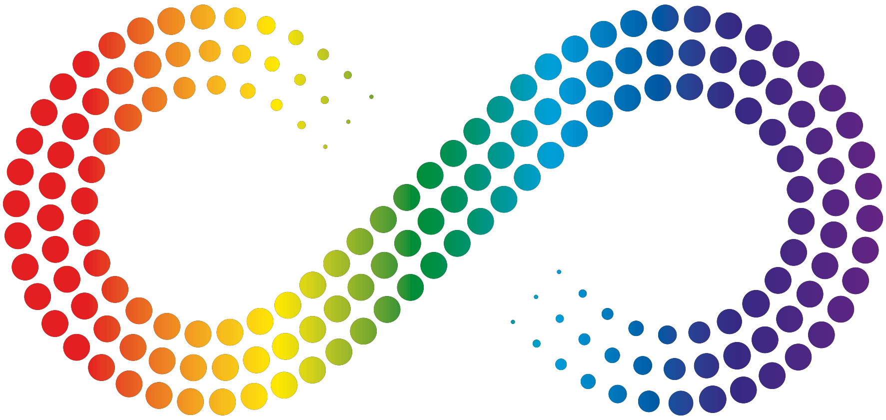


possibilities

NANOCO GROUP

Annual Report
and Accounts 2022

Infinite possibilities

Our platform technology can be customised for almost any application, from sensing to display, and from horticultural lighting to medical applications.

That's what we mean by infinite possibilities.

Strong foundations in our technology platform

Nanoco is a market leader in the research, development, licensing and large scale manufacture of novel nanomaterials for use in various commercial applications.

Platform technology

We can design and create nanomaterials for a host of different applications

→ **more on p5**

IP portfolio

Our IP portfolio protects our unique production process and materials, with significant process know-how

→ **more on p18**

Volume production

Our unique production process allows controllable manufacture on a large scale

→ **more on p20**

Experienced team

Our R&D team has many years of specialist experience creating novel nanomaterials

→ **more on p34**

Our year in brief

2022 was successful year with a number of significant achievements

→ Signed major contract extension to deliver final product validation of two materials for sensing applications.

→ Delivered all technical milestones for our important European electronics and Asian chemical customers.

→ Continued expansion of our range of materials for use in infra-red sensing applications.

→ Co-located R&D and scale up activities in Runcorn production facility with no loss of capability.

→ All five patents and all 47 associated claims in the litigation with Samsung were upheld by the Patent Trial and Appeal Board ('PTAB').

→ Jury trial in Texas expected in the short term.

→ Equity issue raised net £5.4m, cash runway extended to CY25, beyond expected organic business cash breakeven point.

Revenue	Adjusted LBITDA	Billings	Cash
£2.5m	(£2.1m)	£2.7m	£6.8m
+18%	+26%	+55%	+77%

Revenue

→ Growth in revenue reflects incremental growth in income from key customers for services and materials

→ Mix still concentrated on sensing income with modest display sales

Adjusted LBITDA

→ Operating leverage of revenue growth enhanced by further cost savings

→ Annualised property savings delivering £0.7 million net from December 2022

Billings

→ Opening order book for FY23 of £2.1 million, more than double the PY

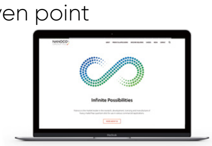
→ Organic cash runway extended to CY25 – excluding any potential litigation receipts

Cash

→ Monthly gross cash burn trending below £0.4 million, before revenue and tax credits

→ Cash runway extends beyond expected breakeven point

For more on Nanoco, visit our new website:
www.nanocotechnologies.com



Contents

Nanoco at a glance

We design, develop, scale up and manufacture novel nanomaterials for use in a wide range of potential applications

Our core competencies

- → We custom design new nanomaterials to exploit emission, absorption and other properties
- → Our materials can be used in a wide variety of commercial applications
- → Continuous expansion of our portfolio of materials
- → Our IP protected processes allow high quality control of manufacturing on a large scale
- → Significant amount of know-how and business secrets

World-class talent

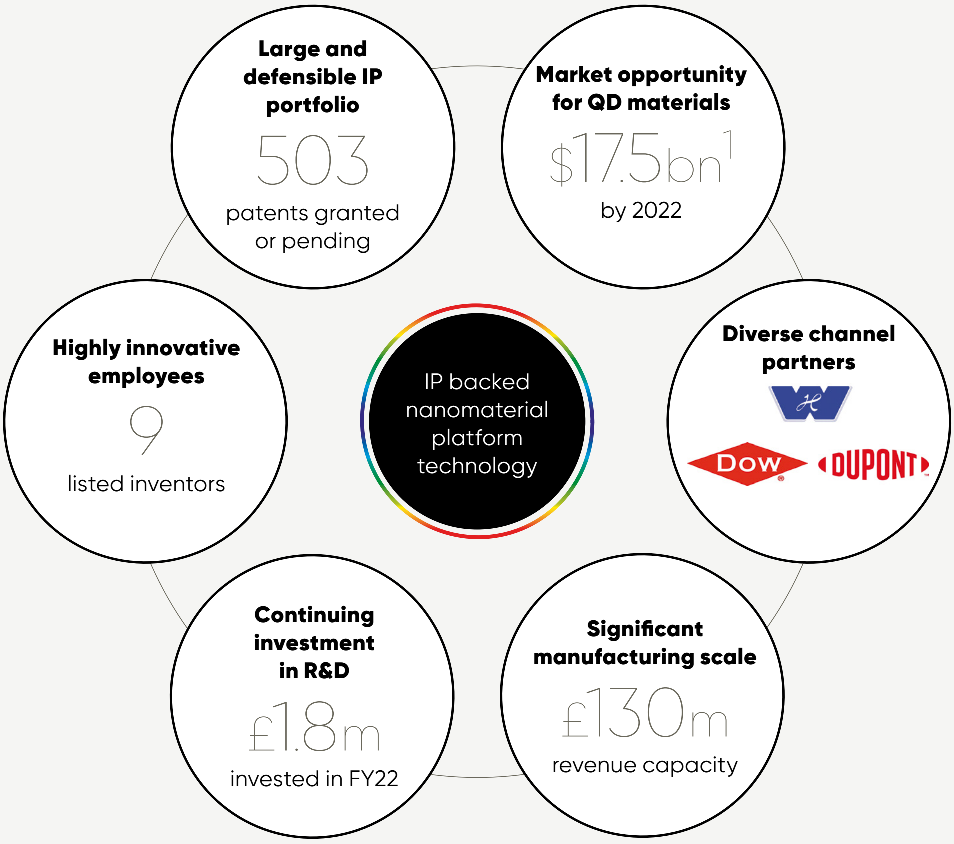
- → At 1 October 2022, 36 employees, of whom 9 are inventors
- → 14 staff with PhDs
- → 7 nationalities of staff: American, British, German, Indian, Italian, Lithuanian and Portuguese

Respected globally

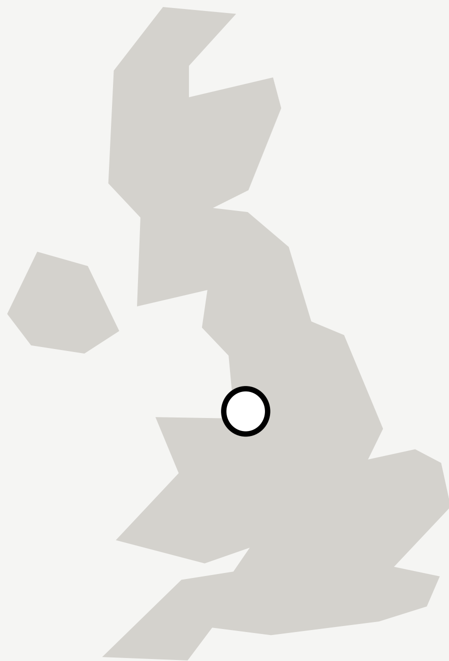
- → International partnerships with global players from US to Europe to Asia
- → Co-located R&D, scale up and twin production facilities in Runcorn, UK
- → Customers operate in $multi-billion markets with wide range of applications

Why invest in Nanoco?

- → Platform technology gives access to a wide range of large and rapidly growing end markets such as consumer electronics, Internet of Things, automotive, multiple display devices, specialist lighting and medical, to name but a few



1 Source – management estimate based on multiple independent market reports.



Dual capabilities at our Runcorn manufacturing facility

→ Based at Runcorn, UK, an area with extensive chemical industry expertise and associated supply chains

→ Production footprint of 22,000ft[2]

→ Facility for CFQD® quantum dots used in display, lighting and life sciences

→ Separate facility for nanomaterials for use in infra-red sensing applications (IRQDs)

→ Revenue capacity in excess of £130 million when fully loaded at current market prices

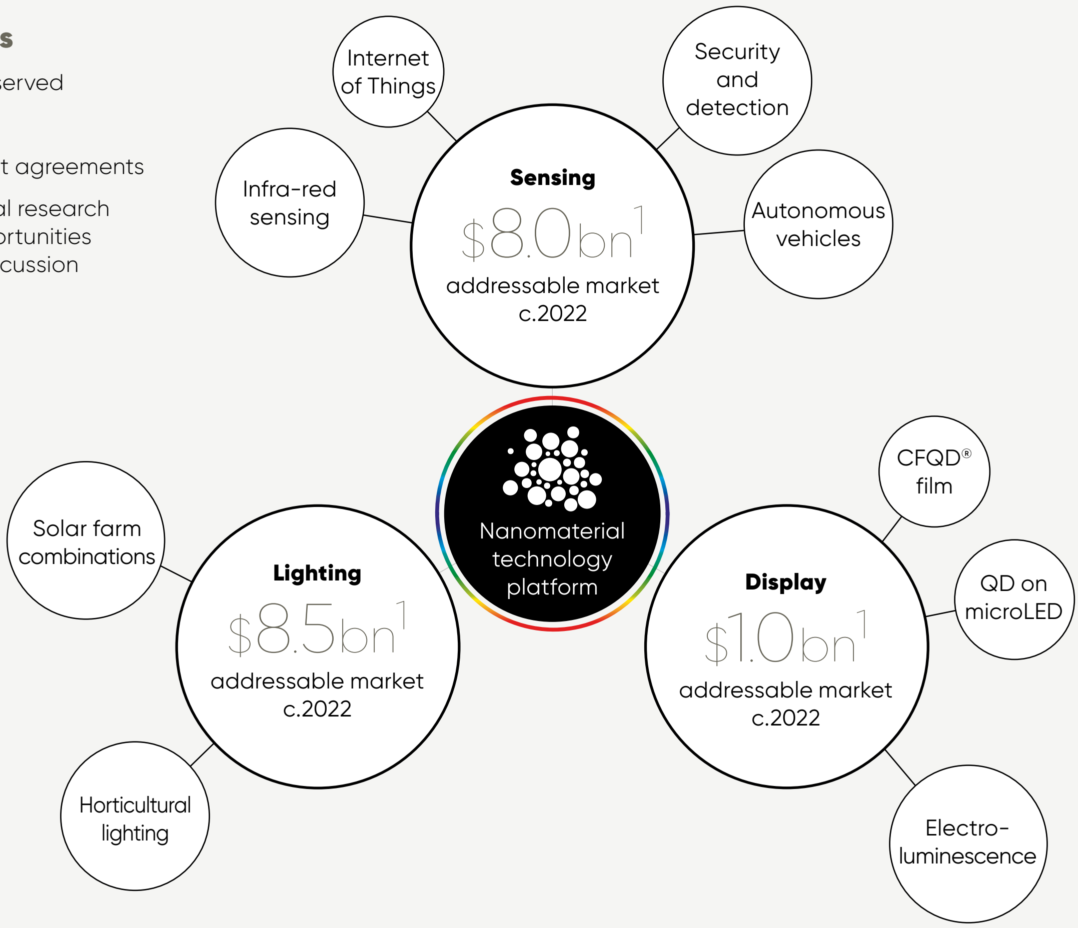
Large and growing addressable markets

→ Three major industries served

→ Two licensees

→ Two major development agreements

→ A number of commercial research and development opportunities in progress or under discussion



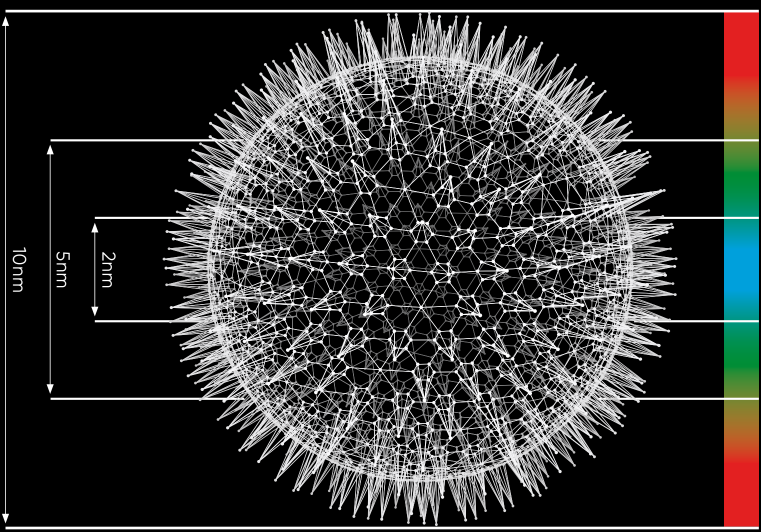
1 Source – management estimate based on multiple independent market reports.

Infinite possibilities

What are nanomaterials and what is a quantum dot?

Nanomaterials are any material that has a dimension or structure measured at the nanoscale, typically 10,000 to 100,000 times narrower than human hair (1–100 nm). Nanomaterials have unique optical, electrical and mechanical properties often not accessible in the bulk material. This can enhance properties such as light absorption, emission, strength, reactivity and conductivity.

Quantum dots are a subclass of nanomaterials whose optical and electronic properties depend on their size, shape and composition.



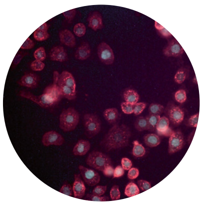
What this all means…

The group's platform technology means that we can design and manufacture a bespoke material for a customer's requirements across a wide range of applications and industry sectors. For example, highly absorptive dots can be used in infra-red sensing or solar energy applications. Efficient emission dots can be used in high end displays to create fantastic colour clarity and a brilliant range of colours.

Nanoco's CFQD® quantum dots are free of cadmium, a highly toxic heavy metal used by many competitors, delivering clear environmental benefits, including improving energy efficiency.

About our nanomaterial platform technology

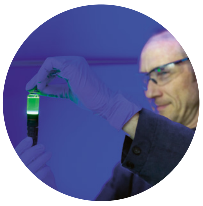
Our technology has a wide range of applications and we have the expertise and knowledge to exploit it



Absorb and emit light in precisely controlled wavelengths

Absorption and emission wavelength of quantum dots can be tuned to nanometre resolution, thereby improving efficiency and effectiveness.

- Narrow focus sensing materials for very specific laser wavelengths
- Increases colour gamut of displays by allowing high specificity of LCD pixel emission
- Enables tuning of lighting fixtures to increase the range of visible colours illuminated underneath
- Enhances plant growth with improved tuning of horticultural lighting to target specific molecules in different plant species



Improved energy efficiency reduces power consumption

Quantum dots' nanometre precision and narrow width of absorption and emission improve efficiency and energy needs.

- Enhanced absorption efficiency allows use of lower power lasers
- Less light lost to subpixel colour filters in high colour gamut displays
- No emission loss to non-visible near infra-red wavelengths in high colour rendering general lighting fixtures
- Lower loss of output gives the ability to reduce energy input

Nanosecond lifetime enables increased modulation

Emission lifetimes 1,000 times faster than conventional phosphors open up applications requiring high light modulation speeds.

- Rapid response times in sensing applications
- Improved screen refresh rates on displays for gaming and virtual reality
- Opportunities to integrate LiFi into conventional light fittings for secure data connections

Reduces production challenges, cost and complexity

Wide excitation absorbance band and flexibility in product form factors allow CFQD® quantum dots to be easily integrated into applications.

- Ink jet and spin coat processing allow for low cost manufacture of next generation sensing and µLED and OLED/QD hybrid devices
- Sheet form factor allows for simple drop-in integration to current electronics, eliminating retooling costs

Chairman's statement

Steady delivery of critical, value enhancing milestones

DR CHRISTOPHER RICHARDS
Chairman

Summary

- Major contract extension agreed with important European customer, underpinning scale-up and final production validation.
- Development agreement progressing with a major Asian chemical company that supplies global electronics markets.
- Continued expansion of our range of different materials, customer engagements, and applications for sensing materials.
- Growing expressions of interest in display materials following validation of Nanoco IP by PTAB and global RoHS developments.
- Confidence in the merits of our case against Samsung for the wilful infringement of the group's IP in the USA further reinforced by PTAB decision to confirm validity of all of our patents; currently awaiting a firm trial date.
- Operations transferred successfully from Manchester to Runcorn delivering net £0.7 million annualised savings from CY23.
- Over-subscribed equity issue of £5.4 million (net) secured cash runway to CY25 – beyond the point when the group expects to be self-financing in its organic operations.

Strategy and business activity

This calendar year was always going to be a critical year for Nanoco. Our challenge was to deliver key value inflection milestones, in both the organic business and in the IP litigation against Samsung. By the end of the financial year we had successfully delivered in both areas.

The significant contract extension with our important European electronics customer underpins final product validation in the sensor market. It also provides new material research service income in advance of potential commercial production orders. We aim to have validated our materials and to have visibility of commercial production from the customer around the end of H1 FY23.

We have continued to build on our success in expanding our range of nanomaterials for use in sensing applications and to grow the number of active engagements with customers. This incremental approach to business development ensures that we balance the Company's financial resources against the need to continue to expand our product and customer reach.

Commercial success with materials in production will be the ultimate test for the success or failure of the business in the medium to long term. In the background, a small subset of the Nanoco team has driven the Samsung litigation forward enabling the commercial team to focus fully on the organic business.

Business performance

The organic business has enjoyed a number of notable successes during the year. A new one-year contract with our important European electronics customer creates a much more stable planning and operating environment for the Nanoco team. We expect to continue the expansion of our portfolio of materials and customers focused around infra-red sensing as we expand our IP in this area. We are also starting to see additional inbound enquiries for our display materials as markets take notice of our IP victories at PTAB.

The operations team completed a number of important change projects during the year, not least of which were the exits from the first and ground floors of our Manchester facility. We expect a number of operational benefits from having the whole team in one location as we look forward to visibility of our first commercial production orders around the end of H1 FY23. The operational benefits will be supplemented by just under £0.7 million of net annualised cash savings once the exits are complete towards the end of CY22.

The successful and significantly over-subscribed fundraise of £5.4 million (net) in June 2022 creates a solid foundation for the business by extending our cash runway out to CY25. This is expected to be beyond the resolution of any PTAB appeals and also potentially beyond the point when we expect the organic business to become self-financing.

No dividend is proposed for the year (2021: none).

Samsung litigation

It was extremely gratifying earlier in the year when the Patent Trial and Appeal Board ("PTAB") emphatically rejected all of Samsung's objections to the 47 claims in the five patents in the case. This is a clear vindication of the quality, strength and value of Nanoco's IP portfolio, which is now attracting new commercial interest from other market participants.

At the time of writing, we are still awaiting a firm date for the Jury trial in Texas. It is important to emphasise that Samsung is likely to appeal any verdict that favours Nanoco in this trial. As a result, we do not expect a conclusion of the US litigation until the appeals process is exhausted, which could take some years. Samsung has already lodged notices that it intends to appeal all of the PTAB findings, a process which is expected to be resolved over the next twelve to eighteen months.

So, even if we are successful at trial there will still be much work to be done before this matter is finally settled. Our resolve remains strong to achieve fair value in this matter for all of our stakeholders, whether through negotiated settlement or final enforced judicial outcome.

We have also recently taken steps to defend our IP in Germany, a major market for Samsung. Other venues for litigation are also being evaluated. The costs of the legal process in Germany are lower than the US, the speed of resolution is faster, and, importantly, injunctions preventing the sale of infringing units are more commonly granted. Our third party funding partner continues to support all aspects of these lawsuits, including the appeals processes.

Finally, the Board continues to review options for litigation against other potentially infringing entities, including third parties who may be purchasing infringing display units from Samsung.

Governance and Board

This has been another busy year for the Board, with active engagement from all members. Close monitoring of the IP litigation, as well the operational aspects of the business, has kept Board members busy. We have also pursued continuous improvement in our governance processes.

Non-Executive Director salary deferrals remained in place throughout the year as the Board continued to show leadership on cash and cost control. Following the improved outlook for the organic business and the successful fundraise in June 2022, it was decided to cease the 35% deferral of NED salaries with effect from 1 July 2022.

During the year, we benefited from the services of Henry Turcan as a Non-Executive Director, representing our largest shareholder, Lombard Odier Asset Management ("LOAM"). His contribution and perspectives on the capital markets in particular were immediately valuable. After the year end, with the business on a much more secure financial and commercial footing, Henry stepped down from the Board and LOAM has chosen not to nominate a replacement NED at this time.

"Extending our cash runway beyond expected key litigation milestones and potential production order visibility in H1 FY23 was an important step. Both the organic business and the litigation create potentially transformative changes in shareholder value in the short to medium term."

Chairman's statement continued

Employees and shareholders

Our staff responded admirably to the welcome challenges of an increasing workload across all aspects of the business. We continue our efforts to provide staff with a supportive working environment and have made special provision during the relocation from Manchester to Runcorn. We are pleased that the vast majority of staff agreed to make the transition from Manchester to Runcorn. We have moved swiftly to ensure that the business is staffed appropriately in the run-up to potential commercial production orders in the near term.

Following a number of challenging years, we are pleased that we have been able to award a Company-wide pay rise for the first time since August 2019, whilst enhancing the overall Nanoco reward package to retain and motivate our high calibre team.

The Board is very grateful for the hard work of our staff, who have brought us to this exciting point in our evolution. Capturing the short-term opportunities we see in front of us will secure not just the Company's future but also the futures of our dedicated Nanoco team, whilst becoming a significant success story for the north west of England.

I would also like to thank our shareholders for their continuing support. The successful fundraise emphasises the strength of backing from existing and new shareholders. We hope to repay that support with significant growth in shareholder value in the short term that then endures for the long term.

I look forward to engaging with as many shareholders as possible at our AGM to be held on 20 December 2022.

Outlook

We continue to develop our product offering and to deliver technical milestones for our significant customers, as we move towards commercial production in the short term. This is a critical milestone in our aim to become a self-financing organic business with a broad range of diversified customers and products.

We expect that our confidence in the merits of our case against Samsung for infringement of our IP will be vindicated when the trial takes place in Texas in the near term. While undoubtedly there will be appeals and further delaying tactics deployed by Samsung, we will be able to manage those with full confidence and from a position of strength without ruling out our willingness to entertain a fair value early settlement proposal from Samsung.

Our focus remains to build a self-sustaining organic business as the best way to deliver enduring shareholder value. We will also work to protect and realise any value that is delivered by a trial verdict, and to ensure that it reflects not just the USA and the past, but the rest of the world and the future lives of our patents. Achieving both goals will deliver the Nanoco for which we have been striving for many years and a significant increase in value for all stakeholders.

Dr Christopher Richards
Chairman
28 October 2022

Strong delivery of commercial, technical, operational and litigation milestones

ABOVE:
Laboratories at Nanoco.

BRIAN TENNER
Chief Executive Officer

This year has been all about delivery. We have delivered or exceeded almost all of the targets we set at the start of the year. We outperformed our revenue target for the year while doubling the size of our opening order book for the coming FY23. We delivered all of the challenging technical milestones set by our customers for our high performing nanomaterials. We have almost completed the consolidation of our Manchester R&D and scale up activities into our Runcorn facility. This was accomplished despite a lower headcount that required us to call up all of our bench strength to ensure customer service was maintained while we made operational changes to the business. These changes will bring long-term operational benefits as well as welcome financial savings of around £0.7 million (net) per annum from January 2023.

Last, but not least, we have moved confidently through the various stages of the litigation against Samsung and cleared each of the hurdles in front of us. The trial in Texas is anticipated soon and we expect to build on all of the successful steps taken so far to deliver a favourable outcome. Our team of witnesses, experts and advisers remain ready for a trial at short notice.

Given Samsung's appeals in the IPRs and the expected appeal of any verdict favourable to Nanoco, the litigation is still very likely to have a long way to go. With a favourable outcome to the trial, we will be able to approach the next steps from a position of strength. We have presented further facts, background information and possible forward timelines on the lawsuit on pages 12 and 13.

