bank UK ("SVBUK") had operations halted by the California Department of Financial Protection and Innovation and the Bank of England respectively. Immediately prior to the circumstances described above Sopheon had $23.7m in total cash reserves, of which $3.4m (14 percent) was held with SVBUS and $5.9m (25 percent) was held with SVBUK, both of which have now been fully recovered thanks to swift interventions by the respective governments. Sopheon proactively spreads cash deposits across several financial institutions, and the remaining $14.4m cash reserves was held with well-known high street banks in the UK, Germany and the Netherlands and accordingly, the Board believes that the group would have remained in a secure financial position even without the full recovery of the SVBUS and SVBUK balances. There are no other post balance sheet events that warrant disclosure in the financial statements.

Going concern

The board believes that the business is able to navigate through the continuing impact of the pandemic due to the strength of its customer proposition, its statement of financial position and the net cash position of the group. As further detailed in Note 2 to the financial statements, the group's going concern assessment is based on forecasts and projections of anticipated trading performance. The assumptions applied are subjective and management applies judgement in estimating the probability, timing and value of underlying cash flows. The Directors confirm that they have a reasonable expectation that the group will have adequate resources to continue in operational existence and settle liabilities as they fall due for the next 12 months from approval of these financial statements. Accordingly these financial statements are prepared on a going concern basis, with no material uncertainty over going concern.

Greenhouse gas emissions

The 2018 Regulations introduced requirements under Part 15 of the Companies Act 2006 for quoted companies to disclose their annual energy use and greenhouse gas emissions, and related information. However, the group has applied the option permitted to exclude any energy and carbon information relating to its subsidiaries which the subsidiaries would not themselves be obliged to include if reporting on their own account. This applies to all subsidiaries within the group. Sopheon plc itself consumed less than 40MWh during the reporting period, and therefore as a low energy user, it is not required to make the detailed disclosures of energy and carbon information but is required to state, in its relevant report, that its energy and carbon information is not disclosed for that reason.

Brexit

The United Kingdom ('UK') formally left the European Union ('EU') on 31 January 2020, followed by a transition period until 31 December 2020. Shortly before the expiry of the transition period the UK and the EU agreed upon a comprehensive Trade and Cooperation Agreement, which incorporated a free trade agreement, a partnership for citizens' security and a horizontal agreement on governance.

The effects of the UK's withdrawal from the EU and entering into the Trade and Cooperative Agreement with the EU has not had a significant impact on the group and company's operations, due to the global geographical footprint of the business and the nature of its operations. However, the directors and management continue to monitor the situation to manage the risk of the return of volatility in the global financial markets and impact on global economic performance.

War in Ukraine

In February 2022, Russia invaded Ukraine leading to a strong sanction response by many jurisdictions around the world including by the UK, USA and EU. Sopheon is committed to honouring the sanctions imposed on Russia, named individuals, and business entities. In addition, Sopheon, like many companies worldwide, has suspended all business activity with Russian entities. Although Sopheon does not have any active customers in Ukraine or Russia, prior to the invasion the group was involved in a small number of material sales opportunities within the territory, which ceased. This does not have any impact on the group's ability to continue as a going concern.

COVID-19

The directors have continued to monitor and respond to the effects of the global COVID-19 pandemic on the group and took rapid steps to ensure there was no material impact on the company's operations and working capital. In particular, in March 2020 the board implemented an immediate work from home policy and travel restrictions, supported by well-defined virtual working practices, as well as assuring continuity of business operations and cloud services through co-location and Azure based infrastructure. Working practices following the easing of the pandemic include a blend of home and office working. Rationalization of several office facilities has been undertaken as leases terminate, leading to some savings which are expected to be offset by travel and infrastructure costs.

Auditors

All of the current directors have taken all the steps that they ought to have taken to make themselves aware of any information needed by the company's auditors for the purposes of their audit and to ensure that the auditors are aware of that information. The directors are not aware of any relevant audit information of which the auditors are unaware. A resolution to reappoint BDO LLP as auditors will be put to the members at the Annual General Meeting.

Substantial shareholdings

The directors are aware of the following persons who as at 23 March 2023 were interested directly or indirectly in 3 percent or more of the company's issued ordinary shares:

	No. of Ordinary Shares	*Percent Issued Ordinary Shares*
Name		
Rivomore Limited and Myrtledare Corp.	2,074,308	19.5
B.K. Mence (director)	1,895,958	17.8
Canaccord Genuity Wealth Group Limited	1,324,070	12.3
Universal-Investment-GmbH	825,317	7.8
Chelverton Asset Management Limited	750,000	7.1

The interests of B.K. Mence represent direct beneficial holdings as well as those of his family.

Approved by the board on 22 March 2023 and signed on its behalf by:

A. Karimjee
Director

Statement of directors' responsibilities in respect of the financial statements

The directors are responsible for preparing the annual report and financial statements in accordance with applicable law and regulations.

Company law requires the directors to prepare financial statements for each financial year. Under that law the directors have elected to prepare the group and company financial statements in accordance with UK adopted International Accounting Standards. 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 profit or loss of the group for that period. The directors are also required to prepare financial statements in accordance with the rules of the London Stock Exchange for companies trading securities on the Alternative Investment Market.

In preparing these financial statements, the directors are required to:

- select suitable accounting policies and then apply them consistently;
- make judgments and accounting estimates that are reasonable and prudent;
- state whether they have been prepared in accordance with UK adopted International Accounting Standards in conformity with the requirements of the Companies Act 2006, subject to any material departures disclosed and explained in the financial statements; and
- prepare the financial statements on the going concern basis unless it is inappropriate to presume that the company will continue in business.

The directors are responsible for keeping adequate accounting records that are sufficient to show and explain the company’s transactions and disclose with reasonable accuracy at any time the financial position of the company and enable them to ensure that the financial statements comply with the requirements of the Companies Act 2006. They are also responsible for safeguarding the assets of the company and hence for taking reasonable steps for the prevention and detection of fraud and other irregularities.

Website publication

The directors are responsible for ensuring the annual report is made available on a website. Annual reports are published on the company's website in accordance with legislation in the United Kingdom governing the preparation and dissemination of financial statements, which may vary from legislation in other jurisdictions. The maintenance and integrity of the company's website is the responsibility of the directors. The directors’ responsibility also extends to the ongoing integrity of the annual reports contained therein.

Independent auditors' report to the members of Sopheon plc

Opinion on the financial statements

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 adopted international accounting standards and as applied in accordance with the provisions of the Companies Act 2006; and
- the financial statements have been prepared in accordance with the requirements of the Companies Act 2006.

We have audited the financial statements of Sopheon plc (the 'Parent Company') and its subsidiaries (the 'Group') for the year ended 31 December 2022 which comprise the consolidated income statement, the consolidated statement of comprehensive income, the consolidated and company statement of financial position, the consolidated and company cash flow statements, the consolidated and company statements of changes in equity, and notes to the financial statements, including a summary of significant accounting policies. The financial reporting framework that has been applied in their preparation is applicable law and UK adopted international accounting standards and, as regards the Parent Company financial statements, as applied in accordance with the provisions 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 under those standards are further described in the Auditor's responsibilities for the audit of the financial statements section of our report. We believe that the audit evidence we have obtained is sufficient and appropriate to provide a basis for our opinion.

Independence

We remain independent of the Group and the Parent Company in accordance with the ethical requirements that are relevant to our audit of the financial statements in the UK, including the FRC's Ethical Standard as applied to listed entities, and we have fulfilled our other ethical responsibilities in accordance with these requirements.

Conclusions relating to going concern

In auditing the financial statements, we have concluded that the Directors' use of the going concern basis of accounting in the preparation of the financial statements is appropriate. Our evaluation of the Directors' assessment of the Group and the Parent Company's ability to continue to adopt the going concern basis of accounting included:

- We assessed the appropriateness of the approach and model used by the Directors when performing their going concern assessment, including assessing and challenging the assumptions to determine whether there was adequate support for the assumptions underlying the forecasts and performing sensitivity analysis to consider cash flow changes if the level of revenue decreases or costs increase.
- We challenged the underlying data and key assumptions, being the level of sales and staff costs, used to make the assessment and comparing these to historical performance, post year end results and the Group's sales pipeline analysis.
- Additionally, we reviewed and challenged the results of the Directors' stress testing to assess the reasonableness of economic assumptions in light of the ongoing impact of the Ukraine conflict and their effect on the Group's solvency and liquidity position.

Based on the work we have performed, we have not identified any material uncertainties relating to events or conditions that, individually or collectively, may cast significant doubt on the Group and the Parent Company's ability to continue as a going concern for a period of at least twelve months from when the financial statements are authorised for issue.

Our responsibilities and the responsibilities of the Directors with respect to going concern are described in the relevant sections of this report.

Overview

Coverage	99.6% (2021: 99.8%) of Group profit before tax 99.5% (2021: 99.1%) of Group revenue 99.9% (2021: 99.8%) of Group total assets		
Key audit matters		2022	2021
	Revenue recognition	✔	✔
	Intangible assets Development costs – Capitalization and useful life	✔	✔
Materiality	*Group financial statements as a whole* $367,000 (2021: $344,000) based on 1.0% (2021: 1.0%) of revenue		

An overview of the scope of our audit

Our Group audit was scoped by obtaining an understanding of the Group and its environment, including the Group's system of internal control, and assessing the risks of material misstatement in the financial statements. We also addressed the risk of management override of internal controls, including assessing whether there was evidence of bias by the Directors that may have represented a risk of material misstatement.

Based on our assessment of the Group, we focused our Group audit scope primarily over the significant components, being Sopheon plc, United Kingdom; Sopheon Corporation, Minnesota; and Sopheon GmbH, Germany. These significant components were subject to full scope audits by the Group engagement team.

The remaining four non-significant components were subject to analytical procedures performed by the Group engagement team. Substantive testing was also performed over material financial statement areas within each of the insignificant components.

At the parent entity level, we also tested the consolidation process including consolidation adjustments and journals and performed work on all key judgement areas.

The figures in the table above illustrates the coverage from our full scope audit work performed over the significant components within the Group for total assets and profit before tax. With regards to revenue, the coverage was obtained through substantive testing performed on each component within the Group that had a material revenue balance.

Key audit matters

Key audit matters are those matters that, in our professional judgement, were of most significance in our audit of the financial statements of the current period and include the most significant assessed risks of material misstatement (whether or not due to fraud) that we identified, 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. These matters were addressed in the context of our audit of the financial statements as a whole, and in forming our opinion thereon, and we do not provide a separate opinion on these matters.

Key audit matter		How the scope of our audit addressed the key audit matter
Revenue Recognition See accounting policy in Note 2 on pages 41 and 42, and Revenue from contracts with customers in Note 4 on page 48.	The Group, as a software business, generates revenue primarily from the sale of licenses either on a perpetual licence basis or under a Software-as-a-Service ('SaaS') model, related maintenance / support contracts and service income. We considered there to be a significant audit risk arising from inappropriate or incorrect recognition of revenue. The Key audit matters related to revenue recognition are as follows: The risk of material misstatement around the year end, particularly in relation to license sales and consulting and implementation service contracts due to the level of judgement involved in determining the satisfaction of performance obligations.	Our procedures included the following: • We assessed the appropriateness of the revenue recognition policy, in line with the requirements of applicable accounting standards. • In relation to perpetual license contract revenue, we reviewed the terms of a sample of binding contracts that were entered into during the year and checked the revenue was recognized in the correct period by checking that the delivery of the licence key, which provides the customer with access to the Accolade software, occurred before year end. • For a sample of SaaS contracts (being maintenance, software subscriptions and hosting services) we checked that the revenue was recognized in line with the contractual terms of the agreement with the customer. This being the recognition of revenue over the lifetime of the contract. • For each contract selected we assessed, with reference to the terms of the contract, whether the customer had the right to access the software under a SaaS arrangement or whether the customer had the right to use and control the software meaning it should be classed as a perpetual licence contract. This was then compared against managements treatment of the contract. • For a sample of contracts involving multiple performance obligations, we obtained management's assessment of the different performance obligations and the allocation of the transaction price against each distinct performance obligation. We then reviewed the supporting contract and calculations behind this assessment to verify that the performance obligations were in line with the distinct services outlined in the signed contract and that the transaction price had been allocated correctly based on appropriate measures. We also checked that revenue was only being recognized when the distinct performance obligations were satisfied by agreeing to supporting documentation regarding the delivery of the various performance obligations. • We performed testing over revenue recorded for a defined period before and after year end by verifying back to underlying agreements and relevant supporting documentation to check that revenue was recognized in the correct period in line with the performance obligations. ***Key observations:*** Based on the procedures performed, we did not identify any matters to suggest that the recognition of revenue was inappropriate.

<table>
<tr><th colspan="2">Key audit matter</th><th>How the scope of our audit addressed the key audit matter</th></tr>
<tr>
<td>Intangible Assets: Development costs – Capitalization and useful life

See accounting policy in Note 2 on page 44 and intangible assets in Note 14 on pages 54 and 55.</td>
<td>The Group capitalizes costs in relation to the development of the software provided to its clients, being the Accolade platform as described on page 54.

In accordance with the requirements of the applicable accounting standard, management's policy is to capitalize development expenditure on internally developed software products if the costs can be measured reliably and the resulting asset meets the criteria per the standard.

The key audit matters related to this financial statement area are as follows:

• Development costs satisfy the above capitalization criteria and are appropriately recognized in the Consolidated Statement of Financial Position.

• The asset's estimated useful life is inappropriate.</td>
<td>Our procedures included the following:

• Discussions were held with management to understand the Group's processes, procedures and projects in relation to development costs;

• Tested the accuracy of the contractor and payroll data, on a sample basis, included in the calculations for capitalized costs to supporting documentation including employment contracts and agreements with contractors;

• Considered the proportion of time allocations for employees and contractor roles to different projects, capital and non-capital, to assess the appropriateness of cost capitalization. We corroborated management's explanations to supporting evidence;

• Assessed management's estimate of the amortization period applied to the asset by considering relevant industry benchmarks and specific knowledge of the clients product.

• Assessed the ability of the asset to generate future economic benefits for the business, which at least exceed its carrying value by assessing the use of the technology platforms in the performance of the Group's obligations to customers and management's future forecasts for revenue generation.

Key observations:

Based on the procedures performed, we did not identify any matters to suggest that the capitalization and useful life of the intangible assets were inappropriate.</td>
</tr>
</table>

Our application of materiality

We apply the concept of materiality both in planning and performing our audit, and in evaluating the effect of misstatements. We consider materiality to be the magnitude by which misstatements, including omissions, could influence the economic decisions of reasonable users that are taken on the basis of the financial statements.

In order to reduce to an appropriately low level the probability that any misstatements exceed materiality, we use a lower materiality level, performance materiality, to determine the extent of testing needed. Importantly, misstatements below these levels will not necessarily be evaluated as immaterial as we also take account of the nature of identified misstatements, and the particular circumstances of their occurrence, when evaluating their effect on the financial statements as a whole.

Based on our professional judgement, we determined materiality for the financial statements as a whole and performance materiality as follows:

	Group financial statements		**Parent company financial statements**	
	2022 *$*	*2021* *$*	*2022* *$*	*2021* *$*
Materiality	367,000	344,000	238,000	240,000
Basis for determining materiality	1 percent of revenue	1 percent of revenue	1 percent of revenue restricted to 70 percent of Group materiality	65 percent of revenue restricted to 70 percent of Group materiality
Rationale for the benchmark applied	We considered revenue to be the most appropriate benchmark as this is the primary KPI which is used to assess the performance of the Group by the board and an important performance based metric to the users of the financial statements.		65 percent of Group materiality	70 percent of Group materiality
Performance materiality	257,000	241,000	166,000	168,000
Basis for determining performance materiality	Performance materiality was set at 70 percent due to the facts that there are multiple components within the Group. Additionally, there are a select number of areas included in the accounts which are subject to estimates.		Performance materiality was set at 70 percent due to the fact there are a select number of areas included in the accounts which are subject to estimates.	

Component materiality

We set materiality for each component of the Group based on a percentage of between 65 percent and 100 percent of Group materiality dependent on the size and our assessment of the risk of material misstatement of that component. Component materiality ranged from $238,000 to $367,000. In the audit of each component, we further applied performance materiality levels of 70 percent of the component materiality to our testing to ensure that the risk of errors exceeding component materiality was appropriately mitigated.

Reporting threshold

We agreed with the Audit Committee that we would report to them all individual audit differences in excess of $14,000 (2021: $14,000). We also agreed to report differences below this threshold that, in our view, warranted reporting on qualitative grounds.

Other information

The Directors are responsible for the other information. The other information comprises the information included in the 2022 Annual Report other than the financial statements and our auditor’s report thereon. Our opinion on the financial statements does not cover the other information and, except to the extent otherwise explicitly stated in our report, we do not express any form of assurance conclusion thereon. Our responsibility is to read the other information and, in doing so, consider whether the other information is materially inconsistent with the financial statements or our knowledge obtained in the course of the audit, or otherwise appears to be materially misstated. If we identify such material inconsistencies or apparent material misstatements, we are required to determine whether this gives rise to a material misstatement in the financial statements themselves. If, based on the work we have performed, we conclude that there is a material misstatement of this other information, we are required to report that fact.

We have nothing to report in this regard.

Other Companies Act 2006 reporting

Based on the responsibilities described below and our work performed during the course of the audit, we are required by the Companies Act 2006 and ISAs (UK) to report on certain opinions and matters as described below.

Strategic Report and Directors' Report	In our opinion, based on the work undertaken in the course of the audit: • the information given in the Strategic report and the Directors' report for the financial year for which the financial statements are prepared is consistent with the financial statements; and • the Strategic report and the Directors' report have been prepared in accordance with applicable legal requirements. In the light of the knowledge and understanding of the Group and Parent Company and its environment obtained in the course of the audit, we have not identified material misstatements in the strategic report or the Directors' report.
Matters on which we are required to report by exception	We have nothing to report in respect of the following matters in relation to which the Companies Act 2006 requires us 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 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.

Responsibilities of directors

As explained more fully in Statement of directors' responsibilities in respect of the financial statements, the Directors are responsible for the preparation of the financial statements and for being satisfied that they give a true and fair view, and for such internal control as the Directors determine is necessary to enable the preparation of financial statements that are free from material misstatement, whether due to fraud or error.

In preparing the financial statements, the Directors are responsible for assessing the Group's and the 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 the Directors 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 for the audit of the financial statements

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 an auditor's report that includes our opinion. Reasonable assurance is a high level of assurance, but is not a 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 the aggregate, they could reasonably be expected to influence the economic decisions of users taken on the basis of these financial statements.

Extent to which the audit was capable of detecting irregularities, including fraud.

Irregularities, including fraud, are instances of non-compliance with laws and regulations. We design procedures in line with our responsibilities, outlined above, to detect material misstatements in respect of irregularities, including fraud. The extent to which our procedures are capable of detecting irregularities, including fraud is detailed below:

- We obtained an understanding of the legal and regulatory frameworks, by enquiry with management, that are applicable to the Group and determined that the most significant laws and regulations which are directly relevant to specific assertions in the financial statements are those that relate to the reporting framework, rules of the London Stock Exchange for companies trading securities on AIM, the Companies Act 2006 and relevant tax compliance regulations;
- We understood how the Group is complying with those frameworks by making enquiries of management, those charged with governance, those responsible for legal and compliance procedures and the Company Secretary. We corroborated our enquiries through our review of board minutes and papers provided to the Audit Committee;
- We assessed the susceptibility of the Group's financial statements to material misstatement, including how fraud might occur, by meeting with management from across the Group to understand where they considered there was a susceptibility to fraud;
- Our audit planning identified fraud risks in relation to management override and inappropriate or incorrect recognition of revenue (revenue recognition assessed as a Key Audit Matter above). We obtained an understanding of the processes and controls by component that management have established to address risks identified, or that otherwise prevent, deter and detect fraud; and how management monitors these processes and controls; and
- With regards to the fraud risk in management override, our procedures included journal transaction testing, with a focus on large or unusual transactions based on our knowledge of the business by agreeing to the supporting documentation. We also performed an assessment on the appropriateness of key judgements and estimates, for example the capitalization of development costs (the risks associated with the capitalization of development costs has been assessed as a Key Audit Matter above), which are subject to managements' judgement and estimation, and could be subject to potential bias.

We also communicated relevant identified laws and regulations and potential fraud risks to all engagement team members and remained alert to any indications of fraud or non-compliance with laws and regulations throughout the audit. The engagement partner has assessed and confirmed that the engagement team collectively had the appropriate competence and capabilities to identify or recognize non-compliance with laws and regulations.

Our audit procedures were designed to respond to risks of material misstatement in the financial statements, recognising that the risk of not detecting a material misstatement due to fraud is higher than the risk of not detecting one resulting from error, as fraud may involve deliberate concealment by, for example, forgery, misrepresentations or through collusion. There are inherent limitations in the audit procedures performed and the further removed non-compliance with laws and regulations is from the events and transactions reflected in the financial statements, the less likely we are to become aware of it.

A further description of our responsibilities is available on the Financial Reporting Council's website at: **www.frc.org.uk/auditorsresponsibilities**. This description forms part of our auditor's report.

Use of our report

This report is made solely to the Parent 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 Parent 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 Parent Company and the Parent Company's members as a body, for our audit work, for this report, or for the opinions we have formed.

Michael Philp (Senior Statutory Auditor)
For and on behalf of BDO LLP, Statutory Auditor
Gatwick, UK

22 March 2023

BDO LLP is a limited liability partnership registered in England and Wales (with registered number OC305127).

Consolidated income statement for the year ended 31 December 2022

	Notes	2022 $'000	2021 $'000
Revenue	3, 4	36,787	34,356
Cost of sales		(9,068)	(9,416)
Gross profit		27,719	24,940
Sales and marketing expense		(11,064)	(10,991)
Research and development expense[1]		(10,536)	(7,329)
Administrative expense		(4,787)	(5,293)
Operating profit		1,332	1,327
Finance income	8	79	(34)
Finance expense	9	(62)	(66)
Profit before tax	5	1,349	1,227
Income tax charge[2]	10	(2,226)	(410)
(Loss)/profit for the year		(877)	817
Earnings per share			
Basic (US cents)	12	(8.28c)	7.82c
Fully diluted (US cents)	12	(8.28c)	7.47c

Consolidated statement of comprehensive income for the year ended 31 December 2022

	2022 $'000	2021 $'000
(Loss)/profit for the year	(877)	817
Other comprehensive expense		
Items that may be reclassified to profit or loss:		
Exchange differences on translation of foreign operations	(1,562)	(734)
Total comprehensive (loss)/income for the year	(2,439)	83

[1] *Research and development expense in 2022 includes an exceptional $1.6m write down and a further $0.6m in acquisition related amortization as set out in Note 14.*

[2] *The 2022 tax charge includes $1.9m of deferred tax movements and $0.3m of actual current tax, as set out in Note 10.*

Consolidated and company statement of financial position at 31 December 2022

		Group		Company	
	Notes	2022 $'000	2021 $'000	2022 $'000	2021 $'000
Assets					
Non-current Assets					
Property, plant and equipment	13	584	605	-	-
Right-of-use assets	21	450	752	-	-
Intangible assets	14	13,073	11,950	-	-
Investments in subsidiaries	15	-	-	7,368	8,247
Deferred tax asset	10	625	2,557	-	-
Other receivables	16	19	19	16,793	16,793
Total non-current assets		14,751	15,883	24,161	25,040
Current Assets					
Contract assets	4, 17	4,085	222	-	-
Trade and other receivables	17	14,788	12,960	83	137
Cash and cash equivalents	18	21,121	24,193	7,054	7,375
Total current assets		39,994	37,375	7,137	7,512
Total assets		54,745	53,258	31,298	32,552
Liabilities					
Current Liabilities					
Contract liabilities	4	16,501	13,505	-	-
Trade and other payables	19	7,606	7,668	496	477
Lease liabilities	21	271	474	-	-
Total current liabilities		24,378	21,647	496	477
Non-current Liabilities					
Lease liabilities	21	193	305	-	-
Other payables	19	549	-	-	-
Total non-current liabilities		742	305	-	-
Total liabilities		25,120	21,952	496	477
Net assets		29,625	31,306	30,802	32,075
Equity					
Share capital	23	3,248	3,219	3,248	3,219
Capital reserves	24	11,247	10,500	11,247	10,500
Translation reserve		(1,594)	(32)	(3,255)	(1,587)
Retained profits		16,724	17,619	19,562	19,943
Total equity		29,625	31,306	30,802	32,075

As permitted by Section 408 of the Companies Act 2006, the income statement of the parent company is not presented as part of these financial statements. The loss dealt with in the financial statements of the parent company for the year ended 31 December 2022 was $363,000 (2021: profit of $1,827,000).