The year finished with a significantly over-subscribed equity issue and we took advantage of that appetite for investment by issuing the maximum 5% equity allowed under our AGM resolutions. Net proceeds of £5.4 million, combined with modest revenue growth in FY23 and a low volume use case for commercial production orders in H2 FY23, will fund the group beyond the point at which we expect the organic business to be self-financing.

Business performance

Electronics

We continued our on-time delivery of all development milestones for our major European electronics customer. The new full year contract that runs until the end of April 2023 covers the scale up and final validation of two of our materials and also adds a third novel material set to our R&D efforts. While at a less advanced stage and at a smaller scale, promising progress continues to be made with our major Asian chemical company customer. That relationship has the potential to equal in scale the revenue generation we earn today from the European customer. Both the European and Asian customers participate in very large global markets wherein final customer adoption of QD sensing technology would lead to significant revenue for Nanoco. We also continued to seek out new customer relationships throughout the year with encouraging initial progress.

Success with sensing materials allowed us to turn an opening order book of just under £1.0 million into a full year revenue figure almost two and a half times higher at £2.5 million, alongside delivering a closing order book double the opening position. This larger closing order book gives a robust underpin to revenue expectations for FY23.

As shown in the infographic on page 21, our offering of nanomaterials for use in sensing applications has moved from a single customer/single product in early 2018 to a position today where we are engaged with seven customers and are working with twelve distinct materials/wavelength combinations. The infographic also shows the advancing position of a number of materials as they move through the steps from development towards final validation – the last step before commercial production orders are placed.

The mega-trends seen in electronics, automation, automotive and the Internet of Things more generally continue to be very favourable, supporting our strategy of adding our nanomaterials to silicon-based sensors to significantly enhance their performance and overcome a number of current challenges faced by those devices.

Given the scale of these sectors and the other market participants, we will typically to be part of an extensive supply chain. This does mean that we are subject to events and decisions outside of our control – as happened with the US customer in 2019 – but it also means the potential is very high to deliver significant value if our materials make it into commercial production.

Chief Executive Officer's statement continued

Business performance continued

Electronics continued

As previously announced, already published customer product launch plans suggest we should have good visibility of potential commercial production around the end of calendar year 2022, though, as always, the final decision to adopt the technology lies with the customers of our customer and this cannot be taken for granted. Our task is to ensure that our materials consistently perform as required by our customer so that we are scaled up and ready for those potential production orders.

Our small scale allows us to be much more agile and responsive to our customers' needs than many other players in electronics supply chains. The in-depth nature of our technological insight also means that we do tend to "punch above our weight" in terms of direct engagement even with very large end customers and their technology teams. Conversely, our small scale does present challenges for customers in terms of supply chain risks and we therefore work proactively to agree commercial solutions to the issue of supply chain security.

Display (CFQD® quantum dots)

Display remains an important target market for Nanoco. We have maintained our focus on our "dot only" strategy where we aim to provide the highest performing CFQD® quantum dots.

Activity and inbound enquiries about display materials have begun to grow again during the year. We believe this reflects a combination of our success with our patents at PTAB, the continued reduction in Samsung's market share in QD TV markets and associated entrance of new participants, and the increasing profile of Restriction of Hazardous Substances ("RoHS") and equivalent regulations around the world that limit the use of cadmium thus playing to our cadmium free offering. We have also seen increasing interest in the use of quantum dots in LEDs for both lighting and display applications.

We continue to seek out new relationships and a number of these are moving forward at a small scale, having delivered a number of small material samples were delivered to new customers during the year.

We are still awaiting the EU legislation to implement the final decision to end the RoHS cadmium exemption for film-based displays. This will provide fresh impetus to display panel manufacturers to embrace the benefits of our CFQD® quantum dots. We note that a number of OEMs are investigating environmentally friendly options rather than waiting for the EU legislation. European markets currently have sales of cadmium-based QD televisions and a move to cadmium-free solutions will provide a helpful tailwind.

We retain our core capabilities to deliver display R&D services, scale up and commercial production of material from our Runcorn facility. We are therefore well positioned to take advantage of any broadening in the adoption of non-toxic quantum dots by global display manufacturers when the opportunity arises.

A successful verdict in the litigation with Samsung will also positively affect our ability to derive income from our capabilities in display, whether in production, further robust defence of our existing IP portfolio, or the future licensing of our technology.

We will continue to adopt a dual approach to commercial exploitation of our display materials. We are still ready to license our technology to different channel partners but also retain our own manufacturing capability.

Life Sciences

In November 2020, the Life Sciences team secured a grant from Innovate UK, the UK's innovation agency, for a life sciences project to develop a quantum dot testing kit for the accurate and rapid visual detection of Covid-19. This project builds on Nanoco's existing capabilities in utilising quantum dots conjugated with antibodies as a diagnostic tool in the detection of cancer (VIVODOTS® nanoparticles). The project specifically focuses on antibodies for Covid-19.

However, as is the case with our other materials, our goal is to create a platform technology that is applicable to other pathogens and potential future variants of Covid-19. The project therefore remains relevant despite many other tests now being available on the market for Covid-19.

The project completed successfully and on time in May 2022 with a working prototype. We also had time to assess the test against other pathogens, clearly demonstrating the multiple use cases for our VIVODOTS®. We have now stood the team down following the move to Runcorn and our residual efforts relate to identifying potential exploitation avenues for the technology. Further progress and any value implications are likely to require the engagement of a partner organisation specialising in this field.

Operations

We completed the exit from the first floor of our Manchester facility early in the second half of FY22. We then took the decision to exit the ground floor and co-locate our entire suite of operations into our Runcorn facility. The display facility in Runcorn has been taken out of mothball and now hosts the R&D teams as well as our production capability for CFQD® quantum dots. The co-location will create a number of operational and team benefits while also reducing our annualised installed cost base by around £0.7 million (net) once decommissioning and dilapidations are complete in Manchester towards the end of CY22.

Our resulting team now numbers approximately 36 operational staff. We have delivered a striking reduction in our installed cash cost base from over £12.0 million in FY19 to around £4.0 million for FY23 while retaining our core capabilities. We have achieved this by focusing on our "dot only" strategy that plays to our core quantum dot expertise.

We continue to cross train our flexible production team to be able to operate both facilities to maximise our capability while minimising costs in the short term, allowing us to maintain our significant production revenue-generating capacity. In FY23, following a successful pilot in FY22, we plan on rolling out initial LEAN Six Sigma training ("LEAN") to every single member of staff whether in R&D, scale up or production. The behavioural and analytical benefits of LEAN will be a great boost for team performance.

Responding to Covid-19

We remain vigilant in the aftermath of the Covid-19 pandemic. We continue to emphasise good housekeeping practice such as hand hygiene and self-testing if symptoms occur followed by staying home if a test is positive. Many staff are able to work remotely if required to isolate and a number regular mix working from the labs and home with little impact on activity or effectiveness. We encourage staff to attend the office as much as possible as the working environment and relationships formed there are enhanced by this interaction.

Intellectual property

We continue to proactively manage our IP portfolio to maximise value and protect our core competencies. During the year, we focused the group's IP portfolio on to a core of 503 (2021: 559) patents and patent applications with the most promising commercial potential. This net reduction reflected 24 new applications and 80 that were eliminated in territories or potential applications no longer felt worthwhile.

We continue to preserve trade secrets and have targeted our financial resources on strategic areas such as infra-red sensing where there is a strong overlap with our core IP. These are also areas with clear future commercial opportunities and benefits to be had from holding high quality patents.

Environment/Restriction of Hazardous Substances ("RoHS")

We reported last year that the European Commission ("EC") had received recommendations that:

→ the exemption to allow cadmium (>100ppm) in QD films for display is no longer justified and should be phased out by 31 October 2021; and

→ a new exemption is granted to allow cadmium-based quantum dots applied directly onto LED chips for displays and high CRI lighting for a period of five years.

Progress in implementing legislation to enforce this recommendation has been slow. It therefore seems likely that European consumers will continue to be exposed for some time to the known hazards of cadmium in televisions that exceed the limits shown above. Ahead of nations passing the required legislation, a number of display manufacturers appear to be anticipating the changes and Nanoco has received inbound enquiries in this field.

People

Our employees continue to provide great service to our customers in delivering high quality materials on time and achieving often stretching milestones and deliverables. It is welcome that the vast majority of staff have embraced the move to the Runcorn facility.

Retaining and incentivising our highly skilled team are key to delivering organic value from the business. We were therefore pleased to be able to propose a very reasonable pay award for the coming year. We also undertook a review of comparative salaries against national benchmarks (excluding London). Following that exercise, we were also able to offer structural pay rises for almost a third of our highly skilled workforce to remove everyone from the lower decile of comparator pay. Our goal for staff (excluding Executives) is to be a median payer with upside potential from our annual performance linked bonus scheme and Company-wide participation in the same Long Term Incentive Plan that the Directors enjoy.

Finally, reflecting staff feedback on their preferred benefits in addition to basic salaries, we have now increased the Company pension contributions to our medium-term target of 7.5%, an increase of 1.5%. We will review other benefits options and further potential improvements to pension contributions as our financial situation improves and when the Company becomes self-financing in its organic operations.

Outlook

We have created strong foundations for the group to rebuild our value proposition. We expect visibility of commercial production orders for sensing materials around the end of H1 FY23. We also expect to complete our preparations for production readiness in H1 FY23. In parallel we continue to expand our material offering to other customers and other materials in sensing markets.

We have also seen growing interest in CFQD® quantum dots for use in the display industry and are engaging cautiously with market players other than Samsung which already participate in or are seeking to enter in the QD TV market. This extends to interest in Gen 2 QD displays as well as displays utilising LEDs.

The recent fundraise has allowed us to plan or make a small number of tactical new hires in the business. These new hires range from income-generating customer facing roles, to scale up and production readiness roles, as well as front line and back office support staff. These will allow us to gradually grow our top line revenue and also position us for commercial production orders.

As ever, the main unknown is the actual timing and size of the initial use case for sensing materials. However, the significant investment by our customers in Nanoco materials and their own production and marketing efforts, emphasise that it is more a question of "when" and not "if". In any event, Nanoco has the flexibility, capability and capacity to meet small or large scale production orders in parallel with continued revenue generation from R&D services.

Most of our team is primarily focused on our organic business. However, a small group of staff is also focused on the Samsung litigation and realising value from our IP portfolio. It is likely that it will be some time before the financial benefits of any favourable verdict are enjoyed by Nanoco. However, we will continually seek to apply pressure to Samsung in various forms and jurisdictions with a view to settlement before the final exhaustion of every legal step. Our goal remains to deliver fair value that reflects the global nature and remaining lives of our patents while acknowledging there are risks for Nanoco in the continuing litigation, not least of which is the time value of money.

We continue to adopt a conservative stance with regards to future financial forecasts. We expect to achieve at least 20% revenue growth in FY23 based on a stronger opening order book, an increasing range of R&D services being offered to a broader base of customers, and an assumed low volume use case for commercial production orders commencing in H2 FY23. A larger or earlier use case for sensing materials would clearly improve the outlook. I remain confident that we can deliver value for all of our stakeholders in the short to medium term with the potential for additional transformative value in the Samsung litigation.

Brian Tenner
Chief Executive Officer
28 October 2022

Chief Executive Officer's statement continued

Q&A

Q: What is the thinking behind the reduced emphasis on "cash runways" and "contingency plans"?

Before I joined Nanoco, I shared with one of our current Non-Executive Directors a vision of an Annual Report that was not dominated by extensive narrative disclosures of ever dwindling cash and a visible runway for organic operations that was measured in months, not years. The whole team has been living for a number of years with the threat of downsizing.

This year feels different. Yes, there are still many risks to be eliminated or mitigated. Yes, we need to keep delivering excellent service to our customers. And yes, we are still dependent on customers adopting our technology in end use devices to trigger those long sought-after commercial production orders. But, with a growing pipeline of customer engagements, a much reduced cost base, a relatively healthy cash balance and a strategy focused on our core competency of "dots only", we are now able to plan further ahead than the next twelve months.

Q: What are the next steps on the litigation front?

We are prepared for a long litigation road ahead. We will oppose the appeals which Samsung has already notified the PTAB that it intends to file. We will oppose any expected appeals if and when we achieve a favourable verdict in the trial in Texas. We will also press on with the recently announced litigation in Germany that, ultimately, could lead to an injunction against Samsung selling certain displays in Germany. Si vis pacem, para bellum.

Of course, it remains open to Samsung to take another path. We have made clear that we are prepared to speak to Samsung if they can offer fair value for our investment in creating our IP, for the global nature of that IP, and for the remaining lives of the patents which formed the basis of us instigating the litigation in the first place. This alternative road forward will depend on Samsung's willingness to engage in meaningful dialogue.

An overview of the Samsung litigation

To win an IP lawsuit the plaintiff (Nanoco) must prove the following three things:

- Validity: Nanoco must prove that the patents are valid. Samsung is arguing that the patents are invalid. If the patents are invalid, then the subsequent questions of infringement and damages do not arise.
- Infringement: Nanoco must prove that Samsung is infringing a patent once it is accepted as a valid patent. Samsung must prove that its method of producing cadmium-free quantum dots does not use any of the methods protected by Nanoco's patents.
- Damages: Once a patent has been proven to be valid and that it is being infringed, Nanoco must propose a damages model that reflects the value lost or the benefit gained by Samsung in breaching the patents. Different approaches exist which range from a high value based on the IP in question being an enabling technology that underpins the entire final product, to a lower value which could, for example, be based on the value of each individually separable component.

A separate parallel process is available in the USA for the defendant to request that the Patent Trial and Appeal Board ("PTAB") reviews whether the patents are valid in a process known as an inter partes review ("IPR"). The PTAB initiated a review of all five patents in the case in May 2021. One year later the PTAB confirmed the validity of all 47 claims in the five patents on all grounds raised in the IPRs. A residual, and highly speculative and technical invalidity ground is still open for Samsung to raise at the trial but the material validity risks were all dealt with in the IPRs. It remains to be seen if Samsung will even raise this additional invalidity ground in court.

Success at PTAB will allow Nanoco to focus our efforts at the trial on the questions of infringement and damages. This was extremely helpful given that the trial will have a fixed five-day duration in which both sides have to present their cases, deliver testimony from their expert witnesses, cross examine the other side, and still allow time for the Judge to direct the jury and the jury to consider and reach a verdict.

In its verdict, the jury will decide if infringement has occurred, if it was wilful, award a damages number and state if that damages award is for the past only or if it also includes future sales in the USA.

Following the verdict, the judge is expected to issue his formal report including a decision on any damages multiplier for any finding of wilfulness. If the damages award is for the past only, the judge will also propose a reasonable royalty rate to be applied to future sales of TVs in the USA. There is no fixed time period for when the judge will issue their formal opinion and Samsung can be expected to lodge various appeals once the opinion is published. Samsung has already lodged notice of appeal of the written opinions of the PTAB and the results can be expected twelve to eighteen months after November 2022. Appeals of the court verdict and judge's opinion can be a much longer matter, taking anywhere up to four years or more to resolve if, for example, a re-trial is mandated.

Funding, adviser fees and Nanoco's share of any successful outcome

The funder and Nanoco's advisers will all share in any successful outcome. The funder and our strategic adviser receive no return unless there is a successful outcome. Various legal counsel are working on reduced fee rates (which are being paid by the funder) and will be made whole with a share of upside if the case is successful.

The third party funding does not terminate until there is a final resolution of the litigation. The quantum of committed funding was increased during the year to fund additional litigation activity. The terms of the funding maintain Nanoco control of any decision to settle.

The Board estimates that in all reasonable outcomes, even at what the Board would regard as a modest outcome, the mechanics of the fee arrangements are such that Nanoco will retain the majority of any award. As the size of any final award rises, Nanoco's proportionate and absolute share increases since some of the parties' returns are based on fixed multiples of invested capital.

Any financial result will be taxable at 10% within Nanoco when the cash is received using the UK Patent Box regime. The Company also has accumulated losses which can partly offset any final outcome.

Management comment

Even if we achieve a favourable verdict in the trial, this will not be the end of the process. Further delaying tactics are expected in the form of appeals from Samsung.

Furthermore, the value of any verdict cannot be taken for granted. Any final outcome, potentially negotiated, will leverage the value of any verdict:

Factors potentially reducing the value of the verdict:

- → risk of losing any of the multiple appeals;
- → risk of a re-trial; and
- → time value of money.

Factors potentially increasing the value of the verdict:

- → the finding of wilfulness;
- → future royalties in the USA;
- → sales of other devices besides TVs and monitors; and
- → sales of infringing TVs in other territories around the world which are estimated to be around double those in the USA

We estimate that Nanoco IP coverage outside the US relates to roughly twice the value of the US market itself for sales of Samsung TVs and monitors.

Hence, there remains a significant degree of uncertainty regarding both the probability of a final and successful outcome and the scale of such an outcome. The judge's report is also not due to be published for a number of months after the trial itself, and we expect that Samsung will appeal any verdict in Nanoco's favour.

It should also be noted that almost all countries run independent patent and patent infringement systems. This means that success in one territory does not create any legal basis for confidence of wining in a second territory. Such a success could, however, create commercial confidence of success in a second jurisdiction that might also add pressure in any potential settlement discussions.

While the Board believes firmly that the preponderance of risks are now with Samsung, it is also true that Samsung only needs to win one appeal whereas Nanoco needs to win most if not all of the appeals if we are to prevail. The risks to Nanoco therefore remain substantial.

It would be premature to speculate on any use of funds at this time given the potentially extended time frame before the receipt of any final outcome.

Litigation outside the USA

As announced on 23 August 2022, we have commenced further funded legal action against Samsung in Germany, a large sales territory for Samsung but also one where the legal process is faster and less costly to pursue than in the USA. The standard legal remedy in Germany is injunction and product recall to remove infringing products from sale. The threat of injunction is such that, before it can be enforced, the vast majority of losing defendants will reach a financial settlement with the plaintiffs. If an injunction is to be enforced before the legal process is exhausted, the plaintiff must deposit a bond to cover lost profits of the defendant in the event that the injunction is overturned.

The Board continues to review other jurisdictions to start further litigation and is also reviewing the position of other companies that are suspected of infringing Nanoco IP (potentially including Samsung OEM customers).

Samsung has the opportunity to halt the litigation process at any time by engaging with the Board to agree a fair value settlement for a global perpetual licence.

Timeline for three major threads of the current litigation in the USA and Germany

Patent office process

May 2022	May 2022	~November 2023
PTAB decision on IPRs settles all material validity points	Samsung lodge notice of intent to appeal all IPR decisions – actual appeal expected to be filed November 2022	Final outcome of the IPRs

Texas trial process

~ Q4 CY22	~up to 6 months	~ June 2023	~3-4 years or longer
Jury verdict	Judge issues final written opinion	Samsung appeal based on judge's final opinion	Various appeals to the Federal Circuit, and the Supreme Court, and risk of retrial, etc.

German legal process

August 2022	~ September 2023	~ February 2024	~ September 2024
Initial filing	Preliminary validity finding	Trial of infringement; Decision in March 2024	Trial of validity

Revenue streams

We have significant potential capacity for revenue generation from our multiple revenue streams

Products

Our Runcorn facility has the capacity to make high volumes of CFQD® quantum dots and HEATWAVE™ nanomaterials for IR sensing applications. The revenue generation capacity can be easily scaled by adding additional shifts with the overall potential return on the asset base being attractive, and benefiting strongly from operational leverage if extra shifts and volumes are added. Revenue potential: HIGH.

Services

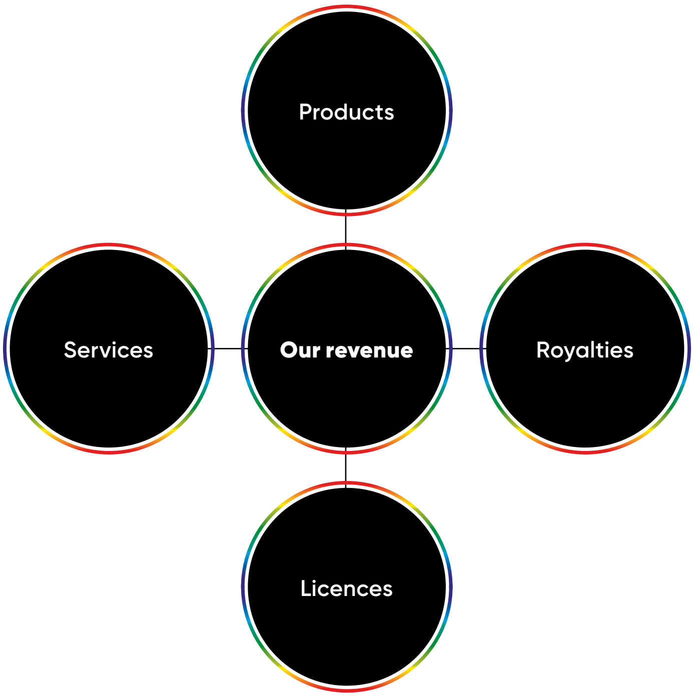
Our highly skilled R&D and Scale Up teams are able to design, develop and scale new materials for customer-specific applications. We are able to charge customers for professional services when we carry out these sorts of development activities for them with rewards often linked to achieving technical milestones or outcomes. The last two financial years have seen significant revenue generated in this area. Revenue potential: LOW.

Licences

When a channel partner initially acquires a right of access to or use of Nanoco technology and IP, they typically pay a one-off licence fee. These fees reflect the costs already previously incurred by Nanoco in developing our technology and IP and hence represent a return on those historical investments. Success in the Samsung litigation would increase the potential of this income stream. Revenue potential: LOW–MEDIUM.

Royalties

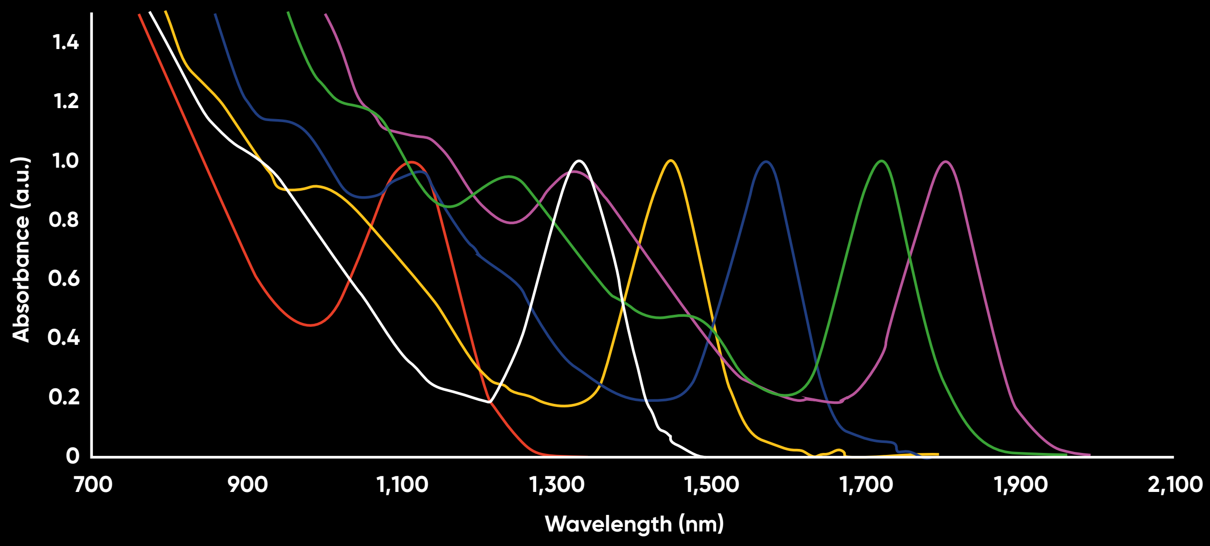
As well as the ability to make and sell materials directly to our customers, the agreements with our channel partners (Dow and Wah Hong) allow them to manufacture or distribute our materials themselves and then pay a royalty on the value of their sales to their customers. This revenue stream has the potential for high leverage since it is not constrained by manufacturing scale and also has minimal costs associated with incremental sales via this channel. Success in the Samsung litigation would increase the potential of this income stream. Revenue potential: HIGH.



Infinite possibilities

Tuning near-infra-red absorption with HEATWAVE™ quantum dot technology

Progress has been made in expanding the absorption range, processability and performance metrics of our HEATWAVE™ nanoparticles for infra-red silicon sensing applications. For our customers, this has increased the potential range of products for which our materials can be used. We are continuing to extend our portfolio of infra-red-absorbing materials available to customers, to target novel applications, from consumer electronics to machine vision and medical imaging.