Approved by the board and authorized for issue on 22 March 2023.

Andrew Michuda
Director

Arif Karimjee
Director

Consolidated and company cash flow statements for the year ended 31 December 2022

		Group		Company	
	Notes	2022 $'000	2021 $'000	2022 $'000	2021 $'000
Operating Activities					
(Loss)/profit for the year		(877)	817	(363)	1,827
Adjustments for:					
Finance income	8	(79)	34	-	-
Finance costs	9	62	66	4	4
Depreciation of property, plant and equipment	13	411	341	-	-
Depreciation of right-of-use assets	21	487	635	-	-
Amortization and impairment of intangible assets	14	5,564	2,997	-	-
Share-based payment expense		761	880	174	119
Income tax charge		2,226	410	-	-
Operating cash flows before movements in working capital		8,555	6,180	(185)	1,950
Intra-group credits and charges		-	-	35	118
Decrease in provisions against intra-group loans		-	-	(263)	(3,228)
(Increase)/decrease in receivables		(6,062)	1,244	54	(28)
Increase in payables		3,362	3,147	19	81
Net cash generated from/(used in) operating activities		5,855	10,571	(340)	(1,107)
Income taxes paid		(271)	(487)	-	-
Net cash from/(used in) operating activities		5,584	10,084	(340)	(1,107)
Investing Activities					
Finance income	8	79	1	-	-
Purchases of property, plant and equipment	13	(401)	(435)	-	-
Development costs capitalized	14	(5,207)	(4,271)	-	-
Acquisitions of businesses	14	(753)	(1,450)	-	-
Purchases of shares by EBT	24	(155)	-	(155)	-
Advance of loans to group companies		-	-	(2,623)	(1,336)
Repayment of loans by group companies		-	-	2,369	5,220
Net cash (used in)/generated from investing activities		(6,437)	(6,155)	(409)	3,884
Financing Activities					
Issues of shares		249	648	249	648
Lease payments	21	(522)	(685)	-	-
Interest paid		(38)	(56)	(4)	(4)
Dividends paid	25	(408)	(460)	(408)	(460)
Net cash (used in)/generated from financing activities		(719)	(553)	(163)	184
Net (decrease)/ increase in cash and cash equivalents		(1,572)	3,376	(912)	2,961
Cash and cash equivalents at the beginning of the year		24,193	21,718	7,375	4,547
Effect of foreign exchange rate changes		(1,500)	(901)	591	(133)
Cash and cash equivalents at the end of the year	18	21,121	24,193	7,054	7,375

Consolidated and company statements of changes in equity for the year ended 31 December 2022

Group

	Share Capital $'000	Capital Reserves $'000	Translation Reserve[1] $'000	Retained Profits $'000	Total $'000
At 1 January 2021	3,133	9,398	702	16,922	30,155
Profit for the year	-	-	-	817	817
Exchange differences on translation of foreign operations	-	-	(734)	-	(734)
Total comprehensive income for the year	-	-	(734)	817	83
Issues of shares	86	562	-	-	648
Recognition of share-based payments	-	880	-	-	880
Lapse or exercise of share options	-	(340)	-	340	-
Dividends paid in year	-	-	-	(460)	(460)
At 31 December 2021	3,219	10,500	(32)	17,619	31,306
Loss for the year	-	-	-	(877)	(877)
Exchange differences on translation of foreign operations	-	-	(1,562)	-	(1,562)
Total comprehensive loss for the year	-	-	(1,562)	(877)	(2,439)
Issues of shares	29	531	-	-	560
Recognition of share-based payments	-	761	-	-	761
Lapse or exercise of share options	-	(390)	-	390	-
Purchase of shares for treasury	-	(155)	-	-	(155)
Dividends paid in year	-	-	-	(408)	(408)
At 31 December 2022	3,248	11,247	(1,594)	16,724	29,625

Company

	Share Capital $'000	Capital Reserve $'000	Translation Reserve[1] $'000	Retained Profits $'000	Total $'000
At 1 January 2021	3,133	9,398	(1,361)	18,236	29,406
Profit and total comprehensive income for the year	-	-	(226)	1,827	1,601
Issues of shares	86	562	-	-	648
Recognition of share-based payments	-	880	-	-	880
Lapse or exercise of share options	-	(340)	-	340	-
Dividends paid in year	-	-	-	(460)	(460)
At 31 December 2021	3,219	10,500	(1,587)	19,943	32,075
Loss and total comprehensive loss for the year	-	-	(1,668)	(363)	(2,031)
Issues of shares	29	531	-	-	560
Recognition of share-based payments	-	761	-	-	761
Lapse or exercise of share options	-	(390)	-	390	-
Purchase of shares for treasury	-	(155)	-	-	(155)
Dividends paid in year	-	-	-	(408)	(408)
At 31 December 2022	3,248	11,247	(3,255)	19,562	30,802

[1] *The group translation reserve represents accumulated differences on the translation of assets and liabilities of foreign operations. The company translation reserve arises due to the company's functional currency being different to the presentation currency. Full details of capital reserves are set out in Note 24.*

1. General information

Sopheon plc ("the company") is a public limited company incorporated in England and Wales. The address of its registered office and principal place of business is set out on page 18. The principal activities of the company and its subsidiaries are described in Note 3. The financial statements have been presented in US Dollars and rounded to the nearest thousand.

2. Significant accounting policies

The financial statements have been prepared in accordance with UK adopted international accounting standards in accordance with the requirements of the Companies Act 2006, and as regards the parent company financial statements, as applied in accordance with the provisions of the Companies Act 2006. The principal accounting policies are set out below. The policies have been applied consistently to both years presented.

A number of other new standards, amendments and interpretations to existing standards have been adopted by the group, but have not been listed, since they have no material impact on the financial statements. None of the other new standards, amendments and interpretations in issue but not yet effective are expected to have a material effect on the financial statements.

While the functional currency of the parent company is Sterling, the group and company's financial statements have been presented in US Dollars. The directors believe this better reflects the underlying nature of the group's operations. Approximately two-thirds of the group's revenue and operating costs are denominated in US Dollars. The exchange rates used for translation of Sterling amounts are 1.2039 US Dollars to British Pounds Sterling as at 31 December 2022 and 1.2401 US Dollars to British Pounds Sterling as the average rate prevailing during 2022.

Going concern

The consolidated financial statements have been prepared on a going concern basis. The directors have at the time of approving the financial statements, a reasonable expectation that the company has adequate resources to continue in operational existence for the foreseeable future.

The COVID-19 pandemic, Brexit and the war in Ukraine have so far had limited impact on our business, and the board believes that the business is able to navigate through the continued challenges of these events due to the strength of its customer proposition, statement of financial position and the net cash position of the group. However, these conditions continue to create uncertainty and have had a widespread impact economically, with potential for causing delays in contract negotiations and/or cancelling of anticipated sales and an uncertainty over cash collection from certain customers. As a consequence, the group has carried out detailed forecast stress testing in order to consider how much forecasts have to reduce by in order to cause cash constraints, and also to consider the likelihood of this scenario occurring. This assessment has also included the group's actual cash holdings as of the date of the approval of these financial statements and financing alternatives available to the group. Overall, these cash-flow forecasts, which cover a period of at least 12 months from the date of approval of the financial statements, foresee that the group will be able to operate within its existing facilities. Nevertheless, there is a risk that the group will be impacted more than expected by reductions in customer confidence if global economic sentiment deteriorates. If sales and settlement of existing debts are not in line with cash flow forecasts, the directors have the ability to identify cost savings if necessary, to help mitigate the impact on cash outflows.

Having assessed the principal risks and the other matters discussed in connection with the going concern statement, the directors have a reasonable expectation that the group has adequate resources to continue in operational existence for the foreseeable future and settle liabilities as they fall due. For these reasons, they continue to adopt the going concern basis of accounting in preparing the financial information.

Basis of preparation

The consolidated financial statements incorporate the financial statements of the parent company, Sopheon plc, and the financial statements of the subsidiaries controlled by the group as defined by IFRS 10 Consolidated Financial Statements, as shown in Note 15. 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. The financial statements of all the group companies are prepared using uniform accounting policies. All intra-group transactions, balances, income and expenses are eliminated on consolidation.

Business combinations

The acquisition of a business, whether as a subsidiary through the acquisition of a corporate entity or as the acquisition of the assets and liabilities of a business, is accounted for within the consolidated financial statements using the purchase method. The cost of the acquisition is measured at the aggregate of the fair values at the date of exchange, of assets given, liabilities incurred or assumed, and equity instruments issued by the group in exchange for control of the business being acquired, together with any costs directly attributable to the business combination. The results of the acquired business is included in the consolidated income statement from the date on which effective control is obtained. The identifiable assets, liabilities and contingent liabilities of the business being acquired that meet the conditions for recognition are recognized at their fair values on the date of acquisition.

Identifiable intangible assets are capitalized at fair value as at the date of acquisition. The useful lives of these intangible assets are assessed and amortization is charged on a straight-line basis, with the expense taken to the income statement within sales and marketing expense (in respect of customer relationships) and research and development expense (in respect of IPR and technology). Intangible assets are tested for impairment when a trigger event occurs. Useful lives are also examined on an annual basis and adjustments, where applicable, are made on a prospective basis.

Details of the acquisitions of the business of ROI Blueprints LLC in December 2021 and of Solverboard in May 2022 appear in Note 14.

Goodwill

Goodwill arising on the acquisition of a subsidiary represents the excess of the cost of acquisition over the group's interest in the net fair value of the identifiable assets, liabilities and contingent liabilities of the subsidiary at the date of acquisition. Goodwill is initially recognized at cost and is subsequently measured at cost less any accumulated impairment losses.

For the purposes of impairment testing, goodwill is allocated to those cash-generating units of the group expected to benefit from the synergies of the business combination. Cash-generating units to which goodwill has been allocated are tested for impairment annually, or more frequently when there is an indication that the unit may be impaired. If the recoverable amount of the cash-generating unit is less than the carrying value of the unit, the impairment loss is allocated firstly to reduce the carrying cost of any goodwill allocated to the unit and then to any other assets of the unit pro rata to the carrying value of each asset of the unit. An impairment loss recognized for goodwill is not reversed in a subsequent period.

Revenue recognition

Revenue is measured at the fair value of the consideration received or receivable and represents amounts receivable for goods and services provided in the normal course of business, net of discounts and sales-related taxes.

Sales of perpetual software licenses are recognized at a point in time once no significant obligations remain owing to the customer in connection with such license sale, in particular that the license does not give the customer significant rights to upgrades and enhancements in the future unless separately contracted. Such significant obligations could also include giving a customer a right to return the software product without any preconditions, or if the group is unable to deliver a material element of the software product by the balance sheet date.

Revenues relating to software subscription, maintenance, and hosting agreements are deferred creating a contract liability at the period end, and recognized evenly over the term of the agreements, due to the customer simultaneously receiving and consuming the benefits of the contractual performance obligation over that term.

Revenues from implementation and consultancy services are recognized as the services are performed, or in the case of fixed price or milestone-based projects, on a percentage basis as the work is completed and any relevant milestones are met, using latest estimates to determine the expected duration and cost of the project. Based on stage of completion and billing arrangement, either a contract asset or a contract liability is created at the period end.

Where the group is acting as a principal, other income includes recoverable costs that have been incurred in the course of business including travel expenses of employees and contractors.

Where a sales contract involves multiple service obligations, the allocation of the transaction price is performed proportionally based on the standalone selling price for each obligation. The way in which management assigns the selling price to each separate performance obligation is based on the cost of satisfying the performance obligation plus an appropriate margin based on experience of standalone sales.

Leases

At inception of a contract, the group assesses whether a contract is, or contains, a lease based on whether the contract conveys the right to control the use of an identified asset for a period of time in exchange for consideration.

The group recognizes a right-of-use asset and a corresponding lease liability at the lease commencement date. The lease liability is initially measured at the present value of the following lease payments:

- fixed payments;
- variable payments that are based on an index or rate;
- the exercise price of any extension or purchase option if reasonably certain to be exercised; and
- penalties for terminating the lease, if relevant.

The lease payments are discounted using the interest rate implicit in the lease or, if that rate cannot be readily determined, the group's incremental borrowing rate.

The right-of-use assets are initially measured based on the initial amount of the lease liability adjusted for any lease payments made at or before the commencement date, plus any initial direct costs. The right-of-use assets are depreciated over the period of the lease term, or, if earlier, the useful life of the asset, using the straight-line method. The lease term includes periods covered by an option to extend, if the group is reasonably certain to exercise that option. In addition, the right-of-use assets may during the lease term be reduced by impairment losses, if any, or adjusted for certain re-measurements of the lease liability.

The company has elected not to recognize right-of-use assets and lease liabilities in respect of certain leases of office equipment of low value or of short term. The lease payments associated with these leases are recognized as an expense on a straight-line basis over the lease term.

On 28 May 2020, the IASB issued final amendments to IFRS 16 related to COVID-19 rent concessions for lessees. The amendments modify the requirements of IFRS 16 to permit lessees to not apply modification accounting to certain leases where the contractual terms have been affected due to COVID-19 (such as rent holidays or other rent concessions). The amendments are effective for periods beginning on or after 1 June 2020, with earlier application permitted. The group did not adopt this standard as no such concessions were applicable.

Interest on borrowings

All interest on borrowings is recognized in the income statement using the effective interest rate method.

Retirement benefit costs

Payments to defined contribution retirement benefit plans are charged as an expense as they fall due. The group does not operate any defined benefit retirement plans.

Foreign currencies

The individual financial statements of each group entity are prepared in the currency of the primary economic environment in which the entity operates (its functional currency). In preparing the financial statements of the individual entities, transactions in currencies other than the entity's functional currency (foreign currencies) are recorded at rates approximating to the transaction rates. At each balance sheet date, monetary items denominated in foreign currencies are retranslated at the rates prevailing on the balance sheet date. Exchange differences arising on the settlement of monetary items, and on the retranslation of monetary items, are included in the income statement for the period.

For the purpose of presenting consolidated financial statements, the assets and liabilities of the group's foreign operations are expressed in US Dollars using exchange rates prevailing on the balance sheet date. Income and expense items (including comparatives) are translated at the average exchange rates for the period. Exchange differences arising (including exchange differences on intra-group loans where there is no intention that these should be settled) are classified as equity and transferred to the group's translation reserve. The same approach is used to translate the financial statements of the company on a stand-alone basis from Sterling to US Dollars. The equity of the company and group is retranslated into the presentational currency at its historical rate.

Deferred tax

Deferred tax is recognized on differences between the carrying amounts of assets and liabilities in the financial statements and the corresponding tax bases used in the computation of taxable profit, and is accounted for using the balance sheet liability method. Deferred tax liabilities are generally recognized for all taxable temporary differences. Deferred tax assets are recognized only to the extent that the level and timing of taxable profits can be measured, and it is probable that these will be available against which deductible temporary differences can be utilized.

Deferred tax is calculated at tax rates that have been enacted or substantively enacted at the balance sheet date, and that are expected to apply in the period when the liability is settled or the asset realized. Deferred tax is charged or credited to profit or loss, except when it relates to items charged or credited directly to equity, in which case the deferred tax is also dealt with in equity.

Property, plant and equipment

Computer equipment and fixtures and fittings are stated at cost less accumulated depreciation and any accumulated impairment losses. Depreciation is charged so as to write off the costs of assets over their estimated useful lives, using the straight-line method.

The gain or loss arising on the disposal or retirement of an item of property, plant and equipment is determined as the difference between the sale proceeds and the carrying amount of the asset and is recognized in the income statement.

The following rates are used for the depreciation of property, plant and equipment:

Computer equipment	20-33 percent on a straight-line basis
Furniture and fittings	20-25 percent on a straight-line basis

Investments

Investments in subsidiaries within the company balance sheet are stated at cost less impairment. Impairment tests are undertaken whenever events or changes in circumstances indicate that their carrying amount may not be recoverable. Where the carrying value of an investment exceeds its recoverable amount, the investment is written down accordingly.

Internally generated intangible assets (research and development expenditure)

Development expenditure on internally developed software products is capitalized if it can be demonstrated that:

- it is technically feasible to develop the product;
- adequate resources are available to complete the development;
- there is an intention to complete and sell the product;
- the group is able to sell the product;
- sales of the product will generate future economic benefits; and
- expenditure on the product can be measured reliably.

Development costs not satisfying the above criteria and expenditure on the research phase of internal projects are recognized in the income statement as incurred. Capitalization of a particular activity commences after proof of concept, requirements and functional concept stages are complete.

Capitalized development costs are amortized over the period over which the group expects to benefit from selling the product developed. This has been estimated to be four years from the date of code-finalization of the applicable software release. The amortization expense in respect of internally generated intangible assets is included in research and development costs.

Impairment of tangible and intangible assets (excluding goodwill)

At each balance sheet date, the group reviews the carrying amounts of its tangible and intangible assets to determine whether there is any indication that those assets have suffered an impairment loss. If any such indication exists, the recoverable amount of the asset is estimated in order to determine the extent of the impairment loss (if any). Where it is not possible to estimate the recoverable amount of an individual asset, the group estimates the recoverable amount of the cash-generating unit to which the asset belongs.

Recoverable amount is the higher of the fair value less costs to sell and value in use. In assessing the value in use, the estimated future cash flows are discounted to their net present value using a pre-tax discount rate that reflects current market assessments of the time value of money and the risks specific to the asset.

If the recoverable amount of an asset or cash-generating unit is estimated to be less than its carrying amount, the carrying amount of the asset or cash-generating unit is reduced to its recoverable amount. An impairment loss is recognized immediately in the administrative expenses line item in the income statement.

Where an impairment loss subsequently reverses, the carrying value of the asset or cash-generating unit is increased to the revised recoverable amount, but so that the increased carrying amount does not exceed the carrying amount which would have been determined had no impairment loss been recognized in prior years. A reversal of an impairment loss is recognized immediately in profit or loss.

Segmental reporting

Operating segments are reported in a manner consistent with the internal reporting provided to the chief operating decision maker of the group, which has been identified as the board of directors.

Share-based payments

The group awards share options in the company, being the parent entity, to certain employees. These are treated as equity-settled share-based payments and are measured at fair value (excluding the effect of non-market-based vesting conditions) at the date of grant. This fair value is expensed over the vesting period, based on the group's estimate of the shares that will eventually vest and adjusted for the effect of non-market-based vesting conditions. Where an option vests in multiple instalments, each instalment is treated as a separate grant with its own vesting period. In the consolidated financial statements, the entire expense is recognized within administrative expenses. At the individual entity level, the expense is transferred to the employing subsidiary and in the company, the benefit transferred is recognized as an increase in investment in subsidiaries, and this increase is then assessed for impairment in accordance with the company's accounting policy.

Financial instruments

1. Financial assets

The group classifies its financial assets in the category of financial assets at amortized cost. Financial assets do not include prepayments.

These assets arise principally from the provision of goods and services to customers (e.g. trade receivables), but also incorporate other types of financial assets where the objective is to hold these assets in order to collect contractual cash flows and the contractual cash flows are solely payments of principal and interest. They are initially recognized at fair value plus transaction costs that are directly attributable to their acquisition or issue, and are subsequently carried at amortized cost using the effective interest rate method, less provision for impairment.

Impairment provisions for current and non-current trade receivables are recognized based on the simplified approach within IFRS 9 using the lifetime expected credit losses. During this process the probability of the non-payment of the trade receivables is assessed. This probability is then multiplied by the amount of the expected loss arising from default to determine the lifetime expected credit loss for the trade receivables. For trade receivables, which are reported net, such provisions are recorded in a separate provision account with the loss being recognized within cost of sales in the consolidated statement of comprehensive income. On confirmation that the trade receivable will not be collectable, the gross carrying value of the asset is written off against the associated provision.

Financial assets held at amortized cost comprise trade and other receivables, contract assets, and cash and cash equivalents in the consolidated statements of financial position.

2. Financial liabilities

The group classifies its financial liabilities in the category of financial liabilities at amortized cost. All financial liabilities are recognized in the statement of financial position when the company becomes a party to the contractual provision or the instrument.

Financial liabilities measured at amortized cost include:

- Trade payables and other short-dated monetary liabilities, which are initially recognized at fair value and subsequently carried at amortized cost using the effective interest rate method.
- Bank and other borrowings, and lease liabilities which are initially recognized at fair value net of any transaction costs directly attributable to the acquisition of the instrument. Such interest-bearing liabilities are subsequently measured at amortized cost using the effective interest rate method, which ensures that the interest expense over the period to repayment is at a constant rate on the balance of the liability carried in the balance sheet. Interest expense in this context includes initial transaction costs and premiums payable on redemption, as well as any interest payable while the liability is outstanding.

Unless otherwise indicated, the carrying values of the group's financial liabilities measured at amortized cost represent a reasonable approximation of their fair values.

3. Share capital

Financial instruments issued by the group are treated as equity only to the extent that they do not meet the definition of a financial liability. The group's ordinary shares are classified as equity. or the purpose of the disclosures given in Note 23, the group considers its capital to comprise its ordinary share capital, its capital reserves (as set out in Note 24), and its retained earnings.

4. Dividends

Dividends to the Company's shareholders are recognized as a liability and deducted from shareholders' equity in the period in which the shareholders' right to receive payment is established.

Significant accounting estimates and judgments

Management is required to make judgments, 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, and accordingly they are reviewed on an ongoing basis. Revisions to accounting estimates are recognized 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.

Depreciation and amortization: Estimates have been adopted for the depreciation and amortization periods relating to property, plant and equipment, externally acquired intangible assets and internally generated intangible assets. These are dealt with in the accounting policy notes set forth above that relate to these areas.

Discount rates: Judgement has been used to determine the assumed discount rate of 9 percent used for recoverability assessment relating to intangible assets referred to in Note 14, and the discount rate of 3.75 percent used in respect of the application of IFRS 16 further described in Note 21. The difference in rate selected reflects assessment of the differing risk profile of the underlying assets.

Credit loss provisions: Judgement has also been used in determining that no provision is required for credit losses on trade receivables, based on the quality of the group's customers and historical loss experience as further described in Note 17.

Multiple service obligations: Where the sales contract involves multiple service obligations the allocation of the transaction price is performed proportionally based on the standalone selling price for each obligation. The way in which management assigns the selling price to each separate performance obligation is based on the cost of satisfying the performance obligation plus an appropriate margin.

Deferred taxation: In recognizing deferred tax assets and liabilities management makes judgements about likely future taxable profits. The carrying values of current tax and deferred tax assets and liabilities are disclosed separately in the consolidated statement of financial position.