What this all means...

Ultimately, QD-based silicon sensors offer the potential to lead to more sensitive, thinner, lower power sensors than silicon devices over a wider spectral range, providing an inexpensive alternative to InGaAs technology.

Section 172(1) statement

Section 172(1) report

In line with section 172(1) of the Companies Act 2006, the Directors of the Company must act in a way which they consider, in good faith, would most likely promote the success of the Company for the benefit of its members as a whole, and in doing so must have regard to a number of other key matters.

Likely long-term consequences of decisions (s.172(1)(a))

Given the nature of the business, the Board takes a medium-term approach to its decision making to ensure that the Company is able to deliver its strategy of creating value for all of our stakeholders. Risk management is also key to understanding the likely consequences of actions.

The Board plays a key role in reviewing the Company's approach to risk, including an assessment of its emerging and principal risks. See pages 27 to 29 of the Strategic report for a description of the identified risks and how these are being controlled or mitigated.

Given the group's finances, the Board has been continually reviewing the Company's current and forecast financial position. This year the Directors selected a two-year timeframe over which to assess the viability of the Company. The Viability statement can be found on pages 30 and 31 of the Strategic report.

Maintaining a reputation for high standards of business conduct (s.172(1)(e))

The Company has in place a Code of Conduct which acts as a guide for employees to do the right thing. The Company also has well-embedded policies in place which assist with ensuring high

	Why we engage	How we engage and respond
Employees	→ To ensure employees feel valued for their contribution → To empower our employees → To enhance our employees through training and progression	→ We communicate key decisions and collaborate through our Employee Voice Committee, which includes Directors → We give them the tools to work effectively → We encourage our employees to provide solutions to problems
Customers	→ To ensure we can provide the best service and products possible, to meet the customers' needs → To protect our customers' technology → To ensure we are complying with regulatory requirements	→ We ensure open and constant communication with customers, to ensure our products and services are world leading → We welcome feedback from customers, and work collaboratively to achieve our customers' goals
Suppliers	→ To develop long-term, collaborative partnerships for key, difficult to source R&D components → To mitigate the risk of not being able to succeed commercially → To comply with regulatory requirements	→ We create close collaborative working relationships with key suppliers, to ensure clear communication, active issue resolution and effective qualification of products → We encourage open engagement, to ensure compliance with the relevant regulatory requirements
Regulators	→ To ensure compliance with regulatory requirements → To protect our staff and communities → To ensure best practice	→ We review our operations periodically to ensure compliance with regulations → We actively maintain standards through external reviews (e.g. ISO 9001 accreditation)
Shareholders	→ To enable shareholders to understand Nanoco's strategic aims and results → To help understand management's aim, responsibilities and incentive structures → To understand our commitment to our staff, communities and the wider environment	→ We build relationships with our investors through our investor relations activities → In our Annual Reports, we update all stakeholders on our strategic progress, and explain any financial implications → We consider investor feedback, and what impact this may have on the business

standards of conduct, including in respect of the following key areas: health, safety and environment; whistleblowing; anti-bribery and corruption; human rights; and modern slavery. The Environmental, social and governance disclosures section of the Directors' report, from pages 32 to 37, provides further insight into measures put in place by the Board to assist with maintaining a reputation for high business conduct standards.

Acting fairly between members of the Company (s.172(1)(f))

The Directors also have regard to the need to act fairly between members of the Company, aiming to understand their views and act in their best interests. The ownership of the Company follows a "one share, one vote" structure, which assists with promoting parity in shareholder rights. The Board ensures that there is fair and equal dissemination of information to all shareholders and has a dedicated Investors section on the Company's website which is available to all shareholders. This provides easy access to RNS announcements and reports and publications. All members are invited to attend the Annual General Meetings of the Company, offering an opportunity for members of any size shareholding to have a conversation with, and ask questions to, each of the Directors. For any Annual General Meetings where in-person attendance is prohibited due to the Government's regulations, all shareholders will be offered the opportunity to submit questions to the Board ahead of the meeting with answers being made available to them.

Having regard to specific stakeholder groups (s.172(1)(b) to s.172(1)(d))

The table which follows seeks to provide insight into how the Board carries out its duty under this section.

Impact of engagement	Engagement during the year
→ Our employees feel empowered to achieve solutions to problems → Our employees feel more valued and aligned to the business → We improve as our employees improve	→ We ran our second engagement survey to solicit employee feedback. This gave useful pointers as we continue to build on FY22 initiatives → We held a number of all-Company days to build team morale → We consulted on the impact of relocating to Runcorn and devised mitigating benefits packages, although some employees still left the business as a result of the relocation
→ We build strong relationships with customers, who believe in the capabilities of our platform technology and our employee expertise → Our customers trust us to be able to meet their requirements to create world-leading products	→ Through the year, we actively engaged in weekly technical updates to aid development and collaboration → We discussed openly any logistical challenges due to import/export regulations, helping customers with their own compliance goals
→ This helps us to attain best value from our supply chain, and mitigates the risk of a breakdown in process negatively impacting the business → Through regulatory checks, we ensure our suppliers are complying with regulatory requirements, e.g. payment of minimum wage	→ We performed audits on suppliers to ensure their compliance with legislation → We engaged with a number of suppliers on the qualities of our raw materials, and considered their impact on our products for our customers → We maintained dialogue on availability of raw materials, and took action when there was a risk this could be compromised → Some supply chain issues have been experienced, but the impact of these has been mitigated through close collaboration with suppliers
→ Compliance with regulatory requirements enables the business to operate in a safe manner, protecting our employees and the wider communities	→ Post year end, we completed our ISO recertification → We constantly reviewed operating procedures to ensure best practice → Continued engagement with European RoHS regulators to remove exposure to toxic cadmium from EU customers
→ We aim to create long-term investor value, through growing from an R&D services business to a commercially viable niche production company	→ We engaged openly with shareholders through analyst briefings and subsequent Q&A sessions → We expanded engagement in Investor Meet Company presentations → We engaged with many existing and new shareholders leading to the successful equity issue and fundraise in June 2022

Our business model

We are focused on bringing our platform technology to market for our partners and customers through innovation and research

Intellectual property

Deep IP portfolio, a key investment proposition

Platform technology

High performing nanomaterials

Expertise

Our platform and people deliver novel solutions to new application challenges

Agility

Broad skill set and agile team structures enable rapid resource pivot to alternative commercial opportunities

Licence partners

Major channel partners with global reach to multiple markets and applications

Employees

Highly skilled staff with extensive technical knowledge and flexible skill set

Operations

Installed asset base capable of generating significant revenue in multiple markets

About our business model

Our business model has a number of key strengths. It also enjoys a diverse range of potential income streams. This was amply demonstrated over the last two years where services income featured strongly compared to previous years. Our medium-term goal is to maximise our revenue from direct product sales by Nanoco and also through royalty income on sales by our channel partners.

Intellectual property ("IP")

IP and process technology know-how are foundational assets for the group and a key strength. Our technology is heavily patented to secure its use for the group. New IP is continually generated through our R&D activities and all potential patents are reviewed by our internal Patent Review Board for commercial value before being filed. We continue to strengthen our IP position by patenting technology we believe will have real commercial value in the future.

It is worth noting that on top of our formal IP portfolio, we also have significant know-how around our methods and processes. We tend to hold this information as commercial secrets rather than as formally registered IP.

Platform technology

Our nanomaterials have a wide range of electronic properties, usually opto-electrical in nature. These include absorption of different forms of energy and its emission and potentially its conversion to a different form of energy (electricity to light, for example) or a different variety of the same energy (blue light to green light, for example).

One specific class of our materials is our CFQD® quantum dots that avoid the use of toxic cadmium in display applications. The same absence of toxic chemicals means we can also develop dots that can be applied in life sciences applications for use in the human body.

Expertise and agility

We take advantage of our extensive technical expertise and agile workforce to be able to respond to complex and challenging customer requirements. We can also do this much faster than many of our competitors. The example of the US customer is a case in point: within eleven months of starting work, we solved a number of technical challenges to develop and scale up a novel nanomaterial and then built a new production facility capable of manufacturing that new nanomaterial (once the facility is commissioned and validated).

Operator assessing the performance of test devices manufactured with Nanoco Heatwave™ material designed for use in infra-red sensors.

Licence partners

Licence partners can create an opportunity for the group to access very larger global markets that our own scale might make difficult. Our partners have scale and reach beyond our own and in a number of cases are closer to potential end market uses that might go unnoticed by the group.

Our licence partners also bring skill sets in the respective supply chains that would be too difficult or too costly for the group to develop internally. This partner reach has allowed the group to move to the "dot only" strategy where we focus our expertise and resources on our core capabilities and allow the licence partners to exploit their core strengths in collaboration with Nanoco.

Employees

Our staff are highly skilled in a number of specialist areas. There are 14 employees with PhDs and other postgraduate qualifications. In R&D our expertise ranges from chemistry to physics, and from biology to pharmacology. Staff are also adept at taking lab scale processes and scaling them up to industrial production scale. We also have strong process improvement and yield optimisation skills that improve both production volumes and our input costs. We further invest in our employees through funding training to ensure they are developing their capabilities further.

Production capacity

Our Runcorn production facility has two distinct production labs. One is focused on CFQD® quantum dots for use in display, lighting and life sciences. The other, new and recently completed, facility is focused on nanomaterials for use in infra-red sensing applications. In combination they create an extensive revenue-generating capacity for the group through direct product sales to our customers. The nature of the facilities means they also deliver strong operational leverage if additional volumes are added with additional shifts, and we continue to identify ways to improve our efficiencies.

Our strategy

Our “dot only” strategy is to focus on producing the highest quality dots and meeting the needs of our customers through the application of innovative nanomaterials technology

Strategic objectives

1 Growth

Objective

- To become self-sustaining financially
- To continue to invest in R&D for future products

How

- Own manufacture and direct supply to customers
- Non-exclusive technology licensing
- Professional services
- Royalty income

Future focus

- Converting current opportunities into revenues with a strong emphasis on nanomaterials
- Exploring opportunities with a number of potential customers

KPIs

- Revenue
- LBITDA
- Total billings

Risks

- Strategic
- Operational
- Financial

2 Investment

Objective

- To maintain our competitive advantage

How

- Continue to create and patent new IP
- Continue to develop in-house manufacturing capabilities

Future focus

- Continuing to invest in R&D in order to remain at the forefront of this technology
- Exploring ways to open up new market opportunities

KPIs

- Year-end cash and cash burn rate
- Investment in R&D
- Portfolio of patents and patents pending

Risks

- Strategic
- Compliance

3 Licensing

Objective

- To bring significant extra capacity and resources to address expected market growth

How

- Assisting licensees in maximising their opportunities in manufacturing
- Working with licensees to create routes to market for our products

Future focus

- Continuing to support our licensing partners to maximise the benefit to all parties
- Giving partners the best performing dots

KPIs

- Investment in R&D
- Portfolio of patents and patents pending

Risks

- Strategic

Infinite possibilities

Strategy in action

Investment in new material sets this year has increased our customer reach for new applications leading to new R&D service income

Early 2018	NIR			SWIR								
Wavelength	(<1.0 µm)			(1.0–1.3 µm)			(1.3–1.5 µm)			(>1.5 µm)		
Material	A	B	C	A	B	C	A	B	C	A	B	C
Development	1											

Strong progress expanding wavelengths and base materials

- Development – material at R&D scale
- Optimisation – application optimisation
- Scale up – scaling up at Runcorn
- Validation – material ready for validation
- Production – ready for production: goal
- Change/progress in Period

June 2022	NIR			SWIR								
Wavelength	(<1.0 µm)			(1.0–1.3 µm)			(1.3–1.5 µm)			(>1.5 µm)		
Material	A	B	C	A	B	C	A	B	C	A	B	C
Development	1	2			2		2	5	1	2		1
Optimisation												
Scale up							1					
Validation	1											
Production												

Sensing goals: one material in production 2023, a second validated

Our key performance indicators

We have continued our drive to make sure all employees are aware of, and focused on, our key performance metrics, making our performance a true team effort

Revenue
£ million

£2.5m
+18%

2022	2.5
2021	2.1
2020	3.9
2019	7.1
2018	3.3

Measurement

The value of goods and services recognised as income in accordance with IFRS 15 Revenue Recognition. Grant income is also important and included under Other Operating Income.

Why it is important

Revenue (and its change year on year) shows the speed with which the business is growing or contracting.

What it means

In combination with gross margins and overheads it shows whether the group is getting closer to a breakeven position.

Strategy link 1

Adjusted LBITDA
£ million

(£2.1m)[1]
+26%

2022	(2.1)
2021	(2.8)
2020	(2.9)
2019	(3.8)
2018	(6.2)

Measurement

The statutory result after deducting exceptional items, share-based payment charges, depreciation, amortisation, interest and tax from our revenue.

Why it is important

Reducing LBITDA is a critical medium-term goal as it would significantly reduce the key risk of running out of cash before realising the group's full potential.

What it means

The group's LBITDA is a very good proxy for its organic cash flows and shows how close the group is to being self-financing.

1 Calculation provided on page 25.

Strategy link 1

Year-end cash
£ million

£6.8m
+77%

2022	6.8
2021	3.8
2020	5.2
2019	7.0
2018	10.7

Measurement

Reconciled bank balances including committed but not yet cleared receipts and payments.

Current monthly gross cash consumption before revenues and other receipts.

Why it is important

The business operates on a cash consuming basis and this blended KPI indicates the duration of funding visibility.

What it means

In combination with the group's operating plans and budgets, the current balance underpins the Directors' going concern and viability statements.

Strategy link 1 2

Key

Strategy link

1 Growth

2 Investment

3 Licensing

Billings
£ million

£2.7m

+55%

2022	2.7
2021	1.7
2020	2.5
2019	9.6
2018	6.5

Measurement

The value of invoices raised during the year for goods and services delivered or to be delivered to customers (excluding VAT).

Why it is important

Billings are a better indicator of cash flow than revenue, as revenue can be influenced by non-cash accounting estimates and judgements.

What it means

Billings increased year on year reflecting the growth in revenue and management efforts to improve the match in working capital cycles.

Strategy link 1

Investment in R&D
£ million

£1.8m

(18%)

2022	1.8
2021	2.2
2020	3.1
2019	4.4
2018	4.0

Measurement

The sum of all costs incurred in research and development activities. This includes salary costs and other direct R&D costs.

Why it is important

Nanoco prides itself on the scale and quality of our R&D efforts – which feed our IP portfolio and also commercial opportunity pipeline as we develop new materials for potential new markets and applications.

What it means

We aim to continue investment in our core R&D activities despite restructuring the business during the year. In this way we will further enhance the quality of our materials.

Strategy link 2 3

Portfolio of patents and patents pending
Number of patents

503

(10%)

2022	503
2021	559
2020	731
2019	745
2018	654

Measurement

The group's IP lawyers report monthly on patents granted or filed in the respective patent offices in various countries.

Why it is important

Our IP portfolio is a key strength of Nanoco and a strong reason to invest. It supports our efforts to monetise our investments in R&D and also underpins the major litigation against Samsung.

What it means

The overall quality of our IP portfolio continues to improve. We continue to proactively review the portfolio for relevance and value. As our business focus changes this can lead to a decision to allow no longer relevant IP to lapse.

Strategy link 2 3

Financial review

Creating a stable cost base from which to grow organically

LIAM GRAY
Chief Financial Officer

Summary

- → Revenue and other operating income increased by 24% to £2.8 million (2021: £2.3 million).
- → Adjusted LBITDA has reduced to £2.1 million (2021: £2.8 million), reflecting the increase in revenue and operating income, and the continued focus on reducing the cost base.
- → The consolidation of operations in Runcorn, and subsequent closure of the Manchester site, has further reduced our cash cost base.
- → Cash remains a key focus – the fundraising completed in the year takes the cash runway out to CY25.

Revenue and other operating income increased by £0.5 million to £2.8 million (2021: £2.3 million). The increase is due to the ongoing contract with the European electronics customer and the grant for the development of a Covid-19 diagnostic testing kit, which was completed during the year.

Revenue from the sale of products and services rendered accounted for 96% (2021: 95%) of revenues with the balance being royalty and licence income. Revenue from services has increased from £1.3 million to £1.5 million due to the continued work with the European electronics customer. Revenue from the sale of development products was £0.8 million (2021: £0.7 million).

Billings have increased by £1.0 million to £2.7 million (2021: £1.7 million), which is in line with revenue.

Total operating expenses, excluding Share Based Payments ("SBP") and associated costs, depreciation, amortisation and exceptional items, reduced in the year by £0.9 million to a total of £4.5 million (2021: £5.4 million). This reduction was primarily due to the fall in payroll costs to £2.6 million (2021: £3.3 million) and other cost savings identified.

During the prior year, our headcount was decreased from c.46 full time employees to c.39 employees. In the current year, this has fallen further to 36 employees. We have made these changes whilst retaining full operational and commercial viability.

In March 2022, we exited the first floor of our Manchester premises, and at year end, we were in the process of vacating the ground floor, with the lease set to expire in November 2022. The closure of the Manchester site, and consolidation into Runcorn, will save c. £0.7 million (net) per year.

During the year, we completed an over-subscribed fundraise, resulting in net proceeds of c.£5.4 million. This extended the group's cash runway to calendar year 2025, beyond the point when we expect the group's organic operations to be self-financing.

Highlights	**2022 £ million**	2021 £ million	% change
Revenue	**2.5**	2.1	18%
Other operating income	**0.4**	0.2	97%
Adjusted operating loss	**(4.2)**	(4.6)	(10%)
Adjusted LBITDA	**(2.1)**	(2.8)	(26%)
Net loss	**(4.7)**	(4.4)	(7%)
Loss per share (p)	**1.52**	(1.44)	6%
Billings	**2.7**	1.7	55%
Cash and cash equivalents	**6.8**	3.8	77%

Non-GAAP measures

The non-GAAP measures of adjusted operating loss and adjusted loss before interest, tax, amortisation and share-based payment charges ("LBITDA") are provided in order to give a clearer understanding of the underlying loss for the year that reflects cash outflow from the business. The calculation of both non-GAAP measures is shown in the table below:

	2022 £ million	2021 £ million
Operating loss	**(4.8)**	(5.0)
Share Based Payments	**0.6**	0.4
Employers NI on SBP	**0.3**	0.1
Depreciation	**0.5**	0.5
Amortisation[1]	**1.3**	1.2
Adjusted LBITDA	**(2.1)**	(2.8)

1 Includes impairment of intangible assets.

The loss before tax was £5.2 million (2021: £5.1 million), with the increase driven by non-cash SBP charges arising from the growth in the share price and a first full year of accrued interest on the loan notes issued in June 2021, offset by cost savings during the year.

Taxation

The tax credit for the year was £0.5 million (2021: £0.7 million). The tax credit to be claimed, in respect of R&D spend, is £0.5 million (2021: £0.7 million). Overseas corporation tax was £nil during the year (2021: £nil). There was no deferred tax credit or charge (2021: £nil).

In the financial year, the Company entered the patent box regime retrospectively, which should provide an advantageous tax rate of 10% on revenues or litigation proceeds arising from the group's IP portfolio. At the year end, the Company had £40.5 million of accumulated losses to offset against any potential future profits.

Cash flow and balance sheet

During the year cash, cash equivalents, deposits and short-term investments increased to £6.8 million (2021: £3.8 million). The net cash outflow, excluding the benefits of the equity fundraise of £5.4 million in June 2022 (net of costs), was £2.4 million (2021: £4.4 million outflow). The decrease in cash outflows reflects increased revenue, a reduction in the cost base and some favourable movements in working capital compared to FY21, with a reduction in deferred revenue year on year. Tax credits of £0.7 million (2021: £0.9 million) were received during the year.

Expenditure incurred in registering patents totalled £0.1 million (2021: £0.4 million), reflecting the group's continued focus on developing and registering intellectual property. Capitalised patent spend is amortised over ten years in line with the established group accounting policy.

During the year, an impairment charge of £0.9m was posted against the net book value of the group's IP. This reflects the continued rationalisation of the patent portfolio to ensure the remaining patents are commercially viable in the short to medium term.

Treasury activities and policies

The group manages its cash deposits prudently. Cash deposits are regularly reviewed by the Board and cash forecasts are updated monthly to ensure that there is sufficient cash available for foreseeable requirements.

More details on the group's treasury policies are provided in note 27 to the financial statements.

Financial review continued

Credit risk

The group only trades with recognised, creditworthy third parties. Receivable balances are monitored on an ongoing basis and any late payments are promptly investigated to ensure that the group's exposure to bad debts is not significant.

Foreign exchange management

The group invoices most of its revenues in US Dollars. The group is therefore exposed to movements relative to Sterling. The group will use forward currency contracts to fix the exchange rate on invoiced or confirmed foreign currency receipts should the amount become significant and more predictable.

There were no open forward contracts as at 31 July 2022 (2021: none). The group's net profit and equity are exposed to movements in the value of Sterling relative to the US Dollar. The indicative impact of movements in the Sterling exchange rate on profits and equity based on the retranslation of the closing balance sheet is summarised in note 27 to the financial statements and was based on the year-end position.

Brexit

The Board continues to monitor the ongoing developments. Currently, the majority of the group's revenues are for services delivered in the UK with minimal Brexit impact. Going forward, the group expects a significant portion of its revenues from material sales to be from non-UK countries where the Government either already has or hopes to have in place equivalent trading arrangements as existed prior to Brexit.

Although there were some logistical challenges on trade with EU countries, this has largely been mitigated with little to no ongoing disruption.

"The group continues to monitor cash carefully, with targeted investments to support strategic goals."

Going concern

The equity fundraising in June 2022 raised £5.4 million net of costs. This extended the group's cash runway to 2025. The Directors have a reasonable expectation that the group has access to adequate resources to continue in operational existence for the foreseeable future.

Accordingly, they continue to adopt the going concern basis in preparing the consolidated financial statements and the Board concluded that it is appropriate to utilise the going concern assumption.

Covid-19 pandemic

The group has completed detailed risk assessments and implemented the resulting action plans and Government guidance to create Covid-19 secure workplaces. We are able to meet customer needs while working in a safe fashion. We do not currently expect significant financial downsides though this is clearly dependent on changes in regulations and the scale of any further lockdowns, both in the UK and the wider world.

Macroeconomic factors

We continue to see inflationary pressures on raw materials. We attempt to mitigate these by reviewing suppliers and achieving volume breaks. In addition, with the ongoing cost of living crisis, we are cognisant of the impact on our staff, and have implemented a company-wide 6% inflationary wage increase from August 2022. We will continue to review market conditions and assess the impact on all stakeholders.

Summary

This year has been one of steady operational delivery and consolidation of our cost base. The closure of the Manchester site and relocation of operations to Runcorn, although producing some challenges, provides the group with a central base from which to grow – one where R&D and production can operate in close proximity and improved collaboration.

Work has progressed very well with our customers, and we anticipate having visibility of commercial orders by the end of H1 FY23.

We are confident that the group has a solid foundation from which to grow, to provide value to shareholders in the medium term.

Liam Gray
Chief Financial Officer
28 October 2022

Cash and cash equivalents
£ million

2022	6.8
2021	3.8

Net decrease in cash explained by:

Investment in intellectual property
£ million

2022	0.1
2021	0.4

Managed rationalisation of the patents has resulted in a decrease in patents granted and patents pending from 559 to 503.

R&D tax credit received
£ million

2022	0.7
2021	0.9

Our continued emphasis on R&D has resulted in a tax claim of £0.7 million (2021: £0.9 million) being repaid in the year.

Cash outflow from operating activities
£ million

2022	2.5
2021	4.2

Cash outflow from operating activities has decreased due to the reduction in adjusted EBITDA and favourable working capital.

Results of equity issue (net)
£ million

2022	5.4

Gross fundraise of £5.7 million offset by £0.3 million of costs.

Managing risk in a dynamic business environment

In common with all businesses at Nanoco's stage of development, the group is exposed to a range of risks, some of which are not wholly within our control or capable of complete mitigation or protection through insurance.

Specifically, a number of the group's products and potential applications are at a research or development stage and hence it is not possible to be certain that a particular project or product will lead to a commercial application. Other products require further development work to confirm a commercially viable application.

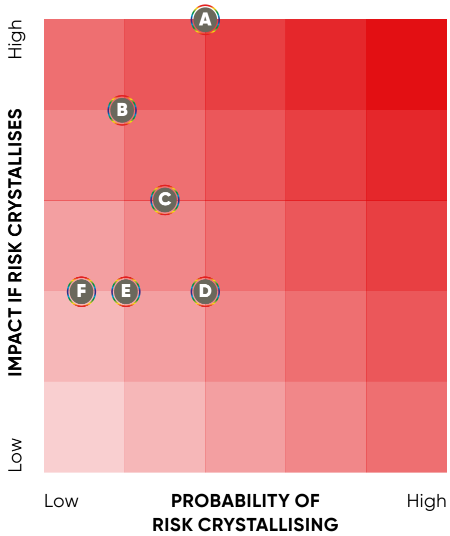
Equally, a number of products are considered commercially viable but have yet to see demand for full scale production. It is also the case that the group is often only one part of a long and complex supply chain for new product applications. The group therefore has little visibility of demand other than from contracts already in place. There are therefore a range of risks that are associated with the different stages of product development as well as for the group as a whole.

Risk management process

The Board has established a process for carrying out a robust risk assessment that evaluates and manages the principal risks faced by the group. The Board reviews the process. A detailed review of individual risks was undertaken initially by the leadership team, and then reviewed by the Board during the financial year ended 31 July 2022. The Board has also established an acceptable level of risk (risk appetite) that informs the scale and urgency of actions required. Where risks are deemed to be outside management control, efforts are focused on mitigating any potential impact. Where all practical measures to prevent or mitigate risks have been taken and a residual element of risk still remains, these risks are accepted by the group.

Risks are evaluated with respect to the probability of occurrence and the potential impact if a risk crystallised. Where the group has identified risks, these are monitored with controls and action plans to reduce the probability of a risk crystallising and the impact of each potential event if it did occur. The residual risk score, after mitigating controls, is then plotted on a "risk heat map". The group's principal risks are shown on the heat map below and are discussed in further detail in the pages following.

Likelihood and impact of principal risks



Principal overarching risk

The principal overarching strategic risk faced by the business is that the group exhausts its available funding before achieving adequate levels of commercial revenues and cash flows to be self-funding.

This risk has been very significantly mitigated in the short term by the recent equity fundraise which has extended the group's organic cash runway to CY25. This date is beyond a number of key litigation milestones which could trigger a significant inflow of funds to the group.

More importantly, it is also beyond the point when the group aims to be self-funding in its organic business activities, subject to final adoption of the technology by our customers and their end customers. The Board now considers that a plausible downside scenario no longer includes the risk or need for a major restructuring in the short term. Instead, the plausible downside scenario is based on delays in customer orders and a slower ramp-up in demand once those orders begin.

Other principal risks

Risks are broadly categorised as strategic, operational, financial or compliance. The table overleaf focuses on those risks that the Directors believe are the most important currently faced by the business. Other risks may be unknown at present and some that are currently rated as low risk could become more material risks in the future. The group's risk management process tracks risks as they evolve and change.

Additional continuing principal risk identified in FY20 (A)

In February 2020, the group initiated litigation against Samsung for wilful infringement of its IP. In May 2022 the Patent Trial and Appeal Board ("PTAB") confirmed the validity of all 47 of Nanoco's claims in the five patents relevant to the lawsuit. The Company expects a jury trial in Texas to be held in Q4 CY22 or shortly after.

Samsung has lodged a number of appeals against the decision of the PTAB and is likely to appeal against any trial verdict that favours Nanoco. It is likely that it will also appeal the judge's final written decision when it is published. The group therefore remains exposed to both positive and negative aspects of the litigation.

Successfully overcoming the appeals by Samsung will crystallise any contingent asset inherent in a favourable verdict, though the value of that contingent asset may change. Conversely, if Samsung is successful in its appeals, any contingent asset could become worthless.

Both outcomes will have significant implications for the value of the group's IP portfolio, for potential licensing or royalty income, and for the prospects regarding the sale of CFQD® quantum dots.

The balance of risk and reward has undoubtedly swung in Nanoco's favour but given the appeals processes it is, as yet, by no means certain that Nanoco will benefit from any contingent asset that arises from a potential favourable verdict and damages award.

Principal risks and uncertainties continued

Risk description	Potential causes and impact	Mitigation	Change	Link to strategy
Strategic				
A **Outcome of Samsung Litigation** **Responsibility:** CEO	The final resolution of the Samsung litigation will have a significant impact on the group. If successful, there is likely to be a significant financial return to Nanoco. Conversely, if the outcome is negative, this could undermine the value of Nanoco's IP.	Nanoco's legal team and strategic adviser have significant experience in technology IP litigation. Our advisers and funder performed extensive due diligence on the strength of our case before they agreed to act for Nanoco. Nanoco has signed a litigation funding agreement with a very large US litigation finance specialist. This reduces the cash flow risk of the litigation to Nanoco. It also reduces the risk that delays to the conclusion of the litigation could occur. The Board is included in ongoing discussions with our lawyers to ensure Nanoco is up to date with proceedings.	Down Winning all 47 claims in the IPR's and a number of favourable decisions in the pre-trial conference as well as a largely favourable outcome to the Markman hearing swung the balance of risks in Nanoco's favour. Nanoco has also commenced further funded litigation in Germany which applies further pressure on Samsung.	1, 3
B **Lack of market adoption of technology** **Responsibility:** CEO	Market fails to commercially adopt technology incorporating the group's nanomaterials.	The group targets a wide range of potential applications. Working with industry leaders to differentiate products from current offerings. Making products commercially competitive.	Down Sensing projects moving closer to commercialisation. Expanded customer portfolio. Expanded range of materials addressing more potential market applications.	1
C **Customer concentration risk** **Responsibility:** CEO/CTO	Reliance on a small number of key customers exposes the group to risk of delays in the customers' own supply chains over which the group can exert limited influence (one customer was 85% of revenue in FY22). These delays can then have a knock-on adverse effect on the group's expected revenue streams.	Commercial strategy in the medium term is to dilute customer concentration risk by selling into various markets, through various channels and to a range of customers. In the past financial year, we have signed up a number of different customers.	Down Customer concentration continues to decrease with more active customer engagements.	1, 3

Key

Risk change	Strategy
Up	1 Growth
Neutral	2 Investment
Down	3 Licensing

Risk description	Potential causes and impact	Mitigation	Change	Link to strategy
Operational				
D **Loss of key personnel** **Responsibility:** CEO	While the group maintains a high level of protected documented IP, our staff remain a critical asset with significant levels of technical and sector know-how. Loss of key personnel would have an adverse impact on the group's development and commercialisation.	The group offers rewarding careers that allow staff to develop new skills while pursuing interesting research ideas. The group reviews remuneration to ensure that appropriate reward packages accompany the fulfilling work environment.	Runcorn relocation led to a small number of staff exits. However, the team is now settled. Review of reward packages has reduced financial incentives to leave. The extended cash runway creates a more stable environment for staff and career development.	1 2
Financial				
E **Lack of adequate resources to sustain the group until it becomes self-sustaining** **Responsibility:** CEO	Revenues from own product sales, services rendered and licensee royalties do not materialise as planned. The group is unable to carry out its operations and hence cannot deliver on medium-term or strategic goals.	Cash will continue to be prudently managed. Focus on revenue-generating activities without abandoning worthwhile and focused R&D work. Cost reduction actions identified if necessary.	Recent equity raise and revenue growth extends cash runway significantly (to CY25) and beyond the point when the group expects to be self-financing.	1 2
Compliance				
F **Major environmental, health and safety ("EHS") issue** **Responsibility:** CEO	Failure to follow existing procedures or a new unforeseen risk could result in injury to staff, equipment, reputation and finances and potential loss of operating licences.	Extensive and ongoing efforts to continuously improve procedures. Renewed leadership focus on the "tone at the top" and cultural change. Continuous training of staff in risks and how to mitigate risks.	Performance on safety has been good this year with an increase in the number of safety opportunities identified in a growing number of leadership audits.	1 2

The Executive team manages a greater number of more detailed risks on an ongoing basis, none of which are considered of strategic importance to the group. The Board reviews the detailed risk register annually to ensure that all strategic risks are being appropriately considered at the Board level while business as usual ("BAU") risks are actively managed by management.

TCFD disclosure 2022

Introduction

Nanoco acknowledges the serious challenges presented by the climate crisis to governments, businesses and communities around the globe. Our direct exposure to climate-related risks is limited, but the group is nonetheless committed to playing its part to mitigate the environmental impacts of our activities and to enhance our resilience to the uncertainties posed by climate change.

As a premium-listed organisation, Nanoco is obliged to make climate-related financial disclosures consistent with the TCFD framework in line with Listing Rule 9.8.6R(8). As a small organisation with only 36 employees and turnover of c.£2.5 million, the business has experienced challenges in achieving full alignment due to limited resources and constrained internal capabilities and capacity and our current strategic focus on protecting the group's operational and R&D capabilities. The disclosures that follow are therefore not fully aligned with the TCFD recommendations at this time and the group is only partially compliant, with a strategy and metrics yet to be fully developed. However, the group is taking progressive steps towards building climate knowledge and capacity, as outlined by the 2023 planned actions described in this statement which we will endeavour to complete within the next reporting cycle.

Governance

The Board takes responsibility for the oversight of all strategic risks facing the business. ESG issues, including the risks associated with climate change, currently fall within the remit of the Audit Committee. The CEO takes responsibility for reporting any relevant environmental or climate-related risks to the Board and its Committees, and the Company Secretary keeps the Board abreast of developments in reporting and performance requirements. ESG related matters will be included on the Board agenda every 6 months.

The Board's members have relevant capabilities related to climate risks and opportunities, including experience navigating sustainable energy markets. The Board acknowledges it can improve upon its broader ESG skill set and knowledge base, which will be considered by the Nomination Committee. As the Board continues to monitor Nanoco's exposure to climate-related risks, it will review whether a sub-committee dedicated specifically to climate risk is appropriate at the Board level. Read more about the Board's roles and responsibilities on page 45.

The leadership team is responsible for the day-to-day management of operational risks. To support oversight of operational risks, the leadership team maintains a risk register of identifiable risks to the business. Within this register, the potential impact of climate change is currently highlighted as a macroeconomic risk factor. Read more about our approach to governing and managing ESG risks on page 34.

2023 planned actions to enhance alignment with TCFD governance recommendations:

- Establish a climate change committee involving all levels of staff to support the management team with the identification and monitoring of climate-related issues and to formalise processes for informing the Board on climate-related risks;
- Explore training opportunities for the Board and wider staff to enhance understanding of climate-related risks; and
- Embed climate-related issues into updates provided on staff days and within employee surveys to enhance engagement across the business on the topic of climate risk.

Strategy

Nanoco acknowledges the need to conduct more comprehensive identification and assessment of climate-related risks and opportunities, as well as the potential impacts of those risks and opportunities on the business model and the organisation's strategic resilience over various timeframes. We outline our initial consideration of climate-related risks within this section, with a focus on transition risks as the area where Nanoco has the most exposure.

Nanoco's products are inputs into consumer goods, and macroeconomic pressures driven by climate-related hazards could impact the future revenues of the business. The group also acknowledges the potential reputational consequences of failing to meet the climate expectations of stakeholders as the world transitions to a low carbon economy. In effect, the group's climate-related risks are indirect, suggesting that climate change is not a principal risk to the business.

In addition to enhancing our understanding of the climate-related risks that could impact our business, the group actively seeks to mitigate its impacts on the climate. Our LEAN project teams are continually searching for more energy efficient and less wasteful ways of getting our products to market. The group promotes low carbon working patterns, including car sharing and cycle-to-work schemes, as well as an electric vehicle ("EV") salary sacrifice scheme. Where possible, we use video conferencing instead of face-to-face meetings, reducing travel-related costs and emissions.

In consideration of climate-related opportunities, Nanoco's product portfolio has potential to support the energy transition. For example, highly absorptive dots can be used in solar energy applications, and the group's display and lighting technologies can support the energy efficiency objectives of our customers. Nanoco's products are also notably free of toxic cadmium, which likely reduces emissions associated with managing the disposal of toxic waste.

Read more about the group's initiatives to promote low carbon practices in its operations on page 36.

2023 planned actions to enhance alignment with TCFD strategy recommendations:

→ The climate change committee will explore opportunities to further mitigate Nanoco's impact on the climate and conduct a deeper assessment of climate-related risks, including the potential impact of risks on capital expenditure plans, future strategy and financial planning; and

→ Explore how the group might conduct qualitative climate scenario analysis in the future

Risk management

As part of the group risk management process, all potential risks are assessed according to the probability of the risk occurring and the potential impact should the risk be realised. In respect to climate change, the group has concluded through initial qualitative assessment and discussion that the business has relatively low exposure to climate-related risks.

However, the group acknowledges that the growing attention on ESG and the widespread consequences of the climate crisis will leave no business untouched. In light of these transformations and following an annual review of the group risk register, Nanoco expects to add ESG-related risks to the register in the next financial year, which will include more robust assessment of the group's exposure to climate-related risks. The integration of this risk into the register will activate a review of the controls and action plans associated with the management process. Read more about the group's approach to risk management on page 27.

2023 planned actions to enhance alignment with TCFD risk management recommendations:

→ Establish new identification and assessment processes to support the monitoring of ESG associated risks with the support and input of the new climate change committee; and

→ Embed consideration for potential climate impacts in the controls and action plans related to the management of risk.

Metrics and targets

The group does not currently monitor any additional climate-related metrics, and therefore has not set any climate-related targets. As the group continues to assess the materiality of climate-related risks and opportunities, we will consider whether new data should be collected and whether relevant targets should be set.

Nanoco does monitor and report environmental performance indicators including waste and energy efficiency metrics. The group's greenhouse gas emissions, including its scope 3 emissions related to business travel, can be viewed on page 35.

2023 planned actions to enhance alignment with TCFD metrics and targets recommendations:

→ Revisit the materiality of scope 3 categories to determine whether additional data is needed to understand the full climate impacts and exposure of the group;

→ Evaluate whether meaningful metrics and targets can be introduced to communicate the energy saving potential of our products to customers; and

→ Work with our landlords to devise strategies to reduce our on-site energy consumption.

Viability statement

The Directors have a reasonable expectation that the group has access to adequate resources to continue in operational existence for the foreseeable future

In accordance with the provisions in the UK Corporate Governance Code (C.2.2 of the 2018 revision), the Directors have assessed the viability of the group's business model and determined that a two-year period continues to be a suitable period to be utilised. A two-year period is considered appropriate given the rapidly evolving nature of the markets for the group's products and the group's early stage of commercial development. As noted in the section on principal risks and uncertainties, market-wide adoption of quantum dot technology is still in its infancy and, until well established in multiple applications, forecasting time horizons will be necessarily short.

The Directors' assessment has been made with reference to the current position of the group and the group's current strategy and principal risks as described in this Strategic report.

Brexit risks are minimal for the group, subject to no significant adverse changes to any trading arrangements that could be a consequence of other geopolitical issues. The group has also demonstrated a strong ability to maintain operations through the Covid-19 pandemic and these protections should be applicable in the event of a resurgence in Covid-19 or a new similar pandemic.

Inflationary pressures are mitigated these by reviewing suppliers and achieving volume breaks. In addition, given the ongoing cost of living crisis, we continue to review market conditions and assess the impact on all stakeholders.

Changes during the year

In the fourth quarter of FY22, we announced a full year contract extension with our important European electronics customer. This demonstrates the commitment of the customer to the technology and also cements Nanoco's place as its "go to" R&D partner for quantum dot based materials. Previous extensions have been measured in months or quarters and hence the new contract is a significant positive change. It also extends beyond the point when the group expects to have visibility of commercial production orders. Finally, the new contract has favourable working capital terms that allow Nanoco to put in place buffer stocks of important raw materials in the run-up to potential production orders.

As noted above, while the adoption of quantum dot technology is in its relative infancy, positive momentum is now being seen in display markets where more companies are entering the market for quantum dot-based TVs. Samsung previously dominated with close to 100% market share but its share is now estimated to be below 90%. RoHS regulations and their international equivalents are also encouraging new market entrants to abandon cadmium- based solutions and to switch to cadmium-free systems. Nanoco's extensive IP in this area, and the emphatic acceptance of the validity of these patents by the US Patent Trial and Appeal Board, will also support the group's proactive business development in the display field.

In the field of sensing, we continue to expand our range of materials on offer and also to increase the number of active customer engagements, with the aim of lowering the risk around customer concentration as well as increasing revenue prospects. Two important grants were won around the end of the financial year from Innovate UK that will also support our drive to expand our material sets and potential applications.

Cost control has continued throughout the year. By exiting our Manchester facility and co-locating all of our activities on our Runcorn site, we will be able to exploit not just operational benefits but also see annualised savings of around £0.7 million (net) per annum from December 2022 when the final exit is complete. This should reduce our annualised cash cost base to just over £4.0 million which in turn lowers our breakeven revenue figure to around £5.0 million, depending on the mix of goods and services in that revenue. We have maintained all of our core capabilities while executing the co-location project which in turn maintains our range of future potential revenue streams.

In June 2022, we announced a significantly over-subscribed equity issue that raised net proceeds of £5.4 million. This extends our organic business cash runway by a relatively long way and into CY25, which is beyond the point when we expect the organic business to be self-financing and also beyond many key dates in the Samsung litigation process.

The viability assessment process

In assessing the viability of the group, the Directors have utilised their forecasts for the period to 31 October 2024 which take into account the group's current and expected business activities and commercial opportunity pipeline, the current cash resources (£6.8 million as at 31 July 2022), the contracted revenue for FY23, and the principal risks and uncertainties faced, including the loan notes which fall due in June 2024. These inputs form the basis of a conservative base case with the main assumptions shown below in the section on going concern.

A two-year time horizon creates scope to win new business and production revenues that could allow the group to become self-financing. It is also a reasonable possibility that the initial outcome of the Samsung lawsuit could be known in this timeframe.

The assumptions above were then flexed to create a "severe but plausible" downside stress test. This includes the assumption that commercial production is delayed by a year and that a number of current active development engagements end with no further service work or material demand. The group remains viable in this scenario. Modelling of an extreme downside for the going concern assessment still shows the group remains viable even if no further commercial wins are achieved beyond those which are already contracted and where the group retreats to become an "IP shell" while the Samsung lawsuit continues. In both scenarios, there is a risk that the loan notes cannot be satisfied as they fall due in June 2024. Management are confident that, as and when the loan notes fall due, suitable actions can be performed, such as an equity fundraise, or the conversion of the loan notes to equity, which would see these repaid at that time.

Conclusion

As a result of the assessment outlined above, the Directors have confirmed that they have a reasonable expectation that the group will remain viable and able to continue in operation and meet liabilities as they fall due over the two-year period of their assessment.

Going concern

All of the following matters are taken into account by the Directors in forming their assessment of going concern:

→ The group's business activities and market conditions are set out on pages 1 to 26.

→ The principal risks and uncertainties are shown on pages 27 to 29.

→ The group's financial position is described in the Financial review on pages 24 to 26.

→ Note 27 to the accounts summarises the group's financial risk management objectives, policies and processes.

For the purposes of their going concern assessment and the basis for the preparation of the 2022 Annual Report, the Directors have reviewed the same trading and cash flow forecasts and sensitivity analyses that were used by the group in the viability assessment as noted above, with the going concern assessment covering the period to November 2023. The same base case and downside sensitivities were also used with the addition of an extreme downside where no uncontracted revenue was included and the group contracted to become an IP shell.

The base case represents the Board's current expectations. Assumptions in the base case are:

→ minimal sales of nanomaterials beyond current contracts-commercial services contracts are based on the existing pipeline of opportunities or agreements already in place;

→ modest demand for commercial production materials in CY23 with a subsequent slow ramp-up in demand;

→ a further extension to the services and supply contract with the European electronics customer;

→ no revenue is assumed from other business lines though some small scale commercial deals are currently under discussion;

→ consolidation of activities on one site in Runcorn to reduce costs with modest staff increases in key areas;

→ small expansion of our self-funded research activities and continued maintenance costs to support our IP portfolio;

→ Board, plc and other costs reflect the current inflationary environment;

→ group remains a going concern and eligible for R&D tax credits; and

→ the installed cost base is capable of supporting significant increases in revenue above those assumed in the base case so there is no immediate requirement for short-term increases or new capital expenditure.

The downside case then flexes those assumptions as follows:

→ a full year delay in small scale commercial production revenues (into CY24); and

→ no new business from other customers once existing active engagements end.

The extreme downside case then flexes those assumptions further as follows:

→ the engagement with the European electronics customer comes to an end without any commercial production;

→ no revenues other than those already contracted; and

→ the group contracts to become an IP shell to protect the value in the Samsung lawsuit.

All three cases above produce cash flow statements that demonstrate that the group has sufficient cash throughout the period of the forecast, being a period to November 2023.

Going concern conclusion

Considering the current financial resources and monthly cash costs of the group, with potential for further mitigating action as noted above, and after making appropriate enquiries, the Directors have a reasonable expectation that the group has access to adequate resources to continue in operational existence for the foreseeable future.

Accordingly, the Directors continue to adopt the going concern basis in preparing the consolidated financial statements. The financial statements do not reflect any adjustments that would be required to be made if they were prepared on a basis other than the going concern basis.

Sustainability

Nanoco recognises that providing a safe, secure and healthy working environment is essential and contributes to productivity and improved performance

The group recognises that, although its primary responsibility under UK corporate law is to its shareholders, it also has responsibilities towards its employees, customers, suppliers and also, ultimately, those consumers who benefit from its products, the broader public and the environment.

Health and safety

Nanoco recognises that providing a safe, secure and healthy working environment is essential and contributes to productivity and improved performance. The health, safety and welfare of all of our employees, contractors and visitors is taken seriously across the entire organisation, with ultimate responsibility lying with the CEO. Health and safety performance is a standing item on each Board and Executive team agenda, and is also discussed within departmental meetings. The group's health and safety policy is reviewed annually. In addition, the Board has established an Environmental, Health and Safety ("EHS") Committee to oversee the implementation of policy and involve staff in generating improvement plans.

There are various improvement and reporting systems in place to monitor the performance of the group's health and safety management system. These initiatives include:

i) reporting all incidents (including near misses) with appropriate ownership, root cause analysis and action tracking systems;

ii) communication of relevant topics and incidents via weekly toolbox talks to all departments;

iii) monthly and quarterly leadership safety and observation audits with the focus on immediate action resolution by the Executive or senior manager leading the audit;

iv) monthly departmental audits with assigned action tracking processes in place to address issues;

v) monthly health and safety reports issued across the organisation to communicate performance against annual metrics and progress on key improvement initiatives and projects;

vi) annual health checks for staff, including tests for chemical exposure where required; and

vii) annual occupational chemical exposure tests using fixed and personal monitors.

A risk assessment programme is in place to identify and mitigate the risks from our operations. These assessments include but are not limited to:

i) the storage, handling and processing of hazardous substances;

ii) fire safety and emergency evacuation;

iii) use of mechanical and electrical equipment; and

iv) other workplace operations involving manual handling and ergonomic risks, working at height and other hazards identified as part of the EHS improvement programme.

All risk assessments are documented and actions assigned and reviewed according to the defined frequency. All research and development functions are actively encouraged to, wherever possible, eliminate or reduce the levels of hazardous substances used in our products and processes. All relevant chemical legislation and regulatory frameworks are used to assess the suitability of a substance prior to use as part of the risk assessment process. Standard operating procedures are documented and regularly reviewed. The group's robust environment, health and safety control environment is evidenced by there being only one externally reportable incident in any category in the last six years.

All controlled documents are reviewed and approved via the electronic document management system. A health and safety induction programme is in place for all new staff and visitors/contractors performing work on our premises. Staff are trained in standard operating procedures, hazard awareness, generic workplace health and safety risks and behavioural safety expectations applicable to their role within the group.

Each stakeholder has different interests, some of which are listed below:

Employees

Nanoco acknowledges its responsibilities for the health and safety of its employees, for their training and development and for treating them fairly. Further information about its employment policies is outlined overleaf.

Customers

Nanoco is responsible for the quality and safety of its products and for the performance of its research and development projects.

Shareholders

Nanoco seeks to increase shareholder value over the long term.

A serious H&S incident could jeopardise our "licence to operate" and threaten shareholder value.

A cross-functional employee health and safety team meets on a monthly basis with representation from all areas of the group, including the Executive team. Effective inputs and outputs from the team are designed to facilitate a greater focus on health and safety and to actively encourage discussions within respective groups.

The group has an excellent safety record and there has only been one reportable incident to the respective UK authorities across all our operations. Nanoco is committed to the continuous improvement of the health and safety management system.