Capitalization of development costs: Development costs are capitalized based on an assessment on whether they meet the criteria specified in IAS 38 for capitalization. During each reporting period, an assessment is performed by management to determine time spent developing the intangible assets as a proportion of total time spent in the year. This represents an area of judgement and impacts the value of intangible costs capitalized.

Percentage completion of revenue: Consultancy service projects can span period ends. The group's accounting policies for these projects require revenue and costs to be allocated to individual accounting periods and the consequent recognition at period end of contract assets or liabilities for projects still in progress. Management apply judgement in estimating the total revenue and total costs expected on each project. Such estimates are revised as a project progresses to reflect the current status of the project and the latest information available to management. The service teams regularly review contract progress to ensure the latest estimates are appropriate. Further detail on Contract assets and liabilities are reflected per Note 4.

Classification of asset acquisitions: Certain acquisitions of assets qualify as a business combination if the assets collectively include an input and a substantive process that together significantly contribute to the ability to create outputs. Assets that qualify are accounted for in accordance with the accounting policy for business combinations set forth above.

Impairment of goodwill and intangible assets: Impairment of tangible and intangible assets: if there is an indication that an asset has suffered an impairment loss, the recoverable amount of the asset is estimated in order to determine the extent of the impairment loss (if any). Recoverable amount is the higher of the fair value less costs to sell and value in use. In assessing the value in use, the estimated future cash flows are discounted to their net present value using a pre-tax discount rate that reflects current market assessments of the time value of money and the risks specific to the asset.

3. Segmental analysis

All of the group's revenue in respect of the years ended 31 December 2022 and 2021 was derived from the design, development and marketing of software products with associated implementation and consultancy services, as more particularly described in the Strategic Report. The business is seen as one cash-generating unit and operates as a single operating segment. For management purposes, the group is organized geographically across two principal territories, North America and Europe. Information relating to this geographical split is outlined below.

The information in the following table provides analysis by location of operations. Inter-segment revenues are priced on an arm's length basis.

Year ended 31 December 2022	*North America $'000*	*Europe $'000*	*Total $'000*
Income Statement			
External revenues	25,756	11,031	36,787
Operating profit before interest and tax	1,809	(477)	1,332
Profit before tax*	1,871	(522)	1,349
Finance income	95	(16)	79
Finance expense	(33)	(29)	(62)
Depreciation and amortization	(4,455)	(391)	(4,846)
Adjusted EBITDA*	6,914	25	6,939
Balance Sheet			
Fixed asset additions	240	161	401
Capitalization of internally generated development costs	5,208	-	5,208
Total assets	30,780	23,965	54,745
Total liabilities	(17,108)	(8,012)	(25,120)

Year ended 31 December 2021	*North America $'000*	*Europe $'000*	*Total $'000*
Income Statement			
External revenues	21,088	13,268	34,356
Operating profit before interest and tax	3,092	(1,765)	1,327
Profit before tax*	3,055	(1,828)	1,227
Finance income	1	(35)	(34)
Finance expense	(38)	(28)	(66)
Depreciation and amortization	(3,543)	(430)	(3,973)
Adjusted EBITDA*	7,397	(1,217)	6,180
Balance Sheet			
Fixed asset additions	304	131	435
Capitalization of internally generated development costs	4,271	-	4,271
Total assets	29,930	23,328	53,258
Total liabilities	(15,023)	(6,929)	(21,952)

*Reconciliation from profit before tax to adjusted EBITDA is detailed in Note 5.

Revenues attributable to customers in North America in 2022 amounted to $24,953,000 (2021: $20,434,000). Revenue attributable to customers in the rest of the world amounted to $11,834,000 (2021: $13,922,000) of which $10,468,000 (2021: $10,765,000) was attributable to customers in Europe.

One customer based in the North American segment accounted for 15 percent of the group's revenues in 2022 (2021: no customers over 10 percent).

4. Revenue from contracts with customers

Disaggregation of revenue

Revenue attributable to each of the group's primary geographic markets is analyzed in Note 3 above. The following table provides further disaggregation of revenue in accordance with the IFRS 15 requirement to depict how the nature, amount, timing and uncertainty of revenue and cash flows are affected by economic factors.

	2022 $'000	*2021 $'000*
Perpetual software licenses	5,536	3,931
Consulting and implementation services	8,796	10,390
Maintenance, software subscriptions and hosting	22,455	20,035
	36,787	34,356

Perpetual licenses are recognized at a point in time. Consulting and implementation services, and maintenance, subscription and hosting services, are recognized over time. Further details of the revenue recognition approaches are described in Note 2.

Contract balances

Contract assets and contract liabilities arise because cumulative billings to customers at each balance sheet date do not necessarily equal the amount of revenue recognized on the contracts. Contract assets, historically described as accrued income, represent performance obligations that have been satisfied but not yet billed at the end of the reporting period. Contract liabilities, historically described as deferred revenue, represent transaction price allocated to the performance obligations that are unsatisfied (or partially unsatisfied) as of the end of the reporting period. The group does not have any instances where payment is received in advance for multi-year contracts, all invoicing is annual as per contract terms.

	Contract Assets		*Contract Liabilities*	
	2022 $'000	*2021 $'000*	*2022 $'000*	*2021 $'000*
At 1 January	222	430	13,505	11,985
Transfers in the period from contract assets to trade receivables	(222)	(430)	-	-
Revenue recognized ahead of cash (or rights to cash)	4,085	222	-	-
Transfers in the period from contract liabilities to revenue	-	-	(13,505)	(11,985)
Cash (or rights to cash) received in advance of revenue recognition	-	-	16,501	13,505
At 31 December	4,085	222	16,501	13,505

5. Profit for the year

The profit for the year has been arrived at after charging/(crediting):.

	2022 $'000	2021 $'000
Net foreign exchange (gains)/losses	(629)	191
Research and development costs (excluding amortization and impairment)	4,972	4,332
Amortization of intangible assets	3,949	2,997
Impairment of intangible assets	1,615	-
Depreciation of property, plant and equipment	411	341
Depreciation of right-of-use assets	486	636
Employee share-based payments	761	880

Net foreign exchange gains or losses arise on the translation of cash and trade balances held in currencies other than the functional currency of the entity concerned and are accordingly included in administration expense.

Adjusted EBITDA, which is a company specific measure, defined as earnings before interest, tax, depreciation, amortization, and employee share-based payment charges, is considered to be an important profit measure, since it is widely used by the investment community. It is calculated as follows:

	2022 $'000	2021 $'000
Profit for the year before tax	1,349	1,227
Interest payable	62	101
Interest receivable	(79)	(1)
Amortization of intangible assets	3,949	2,997
Depreciation of property, plant and equipment	411	341
Depreciation of right-of-use assets	486	636
Employee share-based payments	761	880
Adjusted EBITDA	6,939	6,181

6. Auditors' Remuneration

	2022 $'000	2021 $'000
Audit of the financial statements of the group	111	93
Review of interim financial information	29	23
Tax compliance services	19	23

7. Staff costs

	2022 $'000	2021 $'000
Wages and salaries	21,718	21,955
Social security costs	1,780	1,737
Pension contributions	463	515
Employee benefits expense	1,350	1,183
	25,311	25,390

Included within the above are staff costs capitalized as development expenditure amounting to $5,207,000 (2021: $4,271,000). Included within wages and salaries are bonus and sales commission costs amounting to $3,398,000 (2021: $3,695,000).

The average monthly number of employees during the year was made up as follows:

	2022 $'000	2021 $'000
Development and operations	114	114
Sales and management	58	53
	172	167

The above staff costs and the numbers of employees during the year include the executive directors.

The remuneration of all directors was as follows:

	2022 $'000	2021 $'000
Fees and emoluments	1,337	1,382
Pension contributions	20	21
	1,357	1,403

There were six directors during the year (2021: six). During the year no share options (2021: 225,100) were exercised by directors. Pension contributions are to personal defined contribution schemes and have been made for three directors (2021: four) who served during the year.

Full details of directors' remuneration, including share option exercises, are disclosed in the Board Committee Reports on page 19.

Staff costs in the parent company amounted to $440,000 including bonuses (2021: $578,000). The average monthly number of staff of the parent company during the year included one full time and two part time (2021: one and two).

8. Finance income

	2022 $'000	2021 $'000
Income on financial assets measured at amortized cost		
Interest income on bank deposits	94	1
Negative interest income on certain Euro bank balances	(15)	(35)
	79	(34)

9. Finance expense

	2022 $'000	2021 $'000
Interest expense on financial liabilities measured at amortized cost		
Interest on lease liabilities	(25)	(45)
Other interest and finance expense	(37)	(21)
	(62)	(66)

10. Income tax charge

	2022 $'000	2021 $'000
Income tax charge for the year – current tax	(294)	(410)
Income tax charge for the year – deferred tax	(1,932)	-
Total income tax expense for the year	(2,226)	(410)

Amendments to US Code Section 174 now require taxpayers to charge their research expenditures and software development costs to a capital account. Capitalized costs are required to be amortized over five years (15 years for foreign costs). This has led to a significant acceleration of the utilization of the US unrelieved trading losses in 2022, and also resulted in a change in timing difference arising from the capitalization and transfer of development investments.

The charge for the year can be reconciled to the accounting profit as follows:

	2022 $'000	2021 $'000
Profit before tax	1,349	1,227

Tax charge at the UK corporation tax rate of 19 percent (2021: 19 percent)	(256)	(233)
Adjustment for differing rates of corporate taxation in overseas jurisdictions	(132)	(72)
Tax effect of expenses that are not deductible in determining taxable profits	(327)	(231)
Temporary differences arising from the capitalization and transfer of development investments	(2,882)	242
Tax losses not relievable against current tax	(279)	(663)
Utilization and recognition of previously unrecognized losses	1,651	547
Total income tax expense for the year	(2,226)	(410)

The current tax expense represents German corporation tax payable by Sopheon GmbH and US state taxes payable by the group's US subsidiaries.

There is no tax arising on other comprehensive income.

Deferred tax

The group has a potential deferred tax asset arising from its unrelieved trading losses, which has been partially recognized, but the remainder of which has not been recognized owing to uncertainty as to the level and timing of taxable profits in the future.

The group has a deferred tax liability arising from the capitalization of internally generated development costs. Following the recent changes in US tax legislation this liability has been recognized.

The deferred tax which has been recognized in the financial statements is as follows:

	2022 $'000	2021 $'000
Deferred tax asset/(liability) at 1 January	2,557	2,557
Amount recognized during the year	(1,932)	-
Deferred tax asset/(liability) at 31 December	625	2,557

The unrecognized deferred tax asset is made up as follows:

	2022 $'000	2021 $'000
Shortfall of tax depreciation compared to book depreciation	174	171
Effect of timing differences arising from capitalization of internally generated development costs	-	(1,704)
Unrelieved trading losses	8,691	9,105
Unrecognized deferred tax asset at 31 December	8,865	7,572

At 31 December 2022, tax losses estimated at $46.2m (2021: $54.2m) were available to carry forward by the Sopheon group, arising from historical losses incurred. These losses have given rise to a deferred tax asset of $1.4m (2021: $2.6m), offset by a deferred tax liability arising from capitalization of internally generated development costs of $0.7m (2021: $nil) and a further potential deferred tax asset of $8.7m (2021: $9.1m), based on the tax rates currently applicable in the relevant tax jurisdictions.

Of these tax losses, an aggregate amount of $8.1m, representing $1.7m of the potential deferred tax asset (2021: $8.7m and $1.8m respectively) represents pre-acquisition tax losses of Alignent Software, Inc. The future utilization of these losses may be restricted under Section 382 of the US Internal Revenue Code, whereby the ability to utilize net operating losses arising prior to a change of ownership is limited to a percentage of the entity value of the corporation at the date of change of ownership.