Whole portfolio carbon generation (energy use)

		2022 tCO_2e	2021 tCO_2e	Change
Scope 2	Electricity	276	343	(20%)
	Natural gas	220	128	72%
Scope 3	Air travel	3	0	100%
	Total	499	471	6%

Intensity (tCO_2e/average number of employees)

2022	2021	Change
11.8	10.2	16%

Energy consumption used to calculate emissions (MWh)

2022	2021	Change
2,500	2,314	8%

Data notes

Reporting period	1 August 2021 to 31 July 2022
Boundary	Operational control
Reporting method	The Greenhouse Gas ("GHG") Protocol Corporate Accounting and Reporting Standard
Emissions factor source	Department for Business, Energy & Industrial Strategy, Standard Set 2017
Data changes and restatements	None

Environment

Nanoco is committed to protecting the environment in which our activities are conducted. This commitment is directly expressed in our decision to develop our CFQD® quantum dot products to be free of toxic cadmium, which is still widely used by our competitors in their quantum dot products.

Nanoco has participated actively with regulators on the use of cadmium-based quantum dots in displays and LED light products. The European Commission ("EC") has now made a ruling on the appeal submitted by three companies that the exemption allowing the use of cadmium-based quantum dots in display films should continue. The EC was also considering an appeal for a five-year exemption to allow cadmium-based QDs to be applied directly onto LED chips for displays and lighting.

The EC has received a recommendation that:

- the exemption to allow cadmium (>100ppm) in QD films for display is no longer justified and should be phased out by 31 October 2021; and
- a new exemption is granted to allow cadmium-based QDs applied directly onto LED chips for displays and high CRI lighting for a period of five years.

Both of the above recommendations are subject to the EC adopting the delegated act. It should also be noted that for film-based displays there is not an outright ban which could allow displays with cadmium content below the limits above to continue to be sold. As at the time of writing, the EC has not yet passed the legislation to implement the decisions above and the legal status of the exemption which was due to expire in October 2021 is unclear.

The group's environmental policy aims to foster a positive attitude towards the environment and to raise the awareness of employees towards responsible environmental practices at all sites operated by the group. The group endeavours to ensure compliance with all relevant legislation and regulatory requirements and, where practical and economically viable, standards are developed in excess of such requirements.

The CEO has responsibility for reporting on relevant environmental matters to the Board. There have been no environmental incidents to report to the authorities across all our operations. Shareholders and other interested parties are encouraged to use the online version of the Annual Report and Accounts rather than requesting hard copies. Interested parties are encouraged to visit the group's website or use the regulatory news services instead of a hard copy. Employees are also encouraged to recycle paper, plastic, glass, cardboard and cans wherever possible.

Greenhouse gas ("GHG") reporting

Under the Companies Act 2006 (Strategic and Directors' Reports) Regulations 2013, the group is required to state the annual quantity of emissions in tonnes of carbon dioxide equivalent from activities for which the business is responsible, including the combustion of fuel and the operation of its facilities, and resulting from the purchase of electricity, heat, steam or cooling by the business for its own use.

As both of the group's UK premises are in multi-occupancy sites we place reliance upon their respective landlords to provide the data needed to determine emissions. Our laboratories require continuous negative pressure environments and, consequently, it is not possible to set realistic reduction targets in the consumption of electricity.

The exit from the first floor of our Manchester facility has reduced our related emissions to nil. The exit from the remainder of the Manchester site will effectively eliminate it as a source of emissions for Nanoco with only a small increase in Runcorn emissions from the co-location of our activities to one site.

Our gas consumption is used for heating premises and site costs are shared between tenants on the basis of area of occupancy. In the absence of significant amounts of revenue from the sale of commercial products, the emissions of the business primarily arise from the occupation of its research and administration facilities rather than from revenue related production operations.

Following the decision to surrender the group's US office space, Nanoco emissions in that location have reduced to nil. Our emissions, based on appropriate conversion factors published by the Department for Business, Energy & Industrial Strategy, for the current year are shown in the charts above.

Sustainability continued

Environment continued

Waste

During the year, the group generated 9.3 tonnes of waste (2021: 7.6 tonnes) and recycled 3.8 tonnes of this (2021: 2.9 tonnes). The group engages a specialist contractor to incinerate batches of chemicals and dispose of other materials no longer required. All waste contractors are assessed to ensure the waste hierarchy approach is applied to all of our materials handled, and that their operations and systems are compliant with the relevant legislation. Audits are performed every three years in line with our duty of care as a waste producer.

Other environmental matters

Consideration of the benefits to the environment is a significant factor in decisions regarding investments to upgrade the group's research and development facilities in Manchester and Runcorn.

Video conferencing is used where possible instead of physical travel in order to reduce the group's environmental footprint through fewer flights and other means of travel. Lessons learned from continuing operations during the Covid-19 pandemic have continued to be adopted.

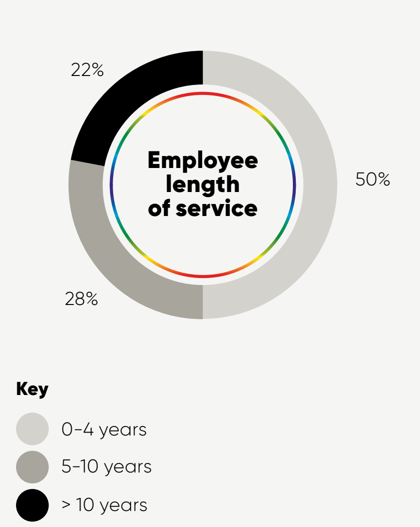
The group's display, lighting and solar technologies all sit in the energy efficiency and low environmental impact arena and, as such, will enable customer companies to increase the uptake of their products while reducing their impact on the environment.

Attraction and retention

Recruiting technical specialists has always been key to Nanoco's success. In a highly competitive market this means that we strive to offer a competitive benefits package and an attractive workplace culture to ensure that we attract and retain the best of the best. The number of long-serving employees demonstrates Nanoco's ability to retain top talent; out of 36 employees at 31 July 2022, 22% had over ten years' length of service and a further 28% had between five and ten years' service.

Nanoco operates an employee referral scheme for recruiting new talent. Referrals from existing employees are a valued source of new recruits, typically introducing high quality candidates with a better cultural fit.

Nanoco has a comprehensive onboarding process for new joiners which includes H&S, HR, intellectual property, IT, finance and corporate induction sessions. The aim of this is to get employees engaged from their first day at Nanoco, and fully equipped to work towards Nanoco goals from the very beginning of their Nanoco career.



Employees with disabilities

It is Nanoco's policy that people with disabilities, including job applicants and employees, should be able to participate in all of Nanoco's activities fully on an equal basis with people who are not disabled. Nanoco strives to promote an environment free from discrimination, harassment and victimisation.

Nanoco has a disability inclusion policy that states that Nanoco will not, on the grounds of a person's disability, or for a reason relating to a person's disability, treat that person less favourably than it treats, or would treat, others to whom the same reason does not or would not apply, unless genuinely justified.

Covid-19

Whilst essential work carried on at Nanoco through the lockdown period, staffing levels were reduced at various times in line with Government guidance. Because of the EHS training which all managers and staff undergo, EHS standards were maintained and there was no impact on health and safety due to the reduction in numbers during affected periods. Measures were taken by the Company to address the risk of Covid-19 on the Company and employees, including but not limited to:

- risk assessments for both sites;
- PPE policies and protocols for prevention of infection;
- social distancing;
- shielding for vulnerable workers;
- login system for staff, and supervision by management which can be accessed remotely;
- liaising with the Employee Voice Committee to address any concerns; and
- return to work assessments for all employees.

At the point of appointment, Nanoco obtains occupational health advice as to reasonable adjustments. For disabled employees we put together a "Reasonable Adjustment Action Plan" to support employees with disabilities or health conditions by removing or minimising workplace barriers. These plans are reviewed collaboratively between managers and employees to ensure that they remain relevant. Culturally, we believe that it is important to offer adjustments in a proactive manner where appropriate rather than waiting for our employees to request these.

Nanoco currently employs one person with a disability with a series of reasonable adjustments in place to support this important member of staff.

Engagement and wellbeing

Communication channels at Nanoco include all-Company meetings, leadership meetings, and senior team meetings which then cascade information down. Communication media used includes the group intranet, all-group email briefings and online meeting software. Our line managers hold regular team meetings, cross-functional working group meetings and management one-to-one updates with their team members.

Nanoco is committed to a policy of engaging employees in the activities and growth of the group. Human resources and senior management review communication channels via the use of employee surveys and plan communication activities to ensure employees are fully informed of current business strategy and financial results or corporate news.

Corporate communication is key to the engagement of our workforce. We have focused on improving the look, feel and content of Company-wide electronic communications in order to make these more engaging to employees.

Aligning the entire Nanoco organisation to ensure that we focus on what is important to achieve our goals is critical to our success. In order to help us navigate the exciting opportunities in front of us it is crucial that as Nanoco employees and managers we make conscious, careful and informed choices about how we allocate our time and energy – as individuals and members of teams.

We believe that building a positive partnership between strategic management and the wider workforce is crucial to Nanoco's success. Our people are our best problem solvers and possess the insight on how we can make Nanoco a top organisation to work for. We have therefore started an exercise to roll out LEAN training to all members of staff and the first cohort completed their initial training in the fourth quarter of the financial year.

To improve our employee engagement, in 2019 we established the Employee Voice Committee, which gives employee representatives a forum to raise concerns and communicate directly with Board members.

A meaningful employee voice will support us as an organisation undergoing change and responding to industry changes. A direct link with the Board also enables our Board members to better understand the diverse nature of the Company, allowing them to execute their roles more effectively.

Recognition

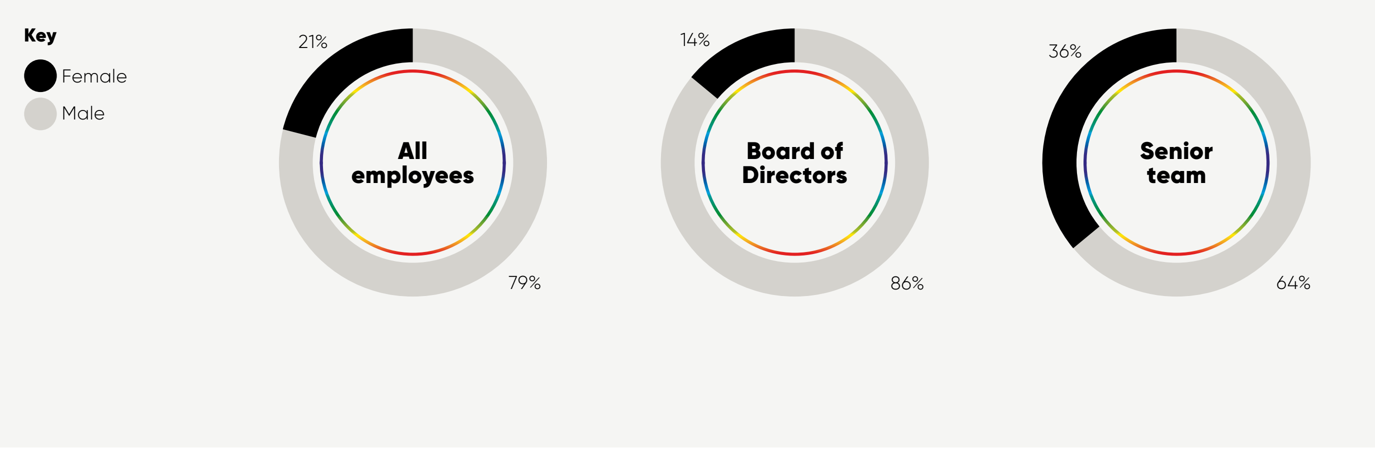
Nanoco recognises that it has a duty to ensure the health, safety and welfare of its employees as far as reasonably practicable. This includes physical, mental and social wellbeing. It is also required to have in place measures to mitigate as far as practicable factors that could harm employees' physical and mental wellbeing, which includes work related stress.

Nanoco, as part of its wellbeing strategy, puts particular focus on mental health. It does so through a variety of means including events such as Mental Health Awareness Week, mindfulness sessions and charity events to raise awareness of the support available to those that suffer from mental health issues. We encourage an open door policy where employees are able to disclose and receive support for any mental health issues they may face.

The employee assistance programme, as part of the wellbeing policy, provides caring and compassionate support to help people cope and build resilience. Both telephone counselling and face-to-face counselling are available to all employees through the programme. This support aims to reduce absence and improve wellbeing by addressing issues head on and reducing their impact.

Sustainability continued

Gender diversity at Nanoco (at 31 July 2022)



Equality and diversity

Racial and geographical diversity

The group's employees are from many different backgrounds, including seven different nationalities: American, British, German, Indian, Italian, Lithuanian and Portuguese.

In addition, group employees come from a range of business backgrounds, not purely research and development. Indeed, of the Board members, previous roles and responsibilities include those in the supply of chemicals and the engineering, electronics, life sciences, fast-moving consumer goods, publishing and financial industries.

Nanoco will appoint, train, develop, reward and promote on the basis of merit and ability. Nanoco's equal opportunities policy states that employees will not receive less favourable treatment or consideration on the grounds of age; disability; gender or gender reassignment; marriage and civil partnership status; pregnancy and maternity; race; religion or belief; sex; sexual orientation; or part-time status, nor will they be disadvantaged by any conditions of employment that cannot be justified as necessary on operational grounds relevant to the performance of the job.

The group's equal opportunities policy is reviewed annually and is available to employees on the group intranet. A copy can be obtained upon request from the Company Secretary.

Ethics

Nanoco aims to demonstrate and promote high standards of honest and ethical conduct throughout the group. Formal policies and procedures are reviewed annually and the policies listed below are available on the group intranet or upon request from the Company Secretary. All group employees are required to adhere to specified codes of conduct, policies and procedures, including, but not limited to, the:

→ anti-bribery and corruption policy;

→ whistleblowing policy; and

→ equal opportunities policy.

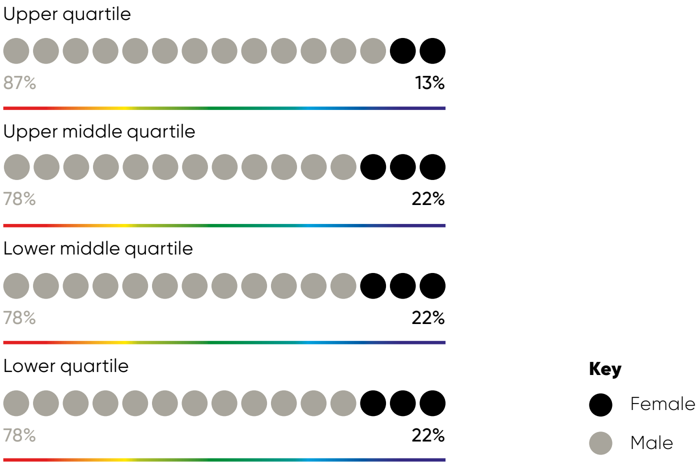
Nanoco is a member of the Chemical Industries Association ("CIA") and applies the principles of Responsible Care® to all of its operations.

All Nanoco employees are required to complete annual training in the areas of cyber security, GDPR and information security to ensure they remain up to date and alert to the signs of fraud and unethical practices.

Nationalities represented by our employees

7

Proportion of males and females in each income quartile



Gender pay gap

Mean hourly earnings	Median hourly earnings
£22.32 Total[1]	**£21.70** Total[1]
£21.69 Male[1]	**£20.41** Male[1]
£24.55 Female[1]	**£23.30** Female[1]

1 Excluding Directors.

Gender pay gap

Scientific research is a sector challenged by a lack of gender diversity, but we feel that we have an opportunity to challenge this status quo. Nanoco believes in being an inclusive and diverse organisation where everyone is able to reach their full potential. The challenge in our organisation and across Great Britain is to eliminate any gender pay gap; we therefore voluntarily analysed gender pay gap data as at 31 July 2022. We can use these results to assess the levels of gender equality in our workplace and the balance of male and female employees at different levels.

At the snapshot date of 31 July 2022, Nanoco employed 36 employees (2021: 39) in the UK, of whom 21% were female (2021: 18%). Employees work across a variety of roles in research and production environments.

Overall female representation across the quartile pay bands corresponds fairly closely to the percentage of female to male employees overall.

The median gender pay gap for all Nanoco employees excluding Directors is (12%) (2021: (6%)). This means that for every £1 the median man earns at Nanoco, the median woman earns £1.12. The national average pay gap in 2021 for all UK employees is 14.9%[1] in favour of men compared to Nanoco's 12.4% gap in favour of women.

1 Source: Annual Survey of Hours and Earnings ("ASHE") – Office for National Statistics.

On behalf of the Board

Dr Christopher Richards
Chairman

Brian Tenner
Chief Executive Officer
28 October 2022

Strategic report approval

The Strategic report on pages 6 to 39 incorporates:

- → Chairman's statement
- → Chief Executive Officer's statement
- → Our business model
- → Our strategy
- → Key performance indicators
- → Principal risks and uncertainties
- → Viability statement
- → TCFD disclosure
- → Sustainability

Brian Tenner
Chief Executive Officer
28 October 2022

Board of Directors

Our refocused Board comprises experienced and talented people from scientific, chemical, industrial, commercial and financial markets backgrounds

Key

- A Audit Committee
- N Nominations Committee
- R Remuneration Committee
- ◯ Chair

Dr Christopher Richards

Non-Executive Chairman

Appointed
Chris was appointed Chairman of Nanoco Group plc in May 2016, having joined the Board as a Non-Executive Director in November 2015.

Skills and experience
Following a successful international career in the agrochemical and life sciences industries, Chris has become a highly experienced non-executive director and business adviser. Chris is the former Chief Executive Officer of Arysta LifeScience, a Japan-based agrochemical business which grew rapidly under his leadership. After stepping down as CEO in 2010, he became Arysta LifeScience's Non-Executive Chairman until the sale of the business in 2015 to Platform Specialty Products.

After gaining his DPhil from the University of Oxford in Biological Science, Chris worked as a research scientist for four years. He began his executive career in 1983 in the Plant Protection division at Imperial Chemical Industries plc, which later became Syngenta. For 20 years, he has lived in various countries including Colombia and Japan and led international marketing and commercial functions.

Other roles
Chris currently holds a number of non-executive roles at quoted and private businesses. He is the Chairman of Plant Health Care plc (AIM: PHC) and a Non-Executive Director of Origin Enterprises plc (AIM: OGN).

Committees
N R

Brian Tenner

Chief Executive Officer

Appointed
Brian was appointed Chief Executive Officer in September 2020. He originally joined the Board as Chief Operating Officer and Chief Financial Officer in August 2018. He has had a significant impact on the group's performance in his time with Nanoco, particularly in sharpening the commercial focus, providing people leadership in the UK and improving cost control. Brian also previously served as the Company Secretary.

Skills and experience
Prior to joining Nanoco, Brian held a number of senior executive positions with both publicly listed and private multinational companies. His roles have typically encompassed the full range of commercial, operational and financial activities with an emphasis on leading change and transformation programmes. Brian's previous roles include Interim CEO and subsequently CFO of NCC (LSE: NCC) from 2017 to 2018 (cyber security professional services) and CFO of Renold plc (LSE: RNO) from 2010 to 2016 (engineering manufacturing), Scapa plc (AIM: SCPA) from 2007 to 2010 (speciality chemicals) and British Nuclear Group from 2003 to 2007 (hi-tech chemicals and large-scale decommissioning projects). Brian qualified as a Chartered Accountant with PwC in 1994. He holds a Law degree (LLB Hons) from Edinburgh University.

Other roles
None.

Dr Nigel Pickett

Chief Technology Officer

Appointed
Nanoco's technology team is led by Nigel, who is a co-founder of Nanoco and inventor of Nanoco's key quantum dot scale-up technology. In 2000 he moved to Manchester where he co-founded Nanoco Technologies in 2001.

Skills and experience
Nigel has co-authored over 70 academic papers and is an inventor on 150 patents and pending applications. He has a passion for and experience in taking research work from the academic bench through to full commercialisation. Nigel graduated from Newcastle University in 1991 and chose to remain at Newcastle to pursue a PhD in the field of main group organometallics and is a Fellow of the Royal Society of Chemistry. After graduation in 1994 he undertook a postdoctoral fellowship at St Andrews University, Scotland, in the field of precursor design for metalorganic vapour phase epitaxy ("MOVPE") growth and synthesis of nanoparticles using chemical vapour deposition ("CVD") techniques. In 1996 he won a Japan Society for the Promotion of Science ("JSPS") fellowship and spent the following year working at Tokyo University of Agriculture and Technology, Japan. In 1998 he became a Research Fellow at Georgia Institute of Technology, US, working on the design and evaluation of precursors used in MOVPE.

Other roles
None.

Liam Gray

Chief Financial Officer and Company Secretary

Appointed
Liam was appointed to the Board in November 2021. He originally joined the Company as Group Financial Controller in March 2019, before becoming Finance Director and then subsequently joining the Board.

Skills and experience
Liam started his career at KPMG LLP, where he qualified as a Chartered Accountant working primarily in audit on both large and medium-sized public and private companies. After six years at KPMG LLP he moved to Renold plc (LSE: RNO), initially as Group Financial Controller before moving into the European division as Commercial Finance Manager. He holds an Accountancy degree from the University of Liverpool.

Other roles
None.

Dr Alison Fielding

Non-Executive Senior Independent Director

Appointed
Alison was appointed to the Board in April 2017.

Skills and experience
Alison holds an MBA from Manchester Business School, a PhD in Organic Chemistry and a first-class degree in Chemistry from the University of Glasgow and an MSc in Mindfulness from the University of Aberdeen.

Alison started her career at Zeneca PLC (now Astra Zeneca) followed by five years at McKinsey & Company and later co-founded Techtran Group Limited, which was acquired by IP Group in 2005, where she held the role of Director and COO until 2013. Whilst at IP Group, she also sat on the board of and advised several early stage and quoted IP Group-backed technology companies.

Other roles
Alison is currently a Non-Executive Director of Maven Income and Growth VCT PLC, a Non-Executive Director of Thomas Swan & Co. Limited, and a Non-Executive Director of Zotefoams plc.

Committees
A N R

Chris Batterham

Non-Executive Director

Appointed
Chris was appointed to the Board in April 2019.

Skills and experience
Chris holds a Natural Sciences degree from Cambridge University. He then qualified as a Chartered Accountant with Arthur Andersen LLP in 1979 where he spent his early career.

Chris has considerable financial and operational experience and became the Finance Director of Unipalm Group plc, from 1996 to 2001. He then went on to become CFO of Searchspace Group Limited from 2001 until 2005. Chris then went on to hold a number of non-executive roles across a range of companies with a technology focus in many cases.

Other roles
Chris is currently a Non-Executive Director of NCC Group plc.

Committees
A N R

Henry Turcan

Non-Executive Director

Appointed
Henry was appointed to the Board in September 2021 and stepped down in August 2022 as the group's financial position was significantly improved.

Skills and experience
Henry has worked in financial services since 1996, with a focus on equity capital markets. Having spent the first part of his career advising growth companies within investment banking, he joined the Volantis team at Henderson Global Investors in 2015 which subsequently transferred to Lombard Odier Investment Management in 2017, becoming known as 1798 Volantis. Henry graduated with an MA (Hons) in Modern Languages from Edinburgh University. Henry is a representative of the funds managed or sub-advised by Lombard Odier Asset Management group entities, collectively the group's largest shareholder.

Other roles
Henry is currently a Non-Executive Director of Arena Events Plc, Woodbois Limited and Minds + Machines Group Limited.

Corporate governance statement

Good governance is of particular importance in times of uncertainty and business change due to the additional challenges that arise

DR CHRISTOPHER RICHARDS
Chairman

I am pleased to present the Corporate governance report for the year ended 31 July 2022. This section of the Annual Report describes our corporate governance structures and processes and their application throughout the year ended 31 July 2022.

The Board's view on corporate governance

The UK Corporate Governance Code embodies core principles of accountability, transparency, probity and a focus on long-term success. The Board firmly believes that a company governed in accordance with these principles is more likely to be successful and that this is all the more important in times of significant uncertainty.

The Board and its Committees play a central role in the group's governance by providing an external and independent perspective on matters material to Nanoco's stakeholders, and by seeking to ensure that effective internal controls and risk management processes are in place.

The Board also promotes a culture of good governance throughout the group by creating an environment of openness, transparency and accountability.