11. Profit dealt with in the financial statements of the parent company

The loss dealt with in the financial statements of the parent company for the year ended 31 December 2022 was $363,000 (2021: profit of $1,827,000). The parent company's result includes a partial release of provisions against long-term loans due to the parent company from subsidiaries of $263,000 (2021: $3,228,000). Further details of parent company loans to subsidiaries appear in Note 16.

Advantage has been taken of Section 408 of the Companies Act 2006 not to present an income statement for the parent company.

12. Earnings per share

	2022 $'000	2021 $'000
Basic earnings per share		
(Loss)/profit after tax	(877)	817
Weighted average number of ordinary shares for the purpose of basic earnings per share	10,594	10,442
Earnings per share	(8.28c)	7.82c

	2022 $'000	2021 $'000
Diluted earnings per share		
(Loss)/profit after tax	(877)	817
Diluted (loss)/profit after tax	(877)	817
Weighted average number of ordinary shares for the purpose of diluted earnings per share	10,594	10,939
Diluted earnings per share	(8.28c)	7.47c

The profit attributable to ordinary share holders and the weighted average number of shares for the purpose of calculating the diluted earning per ordinary share are the same as those used for calculating the basic earnings per share for 2022. This is because the 840,887 share options to subscribe for ordinary shares (details of which are set out in Note 28) would have the effect of reducing the loss per share.

For the purpose of calculating the diluted earnings per ordinary share in 2021, in respect of the outstanding 940,942 share options (details of which are set out in Note 28), the treasury stock method is used. This assumes that options to subscribe for Sopheon shares at prices below the average share price prevailing during the year are exercised on 1st January of the relevant year (or, if later, on the date of grant) and that the proceeds from exercise of such options are reinvested in treasury shares at the average price prevailing during the year.

13. Property, plant and equipment

Group	*Computer Equipment $'000*	*Furniture & Fittings $'000*	*Total $'000*
Cost			
At 1 January 2021	3,421	607	4,028
Additions	404	31	435
Exchange differences	(47)	(15)	(62)
At 1 January 2022	3,778	623	4,401
Fully depreciated items written off	(1,839)	(346)	(2,185)
Additions	399	2	401
Exchange differences	(41)	(10)	(51)
At 31 December 2022	2,297	269	2,566
Accumulated Depreciation			
At 1 January 2021	2,959	541	3,500
Depreciation charge for the year	299	42	341
Exchange differences	(34)	(12)	(46)
At 1 January 2022	3,224	571	3,795
Fully depreciated items written off	(1,839)	(346)	(2,185)
Depreciation charge for the year	381	30	411
Exchange differences	(30)	(9)	(39)
At 31 December 2022	1,736	246	1,982
Carrying Amount			
At 31 December 2022	561	23	584
At 31 December 2021	554	52	606

At the end of 2022 the group took the decision to write off assets acquired prior to 1 January 2016 that have been fully depreciated.

Company
The company has no property, plant and equipment.

14. Intangible assets

Group	*Development Costs (Internally Generated) $'000*	*Technology & IPR $'000*	*Goodwill $'000*	*Total $'000*
Cost				
At 1 January 2021	33,448	-	1,022	34,470
Additions (internally generated)	4,271	-	-	4,271
Acquisition of business	-	2,250	563	2,813
At 1 January 2022	37,719	2,250	1,585	41,554
Additions (internally generated)	5,207	-	-	5,207
Acquisition of business	-	-	1,480	1,480
At 31 December 2022	42,926	2,250	3,065	48,241
Amortization and impairment				
At 1 January 2021	26,607	-	-	26,607
Amortization charge for the year	2,997		-	2,997
At 1 January 2022	29,604	-	-	29,604
Amortization charge for the year	3,386	563	-	3,949
Impairment charge for the year	1,615	-	-	1,615
At 31 December 2022	34,605	563	-	35,168
Carrying Amount				
At 31 December 2022	8,321	1,687	3,065	13,073
At 31 December 2021	8,115	2,250	1,585	11,950

The amortization period for the internally generated development costs relating to the group's software products is four years. Goodwill that arose in prior periods is not amortized. The residual goodwill arising on historic acquisitions is attributable to the enhanced market position of the group, and the completeness of the solution that Sopheon can offer the market. The recoverable amount of the goodwill can be underpinned on a value in use basis by the expected performance of the group, which is seen as a single cash-generating unit.

The valuation used for this purpose is based on cash flow projections for the next five years, and thereafter for an indefinite period at a growth assumption of 3 percent (2021: 3 percent). The discount rate used was 9 percent (2021: 9 percent). Sensitivity analysis has been performed on these projections, specifically changes in assumed annual revenue growth, profit margin growth and terminal growth rate. This demonstrates significant valuation headroom above the carrying value of goodwill.

On 20 December 2021 the group announced the acquisition of the business and certain assets and liabilities of ROI Blueprints LLC, a cloud-based project and portfolio SaaS solution designed to help organizations drive operational execution management of corporate initiatives. The initial consideration of $1,500,000 comprised cash of $1,460,000 (of which $10,000 was deferred) with the balance satisfied by the assumption of current assets with a fair value of $36,000 and contract liabilities with a fair value of $76,000. Further contingent consideration of up to $1,500,000 is payable pursuant to an earn-out which has been estimated at $1,312,500 based on expectations of future performance. The technology and intellectual property rights ("IPR") acquired with the acquisition have been recorded at a fair value of $2,250,000 and the balance of the excess of the consideration over the fair value of the net liabilities acquired of $563,000 has been allocated to goodwill comprising expected synergies and other intangible assets that do not qualify for separate recognition. The technology and IPR is being amortized over 4 years.

On 18 May 2022 the group announced the acquisition of Solverboard, a cloud-based business, based in the UK and specializing in the front-end of innovation management. Initial consideration comprised £500,000 in cash and £250,000 in shares issued at £6 per share. An additional, contingent deferred earn-out of up to £1.55 million may be payable over two years, linked to Annual Recurring Revenue ("ARR") targets. The contingent deferred consideration may be satisfied by the issue of up to £900,000 in shares issued at £6 per share, with the balance in cash. The initial consideration of £750,000 ($931,000) has been allocated to goodwill. The contingent deferred consideration has been assessed at a fair value of £445,000 ($549,000) and has also been allocated to goodwill. No separately identifiable technology was identified as part of the acquisition.

Prior to the acquisition of ROI Blueprints and Solverboard, the group had embarked on its own development of a next-generation platform for new cloud-based applications. In the light of both acquisitions and other factors, the group has revisited its original approach. As a consequence, a full impairment provision has been made against capitalized historic development costs associated with the group's own cloud platform development, amounting to $1.6m, which is included in research and development expense.

Company
The company has no intangible assets.

15. Investment in subsidiaries

	Company *$'000*
At cost less amounts provided	
At 31 December 2021	8,247
Exchange difference	(879)
At 31 December 2022	7,368

Details of the company's subsidiaries at 31 December 2022 are set out below. Companies marked with an asterisk (*) are held via Sopheon UK Limited. The common stock of Alignent Software, Inc. and Sopheon Corporation, Minnesota, USA are held by Sopheon Corporation, Delaware, USA. The share capital of Sopheon Corporation, Delaware, USA and Sopheon GmbH are held by Sopheon NV.

Name of Company Place of Incorporation	*Nature of Ownership*	*Proportion of Voting Rights Held*	*Nature of Business*
Sopheon Corporation 7900 International Drive Bloomington, MN 55425, USA	Common Stock	100 percent	Software sales and services
Sopheon Corporation 6870 W 52nd Avenue Arvada, CO 80002, USA	Common Stock	100 percent	Software development and sales
Alignent Software, Inc. 7900 International Drive Bloomington, MN 55425, USA	Common Stock	100 percent	Software sales and services
Sopheon NV Kantoorgebouw Officia 1 De Boelelaan 7, 1083 HJ Amsterdam, The Netherlands	Ordinary Shares	100 percent	Software sales and services
Sopheon UK Limited Dorna House One, 50 Guildford Road West End GU24 9PW, UK	Ordinary Shares	100 percent	Software sales and services
Sopheon GmbH Lise-Meitner-Str. 10, D-64293 Darmstadt, Germany	Ordinary Shares	100 percent	Software sales and services
Applied Network Technology Ltd* Dorna House One, 50 Guildford Road West End GU24 9PW, UK	Ordinary Shares	100 percent	Employee Share Ownership Trust

Sopheon plc has given a guarantee under S479A of the Companies Act 2006 to Sopheon UK Limited and that entity is included in the group's consolidated financial statements. Accordingly, no statutory audit will be performed in respect of Sopheon UK Limited for 2022 (2021: No statutory audit).

16. Other receivables

	Group		Company	
	2022 $'000	*2021 $'000*	*2022 $'000*	*2021 $'000*
Other receivable	19	19	-	-
Amounts due from subsidiary undertakings (net of provisions)	-	-	16,793	16,793
	19	19	16,793	16,793

The other receivable represents a deposit paid in respect of a property leased by the group.

A partial credit loss provision of $12,239,000 (2021: $15,962,000) has been made against amounts totaling $29,032,000 (2021: $32,755,000) owed to the parent company by subsidiary undertakings, which are due after more than one year and are subordinated to the claims of all other creditors.

The expected credit loss provision against amounts due to the parent company from subsidiary undertakings has been assessed using a Stage 3 approach as detailed below.

	2022 $'000	*2021 $'000*
At 1 January	15,962	19,491
Net repayments	(254)	(3,884)
Net management charges	552	643
Partial release of provision		-
Exchange adjustments	(4,021)	(288)
At 31 December	12,239	15,962

17. Trade and other receivables

	Group		Company	
	2022 $'000	*2021 $'000*	*2022 $'000*	*2021 $'000*
Trade receivables	13,570	11,802	-	-
Other receivables	90	26	61	97
Total receivables	13,750	11,828	61	97
Prepayments	1,128	1,132	22	40
	14,788	12,960	83	137
Contract assets	4,085	222	-	-
	18,873	13,182	83	137

The carrying value of trade and other receivables classified at amortized cost approximates fair value. Contract assets includes $3.1m that is due in more than one year.

The group has adopted the IFRS 9 simplified approach to measuring expected credit losses using a lifetime expected credit loss provision for trade receivables and contract assets. As further detailed in Note 22, the group's customers almost exclusively comprise major international corporations of good credit standing mostly based in the USA and the EU, and the group's historical credit loss experience is negligible. Accordingly, the trade receivables and contract assets are assessed as homogenous for the purposes of grouping for credit risk, and expected loss rate is expected to be negligible leading to no provision for impairment being recorded.

18. Cash and cash equivalents

	Group		Company	
	2022 *$'000*	*2021* *$'000*	*2022* *$'000*	*2021* *$'000*
Cash at bank	17,434	18,261	7,054	7,375
Short-term bank deposits	3,687	5,932	-	-
	21,121	24,193	7,054	7,375

Cash and cash equivalents comprise cash held by the group, bank current accounts and short-term bank deposit accounts with maturities of three months or less and bearing interest at variable rates. The carrying amount of these assets represents a reasonable approximation to their fair value.

Included in cash at bank of the group is an amount of $61,000 (2021: $68,000) held by the group's employee share ownership trust.

19. Trade and other payables

	Group		Company	
	2022 *$'000*	*2021* *$'000*	*2022* *$'000*	*2021* *$'000*
Current liabilities				
Trade payables	1,099	858	30	26
Other payables	1,266	1,340	156	138
Tax and social security costs	1,509	1,753	-	-
Accruals	3,732	3,717	310	313
	7,606	7,668	496	477
Non-current liabilities				
Other payables	549	-	-	-
	8,155	7,668	496	477

Trade payables principally comprise amounts outstanding for trade purchases and ongoing costs. Included in other payables are amounts representing the fair value of deferred contingent consideration of $1,125,000 in respect of the acquisition of the business of ROI Blueprints LLC and of $549,000 in respect of the acquisition of the business of Solverboard. Tax and social security costs include amounts repayable to the Dutch government in connection with COVID related subsidies received.

The directors consider that the carrying amounts of trade and other payables represent a reasonable approximation to their fair values.