The members of the Board bring a wide range of skills and experience to the group as set out on pages 40 and 41. This was bolstered during the year by the appointment of Liam Gray as CFO and Henry Turcan from Lombard Odier as a Non-Executive Director. The diverse skill set allows the Board to appropriately challenge and lead the group's strategy.

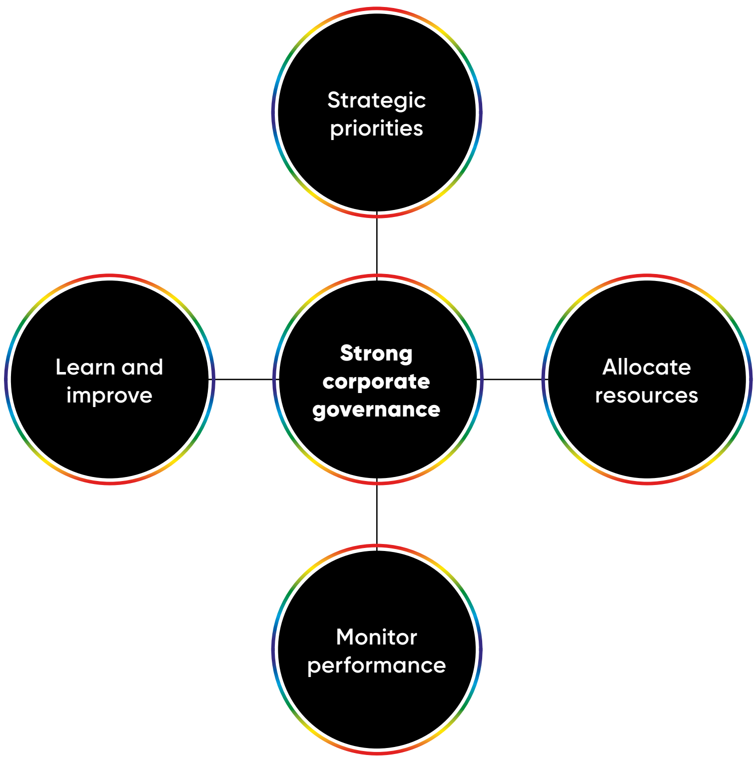
Board focus during the year

Agreeing strategic priorities with the Executive Directors

The Board has devoted considerable time to strategic discussion in the current year. Over the last two years, the Company has broadened the focus of development beyond CFQD® cadmium-free quantum dots into a range of dot-based nanomaterials for sensing. We are pleased to report that the Company has made great strides in expanding the portfolio of products in development and expanding the customers with whom we are working.

Monitoring the lawsuit against Samsung

The Board felt compelled to act to defend the group against what we believe is Samsung's wilful infringement of our IP portfolio in a number of areas. Given the potential value of this action, the Board established a Litigation Sub-Committee to work with the Executive team to oversee the litigation strategy. This Sub-Committee includes the Board Chairman and the Senior Independent Director, together with the CEO, CTO and Litigation Special Advisor, and meets monthly.



Attendance	Board	Audit Committee	Nominations Committee	Remuneration Committee
Number of meetings	11	4	3	6
Executive Directors				
Brian Tenner	10[3]	3[1,3]	3[1]	4[1,3]
Dr Nigel Pickett	11	–	–	–[1]
Liam Gray	8[2]	4[1]	–	–[1]
Non-Executive Directors				
Dr Christopher Richards	11	4	3	6
Dr Alison Fielding	11	4	3	6
Chris Batterham	11	4	3	6
Henry Turcan	8[2]	–	–	–

The Non-Executive Directors met three times during the year without any Executive Directors present.

1 Executive Directors attended these meetings by invitation and are not members of these Committees.

2 Liam Gray and Henry Turcan joined the Board part way through the year.

3 Brian Tenner missed a series of meetings due to being absent on company business.

Board focus during the year continued

Fundraising and restructuring

The Board remains mindful of the group's cash position and limited financial resources. It is important that the group retains its operational capabilities whilst working with customers with a view to commercial production of a product. It was therefore encouraging for the Board and the group that during the financial year there was a successful and significantly over-subscribed fundraise, which resulted in a net cash inflow of £5.4 million. This extends the group's cash runway to CY25.

Overall management of risk and change within the group

The rapidly evolving challenges brought about by Brexit, the Covid-19 pandemic, the Ukraine crisis, the cost of living crisis and other macroeconomic factors, against a background of Executive changes, have required active real-time engagement between all members of the Board.

These focus areas were in addition to the normal ongoing responsibilities for approving the annual operating and capital expenditure budgets and any material changes to them.

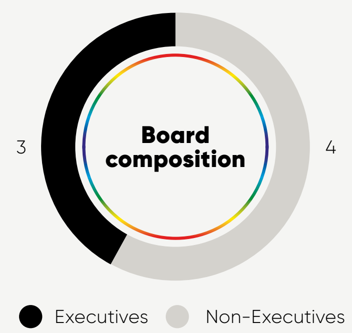
A typical Board agenda

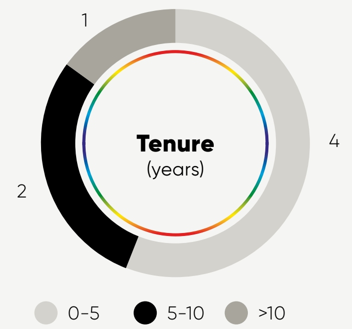
Each full Board meeting is structured around a standard agenda of standing items that then includes a number of additional specific focus items for that month's meeting. These focus items are either recurring items (such as risk management) or are in response to emerging issues in our markets, regulation, or the business itself. An example of an agenda taken from the June 2022 meeting is shown below:

→ minutes and matters arising from previous meetings (standing item);

→ CEO report on business performance (standing item);

→ CEO report on progress and customer deliverables (standing item);





Corporate governance statement continued

A typical Board agenda continued

- → CEO report on Samsung litigation and third party funding (focus item);
- → CFO report on financial performance and rolling forecasts (standing item);
- → CTO report on technical and IP matters (standing item);
- → Company Secretary report on governance issues and any material litigation (standing item);
- → investor relations update (standing item);
- → reports from Committee Chairs (Audit, Nominations, Remuneration and EHS) (standing item); and
- → any other business (standing item).

Certain key senior management members are invited to give presentations at Board and Committee meetings where appropriate.

Other areas, including the review of the group risk register, the strategic plan, the annual budget, contentious matters, succession planning, etc, are reviewed by the Board during each year at intervals commensurate with their importance.

My role as Chairman

The structure of the Board, its Committees and their respective responsibilities are summarised on pages 45 and 46. My key focus is to ensure that Nanoco has an effective Board which is collectively responsible for the long-term success of the group. One of my most important jobs is to ensure that the Board and its Committees have the right balance of skills, experience and knowledge suitable for Nanoco's evolving strategy and growth aspirations as we progress through a new phase of our development.

Board and Committee evaluation

Regular and appropriate Board and Committee evaluation is vital to improving Board effectiveness. This year, given the extremely uncertain operating environment, it was again felt that an external performance review would not be as value adding as it would be in future with a more established Board. Therefore, I once again conducted an internal Board evaluation process, which was discussed by the Board. Overall, it was concluded that the Board and Executive team performed well during the year. The quality of information, focus and discussion had improved and Directors felt fully able to voice their differing opinions. In addition, the review identified areas of potential improvement, such as composition and strategy, to further enhance the Board's performance.

Once again it was felt that the balance of time allocated to strategy, operations and functional areas and governance was broadly correct. The Board displayed great flexibility and nimbleness in responding to rapidly emerging issues. Throughout the year, the Board has maintained good corporate governance and challenged management to continue to improve the processes and systems that underpin the group's normal operating activities.

Each of the Audit Committee, Remuneration Committee and Nominations Committee carried out an internal self-evaluation of their effectiveness during the year. The conclusion from the Committee reviews is that, overall, the Committees are working well.

Shareholder engagement activities

Engagement with shareholders remains an important activity for the Board. The group maintained its more formal calendar of engagement with shareholders and potential investors.

Longer-term viability statement

The group utilised the forecast for the next two years to assess its long-term viability. The two-year period was chosen due to the inherent difficulty and uncertainties in preparing forecasts for the group at its current stage of development. Further details are provided on pages 32 and 33.

Statement of compliance with the Code

I am pleased to confirm that the Board considers that it has been in compliance with the Code throughout the year ended 31 July 2022 in all material areas.

With the changes in the Board in the financial year, which at year end comprised the Non-Executive Chairman, three independent Non-Executive Directors and three Executive Directors, the Board considers that the size and composition of the Board is appropriate for the group's current stage of development and has sufficient depth and breadth of experience amongst its current Board members.

Dr Christopher Richards
Chairman
28 October 2022

Governance framework

The different parts of the Company's governance framework are shown below, with a description of how they operate and the linkages between them.

Board

The Board provides leadership and is responsible for the overall management of Nanoco, its strategy, governance, long-term objectives and risk management.

It ensures the right Company structure is in place to deliver long-term value to shareholders and other stakeholders.

Board Committees

Support the Board in its work with specific areas of review and oversight objectives and risk management. They ensure the right Company structure is in place to deliver long-term value to shareholders and other stakeholders.

Audit Committee

Primary function is to assist the Board in fulfilling its financial and risk responsibilities. It also reviews financial reporting and the internal controls in place and the external audit process.

Nominations Committee

Responsible for considering the Board's structure, size, composition and succession planning.

Remuneration Committee

Responsible for determining the overall remuneration of the Executive Directors and the remuneration of senior managers within the broader institutional context of remuneration practice.

Chief Executive

Has responsibility for managing the business and overseeing the implementation of the strategy agreed by the Board.

Leadership team

The Leadership team currently represents the group's most senior business and operational Executives. It is responsible for assisting the Chief Executive in the performance of its duties including:

- developing the annual operating plan;
- monitoring the performance of the different divisions of the Company against the plan;
- carrying out a formal risk review process;
- reviewing the Company's policies and procedures;
- prioritisation and allocation of resources; and
- overseeing the day-to-day running of the Company.

Corporate governance statement continued

Board composition and division of responsibilities

Role profiles are in place for the Chairman, Chief Executive Officer and others, which clearly set out the duties of each role.

Role	Responsibilities
Chairman of the Board (Dr Christopher Richards)	Is responsible for the running of the Board and promoting a culture of openness and debate. The Chairman, in conjunction with the CEO and other Board members, plans the agendas, which are issued with the supporting Board papers in advance of the Board meetings. These supporting papers provide appropriate information to enable the Board to discharge its duties which include monitoring, assessing and challenging the Executive management of the group.
Chief Executive Officer (Brian Tenner)	Together with the senior management team, is responsible for the day-to-day running of the group and regularly provides performance reports to the Board. The role of CEO is separate from that of the Chairman to ensure that no one individual has unfettered powers of decision making. The CEO works directly through the Leadership team (CTO, CFO and Production Manager).
Chief Financial Officer (Liam Gray)	Works closely with the CEO and CTO to support them in the delivery of their roles. Key objectives are to ensure the smooth running of many of the back office functions. Includes responsibility for all financial matters including costings and plant efficiencies as well as commercial margins.
Chief Technical Officer (Dr Nigel Pickett)	Responsible for all research and development activities of the group. Includes stewardship of the group's IP portfolio, new additions and maintenance. Takes leadership position on critical new research areas.
Senior Independent Director (Dr Alison Fielding)	Provides a sounding board for the Chairman and serves as an intermediary for other Directors, employees and shareholders when necessary. The main responsibility is to be available to the shareholders should they have concerns that they have been unable to resolve through normal channels or when such channels would be inappropriate.
Other Non-Executive Directors (Chris Batterham, Henry Turcan)	Maintains an ongoing dialogue with the Executive Directors which includes constructive challenge of performance and the group's strategy.
Company Secretary (Liam Gray)	Ensures good information flows within the Board and its Committees and between senior management and Non-Executive Directors. The Company Secretary is responsible for facilitating the induction of new Directors and assisting with their professional development as required. All Directors have access to the advice and services of the Company Secretary to enable them to discharge their duties as Directors. The Company Secretary is responsible for ensuring that Board procedures are complied with and for advising the Board through the Chairman on governance matters. The appointment and removal of the Company Secretary is a matter for the Board as a whole.

Experience of the Board

The members of the Board bring a wide range of skills and experience to the group. This diverse skill set allows the Board to appropriately challenge and lead the group's strategy.

The chart below summarises its key areas of significant experience.

Name	Strategy development	Chemical	Human resources	Corporate governance	Financial management	M&A	ESG
Dr Christopher Richards	✓	✓	✓	✓	–	✓	–
Dr Nigel Pickett	✓	✓	–	–	–	–	–
Brian Tenner	✓	–	✓	✓	✓	✓	✓
Liam Gray	✓	–	✓	✓	✓	–	✓
Dr Alison Fielding	✓	✓	–	✓	✓	✓	✓
Chris Batterham	✓	–	–	✓	✓	✓	–
Henry Turcan	✓	–	–	–	✓	✓	–

Dr Christopher Richards
Chairman
28 October 2022

Compliance with the UK Corporate Governance Code 2018

The below provides a guide to the most relevant explanations for how the Company has complied with each Principle.

Board leadership and Company purpose	Page reference
A. An effective and entrepreneurial Board promotes the long-term sustainable success of the Company, generating value for shareholders and contributing to wider society.	P34–39
B. Purpose, values and strategy are set and align with culture, which is promoted by the Board.	P40–44
C. Resources allow the Company to meet its objectives and measure performance. A framework of controls enables assessment and management of risk.	P22–23, P27–29, P55–60
D. Engagement with shareholders and stakeholders is effective and encourages their participation.	P16–17
E. Oversight of workforce policies and practices ensures consistency with values and supports long-term sustainable success. The workforce is able to raise matters of concern.	P16–17, P34–39
F. The diversity policy applied to the issuer's administrative, management and supervisory bodies with regard to aspects such as, for instance, age, gender, or educational and professional backgrounds.	P34–39

Division of responsibilities	Page reference
G. The Chair is objective and leads an effective Board with constructive relations.	P40–41, P42–51
H. The Board comprises an appropriate combination of Non-Executive and Executive Directors, with a clear division of responsibilities.	P40–41
I. Non-Executive Directors commit appropriate time in line with their role.	P40–41, P42–51, P52–63
J. The Company Secretary and the correct policies, processes, information, time and resources support Board functioning.	P42–51

Composition, succession and evaluation	Page reference
K. There is a procedure for Board appointments and succession plans for Board and senior management which recognise merit and promote diversity.	P52–54
L. There is a combination of skills, experience and knowledge across the Board and its Committees. Tenure and membership are regularly considered.	P40–41, P43, P46
M. Annual evaluation of the Board and Directors considers overall composition, diversity, effectiveness and contribution.	P44

Audit, risk and internal control	Page reference
N. Policies and procedures ensure the independence and effectiveness of internal and external audit functions. The Board satisfies itself of the integrity of financial and narrative statements.	P55–60
O. A fair, balanced and understandable assessment of the Company's position and prospects is presented.	P32–33
P. Procedures manage and oversee risk, the internal control framework and the extent of principal risks the Company is willing to take to achieve its long-term strategic objectives.	P20–21, P27–29, P32–33

Remuneration	Page reference
Q. Remuneration policies and practices are designed to support strategy and promote long-term sustainable success, with Executive remuneration aligned to Company purpose, values and strategic delivery.	P61–79
R. A transparent and formal procedure is used to develop policy and agree Executive and senior management remuneration.	P61–79
S. Independent judgement and discretion is exercised over remuneration outcomes taking account of the relevant wider context.	P61–79

The Code is published by the Financial Reporting Council, a full copy of which can be viewed on its website, www.frc.org.uk.

Corporate governance statement continued

This section of the Corporate governance report contains the group's other reporting disclosures on corporate governance required by the Companies Act 2006, the UK Corporate Governance Code 2018 (the "Code") and the UKLA's Disclosure and Transparency Rule 7 including the required statement of compliance. A copy of the Code is publicly available at https://www.frc.org.uk.

Disclosure and Transparency Rule 7

This statement complies with sub-sections 2.1, 2.2(i), 2.3(i), 2.5, 2.7 and 2.10 of Rule 7 of the UK Listing Authority Disclosure Rules. The information required to be disclosed by sub-section 2.6 of Rule 7 is shown in the Statement of Directors' responsibilities on page 83 and is incorporated in this section by reference.

The Board

The group is controlled through its Board of Directors. The Board's main responsibilities and those of its various sub-committees are set out on pages 45 and 46 and are summarised opposite.

To enable it to discharge its key responsibilities as set out above, the Board receives appropriate and timely information prior to each meeting. A formal agenda is set by each Chair and Committee papers are distributed several days before meetings take place. Any Director may challenge group proposals, and decisions are taken democratically after discussion. Any Director who feels that any concern remains unresolved after discussion may ask for that concern to be noted in the minutes of the meeting. Specific actions arising from meetings are agreed by the Board and then appropriately followed up.

The terms of reference of the Committees are publicly available at www.nanocotechnologies.com. The same pages of the Annual Report show the key officers and the division of responsibilities and duties between each role holder.

The Directors

There is a formal, rigorous and transparent procedure for the appointment of new Directors to the Board, which is led by the Nominations Committee.

All Directors are then subject to election by the shareholders at the next general meeting following appointment to the Board. In accordance with best practice, they are then subject to annual re-election thereafter. The contracts of the Non-Executive Directors are available for inspection by shareholders at the AGM.

The Chairman has sufficient time to devote to his duties as Chairman and this has been demonstrated by his active participation in the group's activities.

The Non-Executive Directors constructively challenge and help develop proposals on strategy and bring strong, independent judgement, knowledge and experience to the Board's deliberations.

The Directors are given access to independent professional advice at the group's expense when the Directors deem it is necessary in order for them to carry out their responsibilities.

The group maintains, for its Directors and officers, liability insurance for any claims against them in that capacity.

Donations

During the year the group made no political or charitable donations.

Independence and conflicts of interest

The group has effective procedures in place to deal with potential conflicts of interest. The Board is aware of the other commitments of its Directors and changes to these commitments are reported to the Board. The Companies Act 2006 requires Directors to avoid situations where they have, or could have, a direct or indirect interest that conflicts or potentially conflicts with the interests of the group.

Directors are required to declare in advance of a Board meeting whether any of the business to be discussed in that meeting gives rise to a conflict or potential conflict. That Director will then be excluded from the relevant discussions unless agreed otherwise by the Directors of the group in the limited circumstances specified in the Articles of Association. They will not be counted in the quorum or permitted to vote on any issue in which they have an interest.

The Board considers its independent Non-Executive Directors to be independent in character and judgement. No Non-Executive Director has been an employee of the group; has had a material business relationship with the group; receives remuneration other than a Director's fee; has close family ties with any of the group's advisers, Directors or senior employees; or holds cross-directorships.

Professional development

On appointment, each Director takes part in an induction programme in which they receive comprehensive information about the group; the role of the Board and the matters reserved for its decision; the terms of reference and membership of the Board and Committees and the powers delegated to those Committees; the group's corporate governance practices and procedures, including the powers reserved to the group's most senior Executives; and the group's latest financial information. Throughout their period in office the Directors are updated on the group's business, the competitive environment in which it operates, corporate social responsibility matters and other changes affecting the group and the industry it operates in as a whole.

The group acknowledges the importance of developing the skills of the Directors to run an effective Board. To assist in this, Directors are given the opportunity to attend relevant courses and seminars to acquire additional skills and experience to enhance their contribution to the ongoing progress of the group. All of the Directors are given briefings on trends and developments in corporate governance.

Performance evaluation

The Board has established a formal process for the annual evaluation of the performance of the Directors. This evaluation is based on a performance evaluation questionnaire completed by each Director. The Chairman's performance is reviewed annually by the Non-Executive Directors and led by the Senior Independent Director, Dr Alison Fielding. The evaluation of the Chief Executive Officer is performed by the Chairman and the evaluation of the other Executive Directors is performed by the Chief Executive Officer.

Director dealings in the group's shares

The group has adopted a model code for Directors' dealings in securities of the group which is appropriate for a company quoted on the premium list of the London Stock Exchange. The Directors comply with the rules relating to Directors' dealings and also take all reasonable steps to ensure compliance by the group's "applicable employees" as defined in the rules.

The Directors' interests in the ordinary share capital and in options over such shares of the Company are shown in the Directors' remuneration report on pages 75 to 76.

Investor communications

Nanoco recognises the importance of good and timely communication. Its primary communication channel is the internet. All press releases are published on the Company's website shortly after they are issued via the regulatory news service in the United Kingdom. In addition, a broad range of other relevant information is available on the group's website.

The group also endeavours to ensure that all published information is capable of being readily understood on a standalone basis without the need for a one-to-one meeting. This is an extension of the "fair, balanced, and understandable" requirement inherent in the Annual Report and Accounts.

Investor engagement

Meetings with analysts and institutional shareholders are held following the interim and preliminary results and on an ad hoc basis. These are usually attended by the Chief Executive Officer and Chief Financial Officer.

Engagement during the year	Number
One-to-one meetings	1
Conference calls	10
Group meetings	4
Investor conferences	4

The group takes care to ensure that meetings with shareholders or potential investors are structured around information that is already available to all shareholders on an equal footing.

Feedback from these meetings and regular market updates are prepared by the group's broker and are shared with the Board.

The Chairman and other Non-Executive Directors are available to shareholders to discuss strategy and governance issues at a shareholder's request.

Corporate governance statement continued

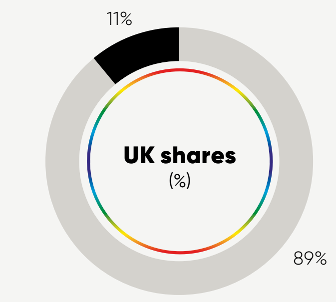
Shareholder analysis

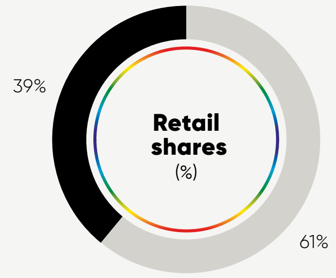
Shareholders at 31 July 2022 are analysed as follows:

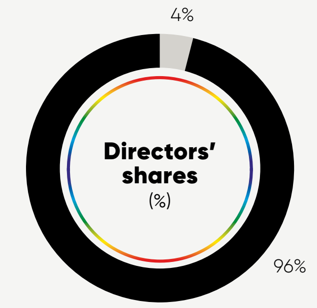
Territory	Shares	%
UK	287,467,836	89.2%
Europe (ex UK)	18,006,045	5.6%
North America	11,481,660	3.6%
Asia	4,474,194	1.4%
Rest of World	1,003,787	0.3%
Total	**322,433,522**	**100%**

Type of holder	Shares	%
Retail investors	195,270,769	60.6%
Hedge funds	54,951,935	17.0%
Pension funds	24,552,310	7.6%
Trading	20,447,657	6.3%
Directors	13,170,472	4.1%
Other	14,040,379	4.4%
Total	**322,433,522**	**100%**

Investment style	Shares	%
Retail	187,262,771	58.1%
Hybrid	82,613,567	25.6%
Trading	20,477,857	6.4%
Directors	13,170,472	4.1%
Value and growth	10,770,432	3.3%
Other	8,138,423	2.5%
Total	**322,433,522**	**100%**







Annual General Meeting ("AGM")

At the AGM, separate resolutions will be proposed for each substantially different issue. The outcome of the voting on AGM resolutions is disclosed by means of an announcement on the London Stock Exchange.

All shareholders are encouraged to attend the AGM and talk to the Directors there. All Directors, including the Chairs of the Audit, Remuneration and Nominations Committees, are available at the meeting to answer questions.

Shareholders not attending the AGM can contact the group via email at info@nanocotechnologies.com.

The table below shows the different resolutions proposed at the 2021 AGM, the proportions of possible votes that were cast and the proportions in favour of and against each resolution (resolutions 1 to 11 were passed as ordinary resolutions and resolutions 12 to 15 were passed as special resolutions).

The Board takes steps to ensure that the views of major shareholders are considered through regular contact. As appropriate, the Board takes due note of their views insofar as these are relevant to the group's overall approach to corporate governance. This is achieved, as noted previously, through feedback from meetings with significant shareholders and feedback from the group's brokers. Significant shareholders were consulted regarding the changes to the remuneration policy which were be proposed at the 2021 AGM and that policy will be effective for three years (until 31 July 2024).

		Votes for			Votes against			Votes withheld	
No.	Resolution	Votes	% of total votes cast	% of total voting rights[2]	Votes	% of total votes cast	% of total voting rights[2]	Votes	% of total voting rights[2]
1	To receive the Annual Report and Accounts	139,897,553	100.0%	45.8%	10,917	0.0%	0.0%	29,113	0.0%
2	To re-appoint the auditors	139,850,364	100.0%	45.7%	42,843	0.0%	0.0%	44,376	0.0%
3	Authority to agree the auditors' fee	139,851,034	100.0%	45.7%	30,679	0.0%	0.0%	55,870	0.0%
4	To re-elect Dr Christopher Richards	135,859,066	97.2%	44.4%	3,977,060	2.8%	1.3%	101,457	0.0%
5	To re-elect Brian Tenner	136,963,927	97.9%	44.8%	2,869,980	2.1%	0.9%	103,676	0.0%
6	To re-elect Dr Nigel Pickett	137,078,681	98.0%	44.8%	2,757,445	2.0%	0.9%	101,457	0.0%
7	To re-elect Dr Alison Fielding	139,810,930	100.0%	45.7%	25,196	0.0%	0.0%	101,457	0.0%
8	To re-elect Christopher Batterham	139,684,199	99.9%	45.7%	137,731	0.1%	0.0%	115,653	0.0%
9	To elect Henry Turcan	139,948,112	97.9%	44.8%	2,870,795	2.1%	0.9%	118,676	0.0%
10	Approval of Directors' remuneration report	138,346,965	99.0%	45.3%	1,420,624	1.0%	0.5%	169,994	0.0%
11	Approval of Directors' remuneration policy	138,307,164	99.0%	45.2%	1,451,931	1.0%	0.5%	178,488	0.0%
12	Approval of amendment to Nanoco 2015 Long Term Incentive Plan	138,187,637	98.9%	45.2%	1,571,616	1.1%	0.5%	178,330	0.0%
13	Approval for political donations	139,296,954	99.6%	45.6%	602,065	0.4%	0.2%	38,564	0.0%
14	Authority to issue and allot new ordinary shares	139,583,412	99.8%	45.7%	325,857	0.2%	0.1%	28,314	0.0%
15[1]	Disapplication of pre-emption rights	139,499,134	99.8%	45.6%	263,354	0.2%	0.1%	175,095	0.0%
16[1]	Disapplication of pre-emption rights for specific investment purposes	139,534,520	99.8%	45.6%	230,222	0.2%	0.1%	173,111	0.0%
17[1]	Authority to purchase own shares	139,852,258	100.0%	45.8%	26,431	0.0%	0.0%	58,894	0.0%
18[1]	Reduced notice of general meetings	139,787,823	99.9%	45.7%	111,580	0.1%	0.0%	38,180	0.0%

1 Proposed as special resolutions.

2 Excluding treasury shares.

Nominations Committee report

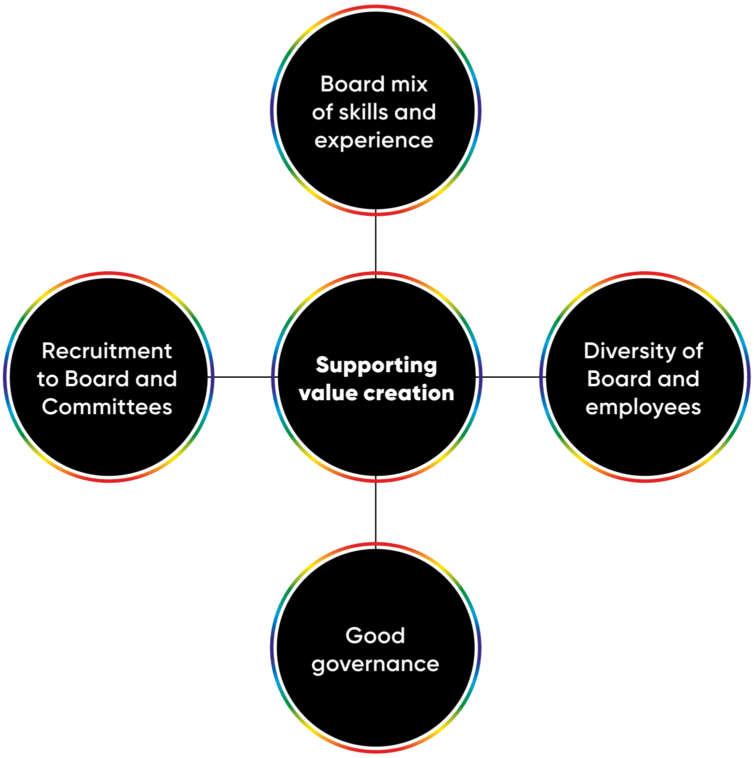
Maintaining the right mix of skills and experience is our key responsibility and is critical to creating long-term shareholder value in a rapidly evolving operating environment

DR CHRISTOPHER RICHARDS
Nominations Committee Chair

The Board believes deeply that strong, responsible and balanced leadership with an appropriate mix of skills for the challenges the group faces is critical to creating long-term shareholder value and business success. The Committee met twice during the year.

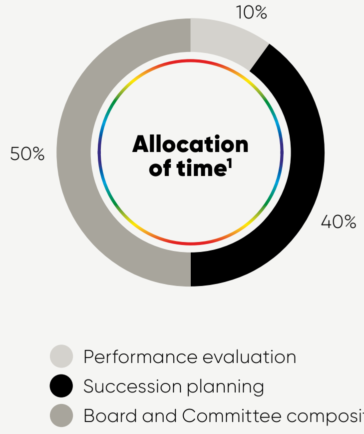
Roles and responsibilities

The Committee is primarily responsible for assisting the Board in ensuring the appropriate composition of the Board and any Committees of the Board. It evaluates the balance of skills, knowledge and experience and the size, structure and composition of the Board and Committees of the Board. This extends to reviewing appointments of additional and replacement Directors and Committee members by making appropriate recommendations to the Board on such matters. In its review, it reviews the parameters set out below:



Members

- → Dr Christopher Richards (Chair)
- → Dr Alison Fielding
- → Chris Batterham



1 Estimated.

Governance

The responsibilities of the Committee include a focus on governance. In order to enhance the group's improvement plans for governance issues. The Committee's terms of reference therefore include:

- reviewing and considering the Company's procedures and controls for ensuring compliance with:
  - the UK Corporate Governance Code;
  - the FCA Disclosure Guidance and Transparency Rules, the Market Abuse Regulation, and any other applicable rules and regulations that apply to the group; and
  - the timely and accurate disclosure of all information that is required to be disclosed in order to satisfy the Company's legal and regulatory obligations under the Corporate Governance Requirements;
- recommending any proposed changes in the management of corporate governance to the Board;
- reporting on such compliance to the Board;
- reviewing potential conflicts of interest involving Directors and determining whether such Director or Directors may vote on any issue as to which there may be a conflict; and
- reviewing all related party transactions, determining whether such transactions are appropriate for the Company to undertake and advising the Board accordingly.

Committee membership

In accordance with the UK Corporate Governance Code the Nominations Committee consists of Non-Executive Directors. It has been chaired by me, Dr Christopher Richards, since my appointment as a Non-Executive Director in November 2015. I have continued in this role after having been made Chairman of the Board in May 2016. The Board considers it appropriate for me to chair the Nominations Committee in order to achieve a balance with the Audit and Remuneration Committees, which are each chaired by other Non-Executive Directors.

The Committee's other members are Dr Alison Fielding and Chris Batterham. All members of the Committee are considered to have experience and competence relevant to the duties and responsibilities of the Committee.

Summary biographies of all members of the Committee are detailed on pages 40 and 41.

Meeting frequency and attendance

The terms of reference of the Committee require at least two meetings per year. When specific issues or changes need to be addressed, such as the appointment of a new Board member, the Committee meets on additional occasions. The Committee met three times during the financial year and was attended as shown in the table below:

Committee member	Meetings/ attended
Dr Christopher Richards (Chair)	**3/3**
Chris Batterham	3/3
Dr Alison Fielding	3/3

As well as the members of the Committee, the Chief Executive Officer may be invited to attend, where there are no perceived conflicts of interest. On matters of remuneration of new appointees, the Chair works closely with the Chair and members of the Remuneration Committee.

Meetings of the Nominations Committee are either scheduled around existing Board meetings or on an ad hoc basis, for example during a recruitment process. The Committee Chair provides the Board with a full briefing on all relevant matters.

The Chairman would not chair this committee should it consider the appointment of a new chair.

Board structure and activities during the year

During previous years, the Board has reduced in size, with a focus on cost saving and governance. However, with the commercial operations advancing, and the ongoing litigation, it was decided that the Board needed further representation from both an Executive Director and a Non-Executive Director. In light of that consideration, two appointments to the Board were recommended during the year.

The Nominations Committee was pleased to recommend unanimously to the Board the appointment of Liam Gray as CFO. Liam has been with the business since 2019 and has experience with both public and private companies.

In addition, the Committee unanimously recommended the appointment of Henry Turcan to the Board as a Non-Executive Director. Henry is as a representative of the major shareholder Lombard Odier Asset Management. Further key activities are set out in more detail below.

The addition of an extra Executive Director and an extra Non-Executive Director has maintained the group's governance goal of having the majority of members of the Board as Non-Executive Directors. In FY23, the Committee will consider whether to appoint a replacement for Henry Turcan who stepped down from the Board after the year end.

Nominations Committee report continued

Meeting frequency and attendance continued

Employee engagement

The Employee Voice Committee ("EVC") was established in 2020 as an employee representative body which would aim to formally meet with a designated member of the Board at least twice a year. Recognising her strong skills and experience in this area, the Board agreed that Dr Alison Fielding should be the designated Non-Executive Director responsible for formal engagement with the employee body (the Employee Voice Committee). The Voice Committee met very effectively during the year, with a focus on meetings and open question and answer sessions during challenging times within the business, such as the site relocation.

Diversity

The group has always aimed to employ the right person for the right job, irrespective of sex, gender, race or disability. When recruiting at Board level, the Nominations Committee requires that any Executive search firms used by the group have signed up to its industry's voluntary code of conduct (prepared in response to the Davies Review of Women on Boards). The group follows a policy of appointing talented people on merit at every level and does not have a specific target for numbers of female Directors or employees. This reflects a market for industry skills that unfortunately still attracts more male candidates than female. The Board will also ensure that its own development in this area is consistent with its strategic objectives and enhances Board effectiveness. Other aspects of diversity in the group are commented on in the Sustainability section on pages 34 to 39.

Review of the Nominations Committee's effectiveness

The Committee has reviewed and considered the effectiveness of its performance during the year. The review included the views of members of the Committee and of regular attendees at the various meetings (including the Executive Directors). I am satisfied that the degree of rigour and challenge applied in performing the Committee's responsibilities is appropriate and effective and continues to improve.

Dr Christopher Richards
Nominations Committee Chair
28 October 2022

Maintaining a robust internal control and risk management framework will support the group's development and growth

CHRIS BATTERHAM
Audit Committee Chair

The Audit Committee plays a central role in the review of the group's financial reporting, internal control and risk management processes. Its aim is to ensure that these processes deliver high quality and timely information.

The Audit Committee monitors internal and external risk factors on behalf of the Board. These are maintained in the group's risk register. The status and assessment of matters in the risk register also inform the drafting of the viability report. As a Committee it seeks not just to respond to external factors but to support and challenge management to anticipate future risks and opportunities.

Committee membership

The composition of the Committee currently comprises me, Chris Batterham (Chair), and Dr Alison Fielding. In accordance with the provisions of the Code, the Committee is made up of independent Non-Executive Directors. The Board considers that I have recent and relevant financial experience to act as Chair of the Committee, by virtue of being a qualified Chartered Accountant with extensive relevant experience as a former CFO and finance director of a number of private and public companies. All members of the Committee are considered to have experience and competence relevant to the material science sector.

Summary biographies of all members of the Committee are detailed on pages 40 and 41.

Meeting frequency and attendance

The terms of reference of the Committee require at least four meetings per year. The Committee met four times during the financial year. As well as the members of the Committee, the meetings are usually attended on an invitational basis by the Chairman, the Chief Executive Officer and the Chief Financial Officer. The external auditors attend each meeting unless the business of the meeting does not need them to be present. The Committee also has meetings with the external auditors without the Executive Directors being present. Attendance of each member is set out below:

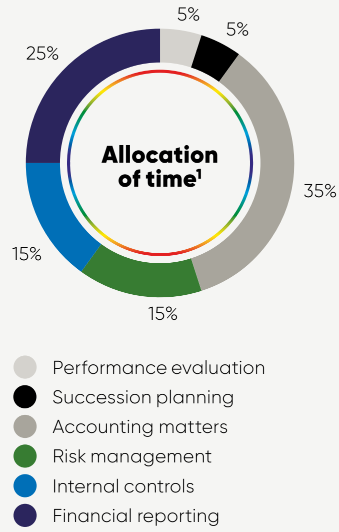
Committee member	Meetings/ attended
Chris Batterham (Chair)	**4/4**
Dr Alison Fielding	4/4

Meetings of the Audit Committee are scheduled to occur in the run-up to key events in the group's reporting calendar. Each meeting precedes a Board meeting to allow the Committee Chair to fully brief the Board on all relevant matters.

The Committee has a pre-determined series of subjects and issues to be reviewed each year. These are then supplemented by additional review of emerging issues or changes in the financial reporting or governance regimes. In this way the Committee ensures that key recurring themes are regularly reviewed while maintaining the flexibility to adapt to changing circumstances.

Members

- Chris Batterham (Chair)
- Dr Alison Fielding



1 Estimated.

In addition to the scheduled Committee meetings, the members of the Committee meet and discuss emerging issues for the business with the CEO and CFO to ensure that the work of the Committee remains appropriately focused on the risks and needs of the business.

Continuous improvements in the quality, relevance and timeliness of information being provided to the Committee and the Board as a whole ensure that similar gains are also made in the quality review, challenge and scrutiny by the Committee.

Audit Committee report continued

Audit Committee responsibilities

The key areas of focus for the Audit Committee are set out below. This includes specific duties of the Committee in each area, how it operates and any changes and improvements made over time. The subjects referred to are a mix of annual recurring areas and also specific issues that have arisen or been reviewed during the last year.

Financial reporting

The primary objective is to ensure that internal and external financial information is robust, relevant, reliable, and a firm basis for decision making by management and external stakeholders alike. These activities are typically carried on throughout the year. They lend themselves to a "continuous improvement" mindset that means we are always looking to do better.

Our responsibilities in this area include:

- → reviewing and monitoring the integrity of the group's annual and interim financial statements;
- → ensuring the appropriateness of accounting policies;
- → reviewing and challenging the critical judgements and estimates used in financial reporting. This includes assessing any potential impact of accounting judgements and estimates on Executive remuneration;
- → ensuring that the financial information being provided internally to the Board and to management is as robust as that reported externally and evolves to meet the changing needs of the business;
- → ensuring the group remains up to date with developments in accounting and reporting requirements; and
- → advising the Board on whether or not the financial statements, when taken as a whole, are fair, balanced and understandable. In simple terms this means that shareholders receive adequate information to assess the group's strategy, business model and risks, and performance.

External audit

The primary objective in this area is to ensure that the group is subject to an appropriately robust, risk focused external audit from a qualified and independent firm of auditors. During the year, the group decided to replace PriceWaterhouseCoopers LLP with Mazars LLP. This decision was taken as the fees quoted by Mazars LLP were more in line with the group's stage of development whilst offering the same quality of service for Nanoco.

Further responsibilities in this area include:

- → advising the Board on the appointment of the external auditors;
- → reviewing and monitoring the performance of the external auditors, which includes the planning and effective execution of the external audit process itself;
- → setting the audit and non-audit fees of the auditors to avoid any potential conflicts of interest with Executive management (non-audit fees are set out in note 6 to the financial statements); and
- → controlling the award of non-audit work to the external auditors to ensure that there is no actual or perceived threat to their independence.

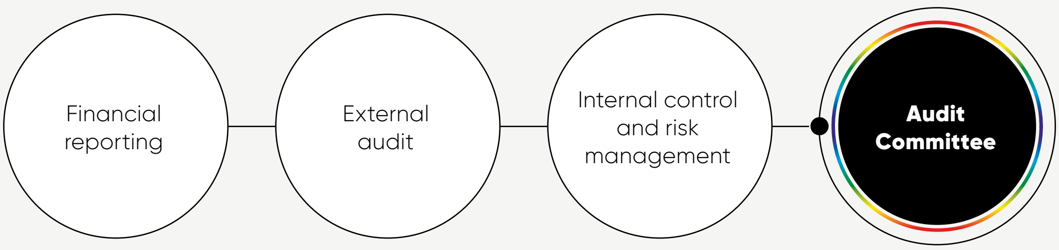
Internal control and risk management

Our internal control and risk management processes are a fundamental part of the overarching framework used to safeguard the assets of the business and to ensure that investments represent an appropriate balance of risk and return. We work to ensure that these are as good as they can be for our business' scale.

Our responsibilities in this area include:

- → continual monitoring of the appropriateness and effectiveness of internal controls (including whether an internal audit function is required);
- → review of lessons learnt and management remediation plans for any shortcomings or improvement plans to internal control processes;
- → review of progress and commitment to addressing control improvement opportunities identified by the external auditors;
- → review and challenge of the models and assumptions underlying the going concern and viability statements;
- → continual focus on cash and cash forecasting;
- → oversight of whistleblowing and fraud detection and prevention mechanisms; and
- → ongoing review of the group's risk management processes and systems, including a substantive review and challenge of management's assessment of key risks.

The Audit Committee also assists the Board in ensuring the overall corporate governance framework is appropriate by giving due consideration to laws and regulations, the provisions of the UK Corporate Governance Code and the requirements of the Listing Rules.



Financial reporting

Our approach to materiality

The financial statements must present a true and fair view of the performance and financial position of the group. They must also present a fair, balanced and understandable view. These are both aimed at ensuring that a user of the accounts can gain an accurate picture of the underlying performance and position of the business. To achieve this, all material matters need to be addressed. Material matters are those that are considered by the Directors to be sufficiently specific and have a large enough real or potential impact that they would be likely to influence the decisions of a reader of the accounts.

The Directors take a range of quantitative and qualitative matters into account in assessing whether or not a matter is deemed to be material. These include the absolute size of a potential adjustment by reference to the overall income statement or the financial position statement and also by reference to an individual component of the financial statements. Qualitative judgements include whether an issue would reverse or materially alter a trend (such as turning a profit into a loss, or growth into a decline).

In this way, the Directors aim to make sure as wide a range of issues as possible are considered without over-burdening the reader of the financial statements with insignificant or immaterial matters.

The Committee discharged its obligations in response to the financial year as follows:

Significant issues considered during the year in respect of the financial statements

The Committee assessed the following matters in respect of financial reporting and in the preparation of the Interim Report and the Annual Report and Accounts:

- continuing appropriateness of the group's accounting policies;
- continuous development in the quality and transparency of the group's external reporting;
- a review of key judgements and estimates made by management (see table below); and
- considering if the financial statements, when taken as a whole, is fair, balanced and understandable.

Significant accounting matters and areas of significant management judgement

The Committee, together with the Board, considered what the significant accounting matters and areas of management judgement in relation to the financial statements were and how these would be addressed.

Each item is considered in further detail below.

Revenue recognition and deferred income (recurring item)

The Committee reviewed the revenue recognition policies and management judgements made in the preparation of the financial statements. Where revenue relates to the sale of products or services to customers, there is little need for judgement or estimates as these types of revenue are recognised either on the transfer of risks and rewards of ownership of goods or on a time and material basis for delivery of services.

The project with the European electronics customer (and subsequent extensions) was the most material source of revenue in the year. This project was ongoing at 31 July 2022. Deliverables were all accounted for on the basis noted above regarding sales of materials or service revenue in line with the requirements of IFRS 15.

Other new sources of revenue earned in the year were derived from the sale of goods or the performance of short-term professional services work. Little judgement was required in assessing these contracts under IFRS 15.

The Committee concluded that the judgements and estimates made by management in respect of revenue recognition and, if relevant, the treatment of deferred income and contract liabilities were reasonable and appropriately disclosed in the financial statements.

Carrying value of intangible assets (recurring item)

The group holds a number of intangible assets, primarily relating to IP. At the end of the year these had a carrying value of £1.6 million (2021: £2.9 million). Given that the group is yet to make a profit, management must exercise judgement in assessing whether or not this value can be recovered from the ongoing operation of the business or through disposal. Actual market disposal values achieved for equivalent IP technology-based businesses are one data point used in this assessment. Management performs an annual assessment of whether or not these assets should be impaired.

The Committee challenged and reviewed the results of the assessment carried out by management. The Committee agreed with management that a £0.9 million impairment of a number of individual assets was required in the current year, with the majority related to technology areas that the group is no longer pursuing or territories where prosecution of IP rights is more difficult.

Any assets which have been impaired are treated as being of disposed during the year. This totalled £3.0 million in the current financial year.

Going concern (recurring item)

The Committee considered the use of the going concern basis for preparing the financial statements. This is currently an annual recurring activity given the ongoing losses incurred by the business in advance of generating full scale production levels of commercial revenues.

Key Item	Judgement or estimate?	Materiality	Uncertainty
Revenue recognition	Judgement	Medium	Low
Carrying value of intangible assets	Estimate	Medium	Medium
Going concern	Judgement and estimate	Medium	Low

Audit Committee report continued

Significant accounting matters and areas of significant management judgement continued

Going concern (recurring item) continued

The review by management takes into account existing available cash resources, run rates on operating costs and cash burn, as well as probability weighted assessments of potential income streams. The group's base case forecasts (which are approved by the Board) are then subject to downside scenario modelling and sensitivity analysis. This includes identifying different management action plans in response to a downside scenario crystallising. The analysis is performed for the twin purposes of preparing the viability statement and also assessing whether or not the going concern basis remains appropriate for the preparation of the financial statements. The going concern analysis is effectively a subset of the two-year period used for viability analysis.

The assessment by management and the Committee includes reference to the material potential risks identified in the group's risk register and any mitigating actions and controls as shown on pages 27 to 29.

The Committee concluded that the group has adequate financial resources to adopt the going concern basis for the preparation of the financial statements. Given the nature of the risks that the group faces while its activities are at a pre-commercial stage, the Committee continues to recommend that the Annual Report and Accounts maintains a relatively high level of disclosure of these matters in the financial statements - as set out in the sections on risk, viability and going concern on pages 32 to 33.

Financial reporting on a fair, balanced and understandable ("FBU") basis

The Committee reviewed the interim and annual financial statements. As part of that review process, the members of the Committee were provided with a draft of the full Annual Report enabling them to ensure that the performance reported therein was consistent with the Committee's knowledge gained from regular reviews of the monthly management accounts.

The Committee also assessed whether the narrative description of the group's activities and performance was consistent with its own understanding obtained through Board and Audit Committee meetings and other interactions it had with management.

The CFO advised the Committee of the findings of independent readers of the draft Annual Report and Accounts. These reviews are carried out by Nanoco senior managers who have not been closely involved in drafting the Annual Report. Their knowledge of the business allows them to form an opinion if the document conveys a fair, balanced and understandable view of business performance in the current year. The Committee members themselves also perform this function by reference to the matters discussed at the regular Board meetings.

Drawing on this knowledge of the group's activities and its own industry knowledge and experience, supplemented by advice received from external advisers during the drafting process, the Committee determined that the Annual Report and Accounts is fair, balanced and understandable and this finding was confirmed by the Board.

External audit

External audit plan

The Committee reviewed the proposed audit plan. The Committee was satisfied that the areas of audit risk highlighted by Mazars were appropriate and included all material matters. The Committee subsequently reviewed the actual audit report by Mazars to ensure that it aligned closely with those risks and the planned audit work.

Safeguarding auditors' independence

The independence of the external auditors is essential to the provision of an objective opinion on the true and fair view presented in the financial statements. The Committee reviews the policies and status of the independence of the external auditors consistent with the ethical standards published by the Auditing Practices Board.

Auditors' independence and objectivity are also safeguarded by limiting the nature and value of non-audit services performed by the external auditors (see later section). The group has a policy of not recruiting senior employees of the external auditors who have worked on the audit in the past two years. The group works with the external auditors to achieve the rotation of the lead engagement partner at least every five years.

As announced during the financial year, the group decided to change auditors from PwC to Mazars following a competitive tender exercise. With the change in auditors, the external audit firm and the current lead engagement partner are in their first year of this position.

The external auditors are also required periodically to assess whether, in their professional opinion, they are independent and those views are shared with the Audit Committee. The Committee has authority to take independent advice as it deems appropriate in order to resolve issues on auditors' independence. No such advice has to date been required.