20. Borrowings

The group had no borrowings at 31 December 2022 or at 31 December 2021.

21. Leases

Lease liabilities represent rental payments by the group for leased office properties and leased vehicles.

Right-of-use assets

	Leased Buildings $'000	*Leased Vehicles $'000*	*Total $'000*
At 1 January 2021	794	233	1,027
Additions and lease extensions in year	245	162	407
Depreciation	(522)	(113)	(635)
Exchange differences	(26)	(21)	(47)
At 1 January 2022	491	261	752
Additions and lease extensions in year	207	12	219
Depreciation	(399)	(88)	(487)
Exchange differences	(17)	(17)	(34)
At 31 December 2022	282	168	450

Lease liabilities

	Leased Buildings $'000	*Leased Vehicles $'000*	*Total $'000*
At 1 January 2021	825	236	1,061
Additions in year	245	162	407
Interest expense	35	10	45
Lease payments	(566)	(119)	(685)
Exchange differences	(27)	(22)	(49)
At 1 January 2022	512	267	779
Additions in year	206	12	218
Interest expense	18	7	25
Lease payments	(428)	(94)	(522)
Exchange differences	(17)	(19)	(36)
At 31 December 2022	291	173	464

The maturity of the lease liabilities is as follows:

At 31 December 2022	*Carrying Amount $'000*	*Contractual Cash-Flow $'000*	*Less than One Year $'000*	*One to Two Years $'000*	*Two to Five Years $'000*
Leased buildings	291	305	202	69	34
Leased vehicles	173	181	84	78	19
Total	464	486	286	147	53

At 31 December 2021	*Carrying Amount $'000*	*Contractual Cash-Flow $'000*	*Less than One Year $'000*	*One to Two Years $'000*	*Two to Five Years $'000*
Leased buildings	512	560	436	124	-
Leased vehicles	267	280	96	85	99
Total	779	840	532	209	99

Leased Buildings

Buildings are leased for office space under leases which typically run for a period of 1-5 years and lease payments are at fixed amounts. Some leases for office buildings include extension options exercisable up to one year before the end of the cancellable lease term.

Leased Vehicles

The group leases vehicles for qualifying employees with a standard lease term of 4 years with fixed lease payments. The group does not purchase or guarantee the future value of leased vehicles.

Leased Equipment

The group has a small number of leases of office equipment. The group considers these leases to be of low value or short term in nature and therefore no right-of-use assets or lease liabilities are recognized for these leases.

22. Financial instruments

Categories of financial assets and liabilities

The following table sets out the categories of financial instruments held by the group. All of the group's financial assets are in the category of financial assets measured at amortized cost, and all of its financial liabilities are in the category of financial liabilities measured at amortized cost.

1. Financial assets

		Group		*Company*	
	Notes	*2022 $'000*	*2021 $'000*	*2022 $'000*	*2021 $'000*
Current financial assets					
Trade receivables	17	13,570	11,802	-	-
Other receivables	17	90	26	61	97
Amounts due from subsidiary companies	16	-	-	16,793	16,793
Contract assets	17	4,085	222	-	-
Cash and cash equivalents	18	21,121	24,193	7,054	7,375
		38,866	36,243	23,908	24,265
Non-current financial assets					
Other receivable	16	19	19	-	-

The group does not have any financial assets in any other categories.

2. Financial liabilities

		Group		Company	
	Notes	2022 $'000	2021 $'000	2022 $'000	2021 $'000
Current financial liabilities					
Trade payables	19	1,099	858	30	26
Other payables	19	1,266	1,340	156	138
Accruals	19	3,732	3,717	310	313
Lease liabilities	21	271	474	-	-
		6,368	6,389	496	477
Non-current financial liabilities					
Lease liabilities	21	193	305	-	-
Other payables	19	549	-	-	-
		742	305	-	-
		7,110	6,694	496	477

Financial instrument risk exposure and management

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.

There have been no 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 disclosed in this note.

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
- Loans and borrowings
- Lease liabilities

General objectives, policies and processes

The board has overall responsibility for the determination of the group's risk management objectives and policies and, while 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 finance function. The board receives quarterly reports from the group finance director through which it reviews the effectiveness of the processes put in place and the appropriateness of the objectives and policies it sets. The group's risk management procedures are also reviewed periodically by the audit committee.

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:

a) Credit risk

Credit risk arises principally from the group's trade receivables, other receivables and contract assets. It is the risk that the counterparty fails to discharge its obligations in respect of the instrument.

The group's software is principally marketed at major international corporations of good credit standing, and the group's historical bad debt experience is negligible. Due to the potentially large size of certain individual sales, in a particular year one customer can account for a substantial proportion of revenues recorded. However, such concentrations rarely persist for multiple years and therefore the directors do not believe that the group is systematically exposed to credit risk concentration in respect of particular customers. In 2022 one individual customer accounted for 16 percent of group revenues (2021: None more than 10 percent).

Credit risk also arises from cash and cash equivalents and deposits with banks and financial institutions. At the year-end the group was holding a proportion of its deposits and bank balances with each of Lloyds Banking Group plc, Rabobank Amsterdam, and Silicon Valley Bank (See Note 29).

A feature of recent years is that major corporations have slowed down payments or insist on long credit terms, and this is reflected in the ageing profile of the group's receivables. However, as noted above the group's bad debts experience is negligible. Impairments that do arise are not from credit defaults, but principally from disagreements with a very small number of former customers over their responsibility for renewal fees for maintenance or hosting contracts. Sopheon's policy is to pursue collection of such fees where invoiced and contractually enforceable, but to derecognize revenue if collection is uncertain.

The following is an analysis of the group's trade receivables identifying the totals of trade receivables that are current and those that are past due but not impaired:

	Total *$'000*	*Current* *$'000*	*Past Due +30 days* *$'000*	*Past Due +60 days* *$'000*
At 31 December 2022	13,570	12,977	217	376
At 31 December 2021	11,802	9,577	1,715	510

The following is an analysis of the group's provisions against trade receivables, analyzed between the geographical segments in which the group's operations are located:

	2022			*2021*		
	Gross Value *$'000*	*Provision* *$'000*	*Carrying Value* *$'000*	*Gross value* *$'000*	*Provision* *$'000*	*Carrying Value* *$'000*
Trade receivables						
North America	9,991	-	9,991	8,911	-	8,911
Europe	3,579	-	3,579	2,891	-	2,891
	13,570	-	13,570	11,802	-	11,802

The group records impairment losses on its trade receivables separately from the gross amounts receivable. No impairment losses were recorded during 2022 or 2021. The main factors used in assessing the impairment of the group's trade receivables are the age of the balances and the circumstances of the individual customer.

The company has recognized a proportion of the amounts due to it from its US subsidiaries, taking into account their current profitability and cash holdings. Full details are set out in Note 16 and 27. The company has provided in full for the remaining amounts due from subsidiaries. The company is exposed to credit risk in respect of its cash and cash equivalents, which are held in the form of current and short-term deposit accounts with leading UK, US and European banking institutions (See Note 29).

b) Liquidity risk

Liquidity risk arises from the group's management of working capital and more particularly its ability to be consistently cash generative after finance charges and principal repayments on its debt instruments. It is the risk that the group will encounter difficulties in meeting its financial obligations as they fall due.

The group's policy is to maintain significant cash balances, short-term bank deposits and facilities with a view to having sufficient cash to meet its liabilities when they become due. The board annually approves budgets including cash flow projections for each of the operating companies within the group and receives regular information as to cash balances held and progress against budget.

The following table sets out an analysis of the contractual maturity of the group's and the company's financial liabilities that must be settled gross, based on exchange rates prevailing at the relevant balance sheet date.

At 31 December 2022	*On Demand or Within Six Months $'000*	*Within One Year $'000*	*Within Two Years $'000*	*Within Five Years $'000*	*Total $'000*
Trade and other payables	1,240	562	1,112	-	2,914
Lease liabilities – contractual cash flow	158	128	147	53	486
Total financial liabilities	1,398	690	1,259	53	3,400

At 31 December 2022	*On Demand or Within Six Months $'000*	*Within One Year $'000*	*Within Two Years $'000*	*Within Five Years $'000*	*Total $'000*
Trade and other payables	989	500	625	188	2,302
Lease liabilities – contractual cash flow	363	169	209	99	840
Total financial liabilities	1,352	669	834	287	3,142

At 31 December 2022	*On Demand or Within Six Months $'000*	*Within One Year $'000*	*Within Two Years $'000*	*Within Five Years $'000*	*Total $'000*
Trade and other payables	186	-	-	-	186
Total financial liabilities	186	-	-	-	186

At 31 December 2022	*On Demand or Within Six Months $'000*	*Within One Year $'000*	*Within Two Years $'000*	*Within Five Years $'000*	*Total $'000*
Trade and other payables	164	-	-	-	164
Total financial liabilities	164	-	-	-	164

c) Market risk

Market risk arises from the group's use of interest-bearing and foreign currency financial instruments. It is the risk that the future cash flows of a financial instrument will fluctuate because of changes in interest rates (interest rate risk) or foreign exchange rates (currency risk). The group does not have any financial instruments that are publicly traded securities and is not exposed to other price risk associated with changes in the market prices of such securities.

d) Interest rate risk

The group has no borrowings, other than lease liabilities, in respect of which lease payments are fixed and do not carry interest rate risk.

The group invests its surplus cash in bank deposits denominated in US Dollars, Euros or Sterling, which bear interest based on short-term money market rates, and in doing so exposes itself to fluctuations in money market interest rates. The group's surplus cash held in the form of bank deposits at 31 December 2022 was $3,668,000. During 2022 interest rates on money market deposits rose in line with central bank rate setting. The annualized effect of an increase or decrease of 0.5 percent in the average interest rate received on the group's bank deposits at the balance sheet date would result in an increase or reduction in the group's interest income of $18,000.

The group's cash balances held in bank current accounts do not attract interest, with the exception of certain Euro bank balances on which negative interest rates applied during part of the year.

The company had no interest-bearing bank deposits at the balance sheet date.

e) Currency risk

The group's policy is, where possible, to allow group entities to settle liabilities denominated in the functional currency with cash generated from their own operations in that currency. The group also maintains cash and bank deposits in the currencies that are the functional currencies of its operating entities, which are the US Dollar, the Euro and Sterling.

The group is exposed to currency risk in respect of foreign currency denominated bank deposits and bank loans. Taking into account the fact that a large proportion of the group's income and expenditure arise in US Dollars and, to a lesser extent, in Euros, the group's policy is not to seek to hedge such currency risk.

Foreign currency risk also arises where individual group entities enter into transactions denominated in currencies other than their functional currency, with fluctuations in exchange rates giving rise to gains or losses in the income statement. Where the foreign currency risk to the group is significant, consideration is given to hedging the risk through the forward currency market and, while this would be an economic hedge of the cash flow risk, the group does not employ hedge accounting.

The following table shows the effects, all other things being equal, of changes to exchange rates on the group's profit after tax and on the exchange differences on retranslation of the assets and liabilities of foreign operations that is recognized directly in equity. It illustrates the effects if the exchange rates for Sterling and the Euro against the US Dollar had been higher or lower than those that actually applied during the year and at the year-end.

	2022	*2021*	*2022*	*2021*
	Increase/ (Decrease) in Profit After Tax	*Increase/ (Decrease) in Profit After Tax*	*Effect on Exchange Differences on Translation of Assets and Liabilities of Foreign Operations*	
	$'000	*$'000*	*$'000*	*$'000*
Strengthening of Sterling in US Dollar terms by 10c	(54)	60	582	429
Weakening of Sterling in US Dollar terms by 10c	54	(59)	(580)	(430)
Strengthening of Euro in US Dollar terms by 10c	222	158	847	642
Weakening of Euro in US Dollar terms by 10c	(221)	(157)	(847)	(643)

The company holds certain assets, mainly bank deposits, and liabilities denominated in the functional currencies of its principal operating subsidiaries, which are the US Dollar, the Euro and Sterling. The following table shows the effects, all other things being equal, of changes to exchange rates at the year-end on the profit after tax of the company. It is based on the company's assets and liabilities at the relevant balance sheet date.

	2022	*2021*
	Increase/(Decrease) in Profit After Tax	
	$'000	*$'000*
Strengthening of Sterling in US Dollar terms by 10c	180	237
Weakening of Sterling in US Dollar terms by 10c	(180)	(237)
Strengthening of Euro in US Dollar terms by 10c	324	301
Weakening of Euro in US Dollar terms by 10c	(324)	(301)

f) Capital

The group considers its capital to comprise its share capital, its capital reserves (as set out in Note 24) and its retained earnings. The group is not subject to any externally imposed capital requirements. In managing its capital, the group's primary objective is to support the development of the group's activities through to the point where they are cash generative on a sustained basis.

The group's share capital is all equity capital and is summarized in Note 23.

23. Share capital

Issued and fully paid	*2022 Number*	*2022 $'000*	*2021 Number*	*2021 $'000*
Ordinary shares of 20 pence each	10,624,354	3,248	10,512,216	3,219

Throughout the year, the company has had in issue one class of ordinary shares, which have at no time carried any right to fixed income. During the year 70,471 ordinary shares were issued in connection with the exercise of options at exercise prices ranging from 85p to 468p and 41,667 ordinary shares were issued in connection with the acquisition of Solverboard at a price of £6 per share.

24. Capital reserves

Group	*Share Premium $'000*	*Equity Reserve $'000*	*Special Reserve $'000*	*Total $'000*
At 1 January 2021	2,400	1,925	5,073	9,398
Issues of shares	562	-	-	562
Recognition of share-based payments	-	880	-	880
Lapsing or exercise of share options	-	(340)	-	(340)
At 1 January 2022	2,962	2,465	5,073	10,500
Issues of shares	531	-	-	531
Recognition of share-based payments	-	761	-	761
Lapsing or exercise of share options	-	(390)	-	(390)
Purchase of shares by EBT	-	(155)	-	(155)
At 31 December 2022	3,493	2,681	5,073	11,247

Company	*Share Premium $'000*	*Equity Reserve $'000*	*Special Reserve $'000*	*Total $'000*
At 1 January 2021	2,400	1,925	5,073	9,398
Issues of shares	562	-	-	562
Recognition of share-based payments	-	880	-	880
Lapsing or exercise of share options	-	(340)	-	(340)
At 1 January 2022	2,962	2,465	5,073	10,500
Issues of shares	531	-	-	531
Recognition of share-based payments	-	761	-	761
Lapsing or exercise of share options	-	(390)	-	(390)
Purchase of shares by EBT	-	(155)	-	(155)
At 31 December 2022	3,493	2,681	5,073	11,247

The equity reserve comprises the fair value of share-based payments made to employees pursuant to the group's share option schemes, offset by credits from the expiry, lapsing or exercise options.

In addition, investment by the group's Employee Benefit Trust (the "EBT") in the company's shares is deducted from equity in the consolidated balance sheet as if they were treasury shares, by way of deduction from the equity reserve. At 31 December 2022, the EBT held 56,834 ordinary shares of 20p each in the company (2021: 36,472) which represents 0.5 percent (2021: 0.4 percent) of the company's ordinary share capital. The equity reserve includes a deduction of $201,000 (2021: $46,000) which represents the cost of the shares held by the EBT at 31 December 2022. The additional shares purchased by the EBT were acquired at an average price of 597p per share.

The purpose of the EBT is to facilitate the company's policy of offering participation in the ownership of its shares to employees for reward and incentive purposes. At 31 December 2022 and at 31 December 2021, no shares held by the EBT were under option or had been gifted to any employees. Arrangements for the distribution of benefits to employees will be made at the EBT's discretion in such manner as the EBT considers appropriate. Administration costs of the EBT are accounted for in the profit and loss account of the company as they are incurred.

The special reserve is a non-distributable reserve arising from a capital reorganization in 2013, which may be used, amongst other purposes as approved by the court, for the same purposes as if it were a share premium reserve.

25. Dividends

	2022 $'000	*2021 $'000*
Dividends paid in year		
Final dividend for 2021 of 3.25p per share paid in July 2022	408	460

The directors are proposing a final dividend of 3.25 pence per share in respect of the year ended 31 December 2022 amounting to £345,000 (equivalent to $416,000 at year end exchange rate).

26. Retirement benefit plans

The group operates defined contribution retirement benefit plans which employees are entitled to join. The total expense recognized in the income statement of $463,000 (2021: $515,000) represents contributions paid to such plans at rates specified in the rules of the plans.

27. Related party transactions

Details of transactions between the group and related parties are disclosed below.

Compensation of key management personnel

Details of directors' remuneration are given in Note 7. The total remuneration of executive directors and members of the group's executive management committee during the year was as follows:

	2022 $'000	*2021 $'000*
Emoluments and benefits	2,902	3,612
Pension contributions	48	66
Share-based payments	707	786
	3,657	4,464

There group's executive management committee reduced in size in 2022.

Transactions with related parties who are subsidiaries of the company

The following is a summary of the transactions of the company with its subsidiaries during the year:

	2022 $'000	2021 $'000
Net amounts advanced to/(repaid by) subsidiaries	254	(3,884)
Net management charges to subsidiaries	552	643

The amounts owed by subsidiary companies to the parent company at 31 December 2022 totaled $29,032,000 (2021: $32,755,000). An amount of $16,793,000 (2021: $16,793,000), due from the group's US and Dutch subsidiary companies, has been recognized in the parent company balance sheet, the balance of amounts due from subsidiaries remaining subject to full provision. Amounts owed by subsidiary companies to the parent company are unsecured and are subordinated to the claims of all other creditors.

During 2022 and 2021, the company granted share options to employees of subsidiary companies. Details of grants of share options are disclosed in Note 28.

Other related party transactions

There were no other related party transactions during the year under review or the previous year.

28. Share-based payments

Equity-settled share option schemes

The group has a number of share option schemes for all employees. Options are exercisable at a price equal to the market price on the date of grant. The normal vesting periods are as set out below.

	Vesting
Sopheon plc (USA) stock option plan	In three equal tranches between the first and third anniversary of grant
Sopheon UK approved share option scheme	On third anniversary of grant
Sopheon UK unapproved share option scheme	Immediate or as per USA plan
Sopheon NV share option scheme	Immediate or as per USA plan

Details of the share options outstanding during 2021 and 2020 are as follows:

	Number of Share Options	*Weighted Average Exercise Price £*
Outstanding at 1 January 2021	942,294	4.23
Options granted in 2021	318,350	8.83
Options exercised in 2021	(309,328)	1.51
Options lapsed in 2021	(10,374)	8.27
Outstanding at 1 January 2022	940,942	6.63
Options granted in 2022	74,416	7.78
Options exercised in 2022	(70,471)	2.73
Options lapsed in 2022	(104,000)	7.77
Outstanding at 31 December 2022	840,887	6.92
Exercisable at 31 December 2022	639,783	6.46
Exercisable at 31 December 2021	625,762	5.64

During 2022, share options were exercised over 70,471 ordinary shares at exercise prices ranging from 85p to 775p. During 2021, share options were exercised over 309,328 ordinary shares at exercise prices ranging from 85p to 775p. The options outstanding at the end of the year have a weighted average contractual life of 6.4 years (2021: 7.0 years).

During the year share options were granted on 13 February 2022 when the exercise price of options granted was 890p and the estimated fair value was 527p and on 28 October 2022 when the exercise price of options granted was 550p and the estimated fair value was 326p. During the preceding year share options were granted on 14 May 2021, when the exercise prices of options granted were 845p and 900p and the estimated fair values were 500p and 491p respectively, and were also granted on 2 June 2021, when the exercise price of options granted was 875p and the estimated fair value was 518p.

The fair values for options granted are calculated using the Black-Scholes option-pricing model. The principal assumptions used were:

Date of grant	*February 2022*	*October 2022*	*May 2021*	*May 2021*	*June 2021*
Share price at time of grant	890p	550p	845p	845p	875p
Exercise price	890p	550p	845p	900p	875p
Expected volatility	40%	40%	40%	40%	40%
Risk-free rate	5%	5%	5%	5%	5%
Expected dividend yield	0.4%	0.6%	0.4%	0.4%	0.4%

The expected contractual life of the options used was five to ten years. Expected volatility was determined by reference to the historical volatility of the company's share price in the period before the date of grant.

29. Post balance sheet events

On Friday 10 March, Silicon Valley Bank USA ("SVBUS") and Silicon Valley Bank UK ("SVBUK") had operations halted by the California Department of Financial Protection and Innovation and the Bank of England respectively. Immediately prior to the circumstances described above Sopheon had $23.7m in total cash reserves, of which $3.4m (14 percent) was held with SVBUS and $5.9m (25 percent) was held with SVBUK, both of which have now been fully recovered thanks to swift interventions by the respective governments. Sopheon proactively spreads cash deposits across several financial institutions, and the remaining $14.4m cash reserves was held with well-known high street banks in the UK, Germany and the Netherlands and accordingly, the Board believes that the group would have remained in a secure financial position even without the full recovery of the SVBUS and SVBUK balances. There are no other post balance sheet events that warrant disclosure in the financial statements.

Directors

Andrew Michuda, Executive Chairman. Andy Michuda was appointed chief executive officer of Sopheon in 2000 and then took the role of executive chairman in 2021, handing over the CEO role to Greg Coticchia. From 1997 to 2000, he served as chief executive officer and an executive director of Teltech Resource Network Corporation, which was acquired by Sopheon. Prior to joining Sopheon, Andy held senior leadership positions at Control Data.

Greg Coticchia, Chief Executive Officer. Greg Coticchia joined Sopheon as President in 2020, and was appointed CEO and director in 2021. He is a recognized entrepreneur, business leader and author with over thirty years' experience in software products and services. Most recently Greg established the Master's Program in Product Management at Carnegie Mellon University. He has held executive roles in a number of organizations ranging from startups to $1bn revenue where he has been responsible for driving both organic and acquisition-led growth.

Arif Karimjee, ACA, Chief Financial Officer. Arif Karimjee joined Sopheon as chief financial officer in 2000. Arif served as an auditor and consultant with Ernst & Young in the United Kingdom and Belgium from 1988 until joining Sopheon.

Barry Mence, Non-Executive Director. Barry Mence served as executive chairman of Sopheon since co-founding it in 1993, handing over the chairman role to Andy Michuda in 2021 and reverting to a non-executive role. He remains a substantial shareholder of the company. From 1976 to 1990, Barry was the major shareholder and group managing director of the Rendeck Group of Companies, a software and services group based in the Netherlands.

Stuart Silcock, FCA, Non-Executive Director. Stuart Silcock has served as a director of Sopheon since its inception in 1993 when he was one of the founding members of the company. Since 1982 Stuart has been a principal Partner in Lawford & Co chartered accountants. Stuart was a non-executive director of Brown and Jackson plc for four years from 2001 and has held a number of other directorships in the United Kingdom.

Daniel Metzger, Non-Executive Director. Dan Metzger was until 1998 Lawson Software's EVP Marketing, where he helped the company grow its revenues from $13m to $400m. Since then he has held similar roles at Parametric Technologies, and also at auxilium and nQuire, subsequently sold to Parametric and Siebel respectively. As a strategy consultant, Dan has helped numerous technology companies reach and exceed their growth objectives.

Barnaby Kent, Non-Executive Director. Prior to its recent $1.3 billion acquisition by a London-based private equity firm in 2022, Barnaby (Barney) Kent spent nearly a decade at Ideagen plc, a software company supplying regulatory, compliance and collaboration solutions to over 10,000 organizations around the world. In his role as COO, Kent led Ideagen to unprecedented growth and financial delivery. Kent has more than 20 years' experience within the technology sector and was previously CEO of Plumtree Group prior to joining Ideagen.

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