For the current year, the Committee has concluded that the external auditors remain independent and objective for the purposes of their role.

External audit continued

Non-audit services provided by the external auditors

The Audit Committee will only approve the provision of non-audit services by the external auditors where they are permissible and do not represent a threat (by their nature or scale) to this requirement for independence. The aim is to ensure that no material risk is taken of the auditors both advising on and auditing the same information in the financial statements.

The Audit Committee's approval is required for any fees for non-audit work paid to the auditors in excess of £10,000 in any financial year. However, the group recognises that it can receive particular benefit from certain non-audit services provided by the external auditors due to their technical skills and detailed understanding of the group's business and hence some non-audit work is allowed.

No fees were paid for non-audit services during the year. Separate external firms are engaged for taxation and Directors' remuneration advice.

Internal controls and risk management

The Board has overall responsibility for the group's system of internal controls as one critical part of the overall corporate governance framework. This includes reviewing the effectiveness of these controls and the processes in place for risk management. In accordance with the Internal Control Guidance for Directors issued by the Financial Reporting Council, there is an ongoing process for identifying, evaluating and managing the significant risks faced by the group. This process was introduced during 2015 and is summarised on pages 27 to 29.

The role of the Executive Directors is to implement the Board's policies on risk and control and to provide assurance on compliance with these policies. The processes and procedures in place are designed to manage rather than eliminate risk and operate within the Board's defined risk appetite. They therefore can only provide a reasonable and not absolute assurance against material misstatement or loss.

Executive Directors have a close involvement with all day-to-day operations. They also meet with staff on a regular basis to identify and review business risks, the controls needed to minimise those risks and the effectiveness of controls in place. Business risks are monitored and discussed on a regular basis at meetings of the Leadership and senior management teams. The principal risks faced by the group and other aspects of how they are individually assessed and managed are set out below and on pages 27 to 29.

Internal controls

Key features of the internal control system are summarised below:

(i) annual budgets and rolling forecasts are reviewed and approved by the Board;

(ii) monthly management accounts are reviewed and challenged by comparison to the budget;

(iii) written operational, accounting and employment policies are in place;

(iv) the Board actively identifies and evaluates the risks inherent in the business and ensures that appropriate controls and procedures are in place to manage these risks;

(v) expenditure approval limits and approval processes are in place to cover all major commitments;

"The Board determined that the Annual Report and Accounts are fair, balanced and understandable."

Audit Committee report continued

Internal controls and risk management continued

Internal controls continued

(vi) quality assurance processes are overseen and audited by the internal quality assurance department, with a particular focus on non-financial processes and procedures which drive financial performance; and

(vii) compliance with control procedures is monitored by the Audit Committee through its reviews of internal and external audit findings and its reviews of exceptions.

The Committee considers that the need for an internal audit function is not currently warranted due to the size and complexity of the business but will reconsider this need not less than annually.

Whistleblowing and confidential reporting procedures

The group operates a confidential reporting and whistleblowing procedure. The policy aims to support the stewardship of the group's assets and the integrity of the financial statements as well as protecting staff welfare. The procedure is reviewed annually by the Committee to ensure that it remains fit for purpose. No reports of whistleblowing were received during the year. Staff are regularly reminded of the whistleblowing process as part of ongoing engagement with staff on compliance issues such as anti-bribery training.

Internal accountability

The Board has overall responsibility for the group's system of risk management and internal control. The Audit Committee reviews the effectiveness of the system at least annually on behalf of the Board and, having carried out this review, the Committee continues to believe that the system is effective in safeguarding shareholders' interests and the group's assets. The Board agreed with this conclusion.

Review of the Audit Committee's effectiveness

The Committee has reviewed and considered the effectiveness of its performance during the year. The review included the views of members of the Committee and of regular attendees at the various meetings (including the Executive Directors). We specifically considered the ongoing performance of the new CFO following the transition of the previous CFO into the role of CEO in the prior year. We remain very satisfied with the progress made. I am satisfied that the degree of rigour and challenge applied in performing the Committee's responsibilities is appropriate and effective and continues to improve.

Chris Batterham
Audit Committee Chair
28 October 2022

Designing reward packages to retain and incentivise management progress in achieving our short and medium-term strategic goals

DR ALISON FIELDING
Remuneration Committee Chair

Dear shareholder

As the Chair of Nanoco's Remuneration Committee (the "Committee"), I am pleased to present our Directors' remuneration report for the year ended 31 July 2022. The Committee's report seeks to deliver an appropriate balance between the required regulatory disclosures, commercial sensitivities and the context for our approach and decisions.

This report is presented in three parts:

(1) an overview of the year including prospective matters for the new year ending 31 July 2023;

(2) the Directors' remuneration policy setting out the framework approved by shareholders at the AGM in December 2021; and

(3) the Annual report on remuneration, which sets out the actual Executive remuneration over the year ended 31 July 2022.

Our remuneration policy is designed to attract, incentivise and retain our Executives whilst ensuring a focus on performance related pay that drives our transformation from R&D to commercial production and provides a clear emphasis on the long-term success of the business. The Remuneration Committee seeks to ensure that the Directors' remuneration arrangements continue to be aligned to the strategic direction of the group and to our stakeholder philosophy.

This Directors' remuneration report for the year ended 31 July 2022 complies with the requirements of the Listing Rules of the UK Listing Authority, Schedule 8 of the Large and Medium-sized Companies and Groups (Accounts and Reports) Regulations 2008 and the provisions of the UK Corporate Governance Code (July 2018). The Regulations require the auditors to report to the Company's members on certain parts of the Directors' remuneration report and to state whether, in their opinion, those parts of the report have been properly prepared in accordance with the accounting regulations. Items that are audited throughout this report are clearly marked as audited in the heading of the section.

Board changes

Henry Turcan joined the Board on 19 August 2021 as a Non-Executive Director and representative of the group's largest shareholder, Lombard Odier Asset Management. Henry received no fees for his role with a monitoring fee paid directly to Lombard. Liam Gray was appointed to the Board of Directors on 8 November 2021 in the role of Chief Financial Officer and continues his role as Company Secretary. A summary of his remuneration arrangements from appointment is detailed in the FY22 remuneration decisions section on the following pages.

There were no other changes to the Board during the year.

Relating remuneration to current business performance

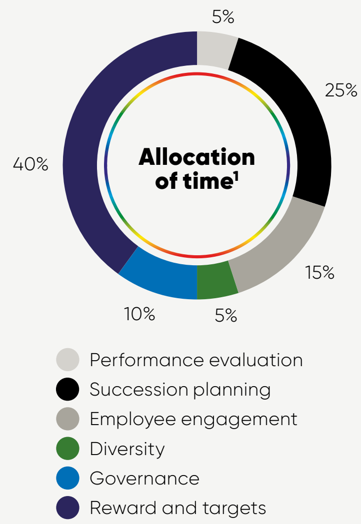
The Committee has always shown leadership in restraint of Executive and Board remuneration at a time when the group was in a weaker financial position and also when a number of staff were facing redundancy. While a number of important and potentially value adding outcomes have been delivered in the current year and the group's financial position is stronger than it was last year, the Remuneration Committee remains conscious of the need to structure reward and incentives around the continuing issues of affordability and conservation of cash. This focus on non-cash incentives helps to maintain a strong alignment with shareholder value.

Members

→ Dr Alison Fielding (Chair)

→ Chris Batterham

→ Dr Christopher Richards



1 Estimated.

Remuneration Committee report continued

Directors' remuneration policy

Our remuneration policy was approved at the 2021 Annual General Meeting, with 99% of all votes cast in favour. This policy was implemented during the year ended 31 July 2022, as described in the Annual report on remuneration and as summarised below.

Element	Implementation in the year ended 31 July 2021
Base salary	The increase in pay for Brian Tenner on taking up the role of CEO was made in two tranches: the first increase to £250,000 occurred in FY22 eleven months after taking up the role, and the second, to £275,000, commences in FY23. There were no other proposed changes to base salaries.
Benefits	Life insurance is the only benefit currently provided.
Retirement benefits	Contributions remained at 6% of salary in line with all staff (a policy limit of 10%).
Annual bonus	At the AGM in November 2021, shareholders approved an increase in the maximum annual bonus to 125% of salary. Up to 100% of any award can be paid in awards of shares or options, deferred for two years, with any balance paid in cash. 80% of the annual bonus is based on financial measures and 20% on stretching personal objectives. Personal bonus elements are only payable if at least one financial target is achieved. The Committee retains discretion to apply different weightings in relevant circumstances, and to override formulaic outturns where circumstances require.
LTIP	At the AGM in November 2021, shareholders approved an increase in the maximum annual LTIP award (in normal circumstances) to 150% of salary (up to 250% in exceptional circumstances). The Committee retains discretion to override formulaic outturns where circumstances require.
Shareholding guideline	All Executive Directors to acquire and retain shares with a value equal to 200% of salary.
Post-employment shareholding requirement	Executive Directors, upon ceasing employment with the Company, are required to retain their shareholdings, up to 200% of salary, for one year post employment. This reduces to 100% of salary in the second year post employment. Shares will be subject to this requirement only if they are acquired from employee share plan awards granted on or after 1 August 2021.
Other changes	Malus and clawback provisions are in place.

The Committee aims to provide total remuneration that retains and incentivises our Executives, whilst reflecting our constrained financial position. The Committee concluded higher variable elements of annual bonus and LTIP were necessary and appropriate to retain and incentivise Executives, as well as strongly aligning their interests with those of shareholders. Shareholders voted to approve an increase in the maximum annual bonus and the maximum annual LTIP award (in normal circumstances) to 125% and 150% of salary respectively. In addition, the annual bonus targets are very stretching and are effectively self-financing since the additional profit exceeds the additional bonus earned. Since the annual bonus can be paid in deferred shares, the Company's cash reserves are protected.

Engaging with shareholders

Before submitting the new remuneration policy to a shareholder vote at the AGM in November 2021, the Committee consulted with major shareholders. I would like to take this opportunity to thank shareholders for their time spent engaging with us and providing commentary on the proposed changes to our Directors' remuneration policy, all of which were subsequently approved at the AGM.

Annual report on remuneration

The Annual report on remuneration section of this report provides details of the amounts earned by Directors in respect of the year ended 31 July 2022 and how the Directors' remuneration policy will be operated for the year commencing 1 August 2022. This section of the report will be subject to an advisory vote at the 2022 AGM.

Remuneration decisions in respect of the year ended 31 July 2022

As referred to in the 2021 Directors' remuneration report, Brian Tenner's salary was increased to £250,000 with effect from 1 August 2021 following his assumption of the CEO role eleven months before in September 2020.

Liam Gray was appointed to the Board as Chief Financial Officer with effect from 8 November 2021. Liam previously served as the UK Finance Director and Company Secretary. He was appointed on a base salary of £120,000 with the same benefits and incentives as the other Executive Directors in line with the remuneration policy.

The 2022 bonus opportunity for the Executive Directors was based on a combination of financial and corporate measures and challenging personal objectives. The Remuneration Committee determined that both of the corporate financial targets' thresholds were achieved. As a result, bonuses were therefore payable in respect of performance against the Executive Directors' personal targets. The Remuneration Committee determined that a number of personal objectives had been achieved in part or in full by the Executive Directors, in addition to the threshold attainment of the financial targets. Further information is set out on page 73.

No long-term incentive awards vested during the year. All the options under the Deferred Bonus Plan that were granted in October 2019 and December 2019 vested during the year. These options had been awarded in respect of the annual bonuses earned in FY19.

Long-term incentive awards were granted in the year under the LTIP and further information is set out on page 74. No other long-term incentive awards were issued.

The Non-Executive Directors continued with their 35% pay deferral in the year ended 31 July 2022. Their full pay was reinstated on 1 July 2022, and the deferred sums were paid in July 2022, following the successful fundraise in June 2022. During the year, the Chairman continued to defer the second increase in his fees that had been agreed in 2020 and this deferral will continue in FY23.

Remuneration in the year commencing 1 August 2022

The Directors' remuneration policy approved at the 2021 AGM will be applied as follows in the year commencing 1 August 2022:

→ The Board agreed to implement the second, deferred tranche, in Brian Tenner's base salary that had been agreed in the prior year. In addition, Brian Tenner (and the other Executive Directors) will receive the same 6% cost of living increase being awarded to all other staff (excluding Non-Executive Directors). In combination, this raises his salary to £291,500 effective from 1 August 2022.

→ The Board also approved an increase in salary for the CFO, Liam Gray, raising his salary to £148,400 effective from 1 August 2022. This reflects strong development progress made in the year by Liam and is made up of an increase of £20,000 in base salary, plus a 6% cost of living increase as detailed above.

→ The CTO, Nigel Pickett, has received a 6% cost of living increase as detailed above, raising his salary to £207,442 effective from 1 August 2022.

→ For the year commencing 1 August 2022, employer pension contributions for all staff, including the Executive Directors, above the amount of any salary sacrifice (and the associated employer National Insurance contribution savings) will be increased by 1.5% of salary to the group's medium-term target of 7.5% of salary.

→ The annual bonus opportunity for Executive Directors will be 125% of salary in line with the approved policy, subject to the achievement of stretching performance conditions. The details of the proposed targets, to the extent they are not disclosed on page 79, will be disclosed in next year's Directors' remuneration report when they are no longer commercially sensitive.

→ LTIP awards for the year commencing 1 August 2022 will be set in line with the approved policy which specifies an award level of 150% (and up to 250% in exceptional circumstances). LTIP awards are ordinarily made in the period following the announcement of the group's annual results though the policy also allows for the Board to vary this timing at its discretion. The intended awards to be made to the Executive Directors in October 2022 are set out in the relevant sections of this report. The targets and weightings for any award in FY23 will be announced if and when any such awards are made.

→ Non-Executive Director fees will remain at their previous levels and will now be paid in full in cash. The second increase in the Chairman's underlying fees that was agreed in 2019 will remain on hold.

As a Committee, we believe that ongoing dialogue with our major shareholders is of key importance. Should you have any queries or feedback in relation to the Directors' remuneration report, please contact me through the Company Secretary.

Dr Alison Fielding
Remuneration Committee Chair
28 October 2022

Directors' remuneration report

Directors' remuneration policy

This part of the report sets out the Company's forward-looking Directors' remuneration policy that was subject to a binding vote at the AGM on 30 November 2021 and is scheduled to continue in operation for three years. The Directors' remuneration policy is not audited.

Element and purpose	Operation	Maximum opportunity	Performance measures
Base salary Core element of fixed remuneration that provides the basis to recruit and retain talent necessary to deliver the business strategy.	Normally reviewed annually and applied from 1 August (can be varied). Consideration is given to the following: → the role, responsibility and experience of the individual; → corporate and individual performance; → market comparators by size and complexity; and → other Nanoco salary increases.	No maximum. Annual increase normally in line with the wider workforce. Potential further increases: → on promotion or changes in scope or responsibility; → an individual's performance in a role; → where there has been a change in market practice; or → if there is a change in the size and/or complexity of the business.	N/A
Benefits Provide a market-competitive benefits package and promote the wellbeing of employees.	The Company provides life assurance of eight times salary, for all Executives. Directors are reimbursed for out-of-pocket expenses incurred wholly and necessarily on Company business. Benefits are reviewed periodically, taking individual circumstances into consideration. Benefits provided may include, for example, medical insurance, relocation expenses, expatriate allowances and travel expenses.	No absolute maximum. The value of benefits is set at a level which the Committee considers to be appropriately positioned taking into account relevant market factors based on the nature and location of the role, the level of benefits provided to other employees in the group and individual circumstances.	N/A
Retirement benefits Provide market-competitive post-employment benefits to recruit and retain Directors of the calibre required for the business.	The Company currently operates a salary sacrifice pension arrangement under which Executives may elect to sacrifice salary and the Company pays an amount equal to the amount of the salary sacrifice, together with the employer National Insurance saved, into a private pension scheme. Executive Directors are also eligible to participate in the Company's defined contribution scheme (or other appropriate pension plan). In circumstances where the lifetime allowance is protected, Executive Directors are permitted to take an equal cash supplement (not counted towards bonus or LTIP opportunity).	For the year commencing 1 August 2022, employer pension contributions above the amount of any salary sacrifice and employer NIC saved will be set at 7.5% (2021: 6.0%) of salary in line with all employees. An overall contribution limit of up to 10% of base salary may be made in future years (in addition to the amount of any salary sacrifice and employer NIC saved) to take account of circumstances including, but not limited to, a change in the scope of the role, an increase in responsibility and/or a change in the size and/or complexity of the business.	N/A

Directors' remuneration policy continued

Element and purpose	Operation	Maximum opportunity	Performance measures
Annual bonus Rewards and incentivises the achievement of annual objectives which are aligned with key financial and strategic goals that support the enhancement of shareholder value.	Performance targets are set annually and pay-out levels are determined after the year end following the Committee's assessment of actual performance against set targets. Up to 100% of any bonus earned can be paid in deferred shares or options under the Deferred Bonus Plan ("DBP") that will vest after two years. Deferred share option awards may incorporate the right to receive (in cash or shares) the value of the dividends that would have been paid on vested shares; this may assume the reinvestment of dividends into shares on such terms as the Committee determines. Personal bonus element only payable if at least one financial target is achieved.	Maximum annual bonus opportunity is 125% of salary. The percentage of maximum bonus payable for the different levels of performance would be no greater than: Below threshold 0% Threshold 25% On-target 60% Maximum 100% On-target performance pays out at 60% (and not 50%) as the Committee includes an element of stretch when setting targets.	Stretching performance targets are set each year, reflecting the group strategy. Ordinarily, at least 80% will be subject to achievement of financial and/or corporate measures and the balance will be based on challenging personal objectives. The Committee retains discretion to apply different weightings in relevant circumstances, and to override formulaic outturns where circumstances require.
Long Term Incentive Plan ("LTIP") To reflect stakeholder philosophy, provide a longer-term retention mechanism and provide alignment with shareholders.	Under the LTIP, awards of conditional shares, restricted stock or nil-cost options (or similar cash equivalent) can be made with vesting dependent on the achievement of performance conditions, normally over a three-year performance period. There will be no retesting of performance after the end of the performance period. Vested awards are normally subject to a two-year holding period. LTIP awards may incorporate the right to receive (in cash or shares) the value of the dividends that would have been paid on the shares that vest; this may assume the reinvestment of dividends into shares on such terms as the Committee determines.	The maximum value of shares over which an individual can be granted an award in respect of a financial year is normally 150% of base salary, although this limit may be increased to 250% of base salary in exceptional circumstances. The percentage of maximum awards for the different levels of performance would be no greater than: Below threshold 0% Threshold 25% On-target 60% Maximum 100% On-target performance pays out at 60% (and not 50%) as the Committee includes an element of stretch when setting targets.	Vesting of LTIP awards is subject to meeting performance targets set by the Committee. Performance targets are reviewed regularly to ensure relevance and will be based on financial measures which link to the creation of shareholder value (such as share price, revenue and EPS) and/or the achievement of strategic milestones. The relevant metrics and the respective weightings may vary each year based on Company strategic priorities. The Committee retains discretion to override formulaic outturns where circumstances require.
Shareholding requirement To align Directors to shareholder interests.	In service requirement A requirement to build up and hold a shareholding of at least 200% of base salary. 50% of vested shares under the DBP or LTIP (post-tax) are to be retained until the shareholding requirement has been met.	N/A	N/A
Post-employment shareholding requirement To further align Directors to shareholder interests.	Executive Directors' upon ceasing employment with the Company, are required to retain their shareholdings, up to 200% of salary, for one year post employment. This reduces to 100% of salary in the second year post employment. Shares will be subject to this requirement only if they are acquired from employee share plan awards granted on or after 1 August 2021.	N/A	N/A

Directors' remuneration report continued

Directors' remuneration policy continued

Notes to the policy table

Application of clawback and malus to variable remuneration

Under the Deferred Bonus Plan ("DBP"), during the two-year deferral period, the Committee has the right to reduce any deferred bonus awards which have not yet been released in the event of a material misstatement of the group's financial results, material misconduct on the part of the participant, a material corporate failure as determined by the Board, a material failure of risk management by the group, or in the event of serious reputational damage (i.e. a malus provision). For up to two years following the payment of a cash bonus award, the Committee may also require the repayment of some or all of the award in these circumstances (i.e. a clawback provision). The same provisions apply to awards under the 2015 LTIP Plan at any time prior to the end of the holding period for LTIP awards.

Explanation of performance measures chosen

Selected performance measures for the annual bonus and LTIP awards reflect the group's strategy. Stretching performance targets are set each year by the Committee taking into account a number of different factors.

Annual bonus

Ordinarily, at least 80% of the potential maximum annual bonus will be subject to achievement of a combination of financial and corporate measures, with the remainder based on challenging personal objectives. The Committee will disclose the metrics and performance against these on a retrospective basis to the extent that these are not commercially sensitive. The personal bonus element is only payable if at least one financial target is achieved.

LTIP

The Committee has now opted for any potential LTIP award in financial year 2023 to be based on a combination of revenue targets and share price growth. Both metrics are closely aligned to long-term shareholder interests in that revenue growth will lead to a valuable self-financing organic business and share price growth is a direct measure of increases in shareholder value. It is the Committee's view that these metrics are the most appropriate performance measure at present for determining LTIP vesting for the awards for the reason given above. At this time as a 'pre-profit' business, the Committee considers that a profit based metric would not be appropriate as this could be subject to the risk of potential undeserved reward or penalty, particularly given the small absolute values involved. The Committee intends to review each year the performance metrics for future awards taking into account the business priorities and strategy at that time.

The Committee also retains the discretion to adjust or set different performance measures or targets where it considers it appropriate to do so (for example, to reflect a change in strategy, a material outcome or development in the Samsung litigation, a material acquisition and/or a divestment of a group business or a change in prevailing market conditions) and to assess performance on a fair and consistent basis from year to year.

Operation of the LTIP and DBP

The LTIP and DBP are operated by the Committee in accordance with their respective rules. These include the ability to adjust the number of shares subject to awards in the event of a variation of share capital, demerger, delisting, special dividend, rights issue or other event which may, in the opinion of the Company, affect the current or future value of shares. The "market value" of a share for the purposes of determining the number of shares subject to the LTIP or DBP award will be the average share price over the three dealing days following the announcement of results preceding the grant date. The Committee can determine that an alternative basis should apply but this would still be by reference to market prices such as the average price over the three-day period leading up to an award at a different date. All members of staff are eligible to participate in both schemes.

Early vesting of awards

As described on page 70, awards under the DBP and LTIP may vest earlier than anticipated in "good leaver" circumstances.

On a change of control of the Company or other relevant corporate event (such as a demerger, delisting, special dividend or other event which may affect the value of an award), the extent to which unvested awards will vest will be determined in accordance with the rules of the relevant plan.

Awards under the DBP will vest in full in the event of a takeover, merger or other relevant corporate event.

Awards under the LTIP may vest early on a takeover, merger or other relevant corporate event. The Committee will determine the level of vesting taking into account the extent to which the performance conditions are satisfied and the perceived value created as a result of such an event. Such vesting would ordinarily be on a time pro-rata basis, although the Committee has discretion not to apply time pro-rating.

How the Executive Directors' remuneration policy relates to the group

The remuneration policy summarised previously provides an overview of the structure that operates for the Executive Directors. The same broad structure also operates for the members of the senior management team, although with lower levels of participation in the annual bonus, the DBP and/or the LTIP.

Directors' remuneration policy continued

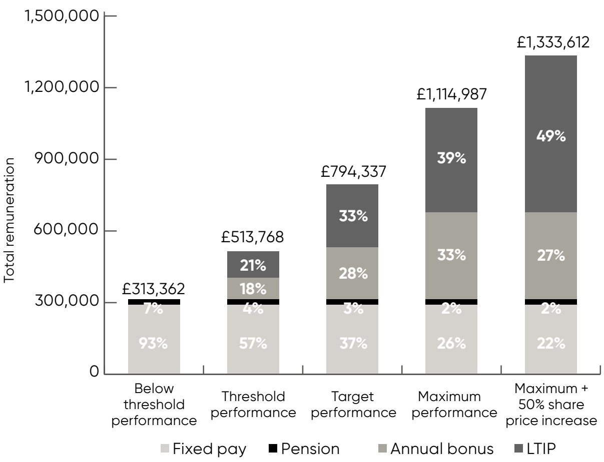
Remuneration outcomes in different performance scenarios

The charts below set out an illustration of the remuneration policy for FY23. The charts provide an illustration of the proportion of total remuneration made up of each component of the remuneration policy and the potential value of each component.

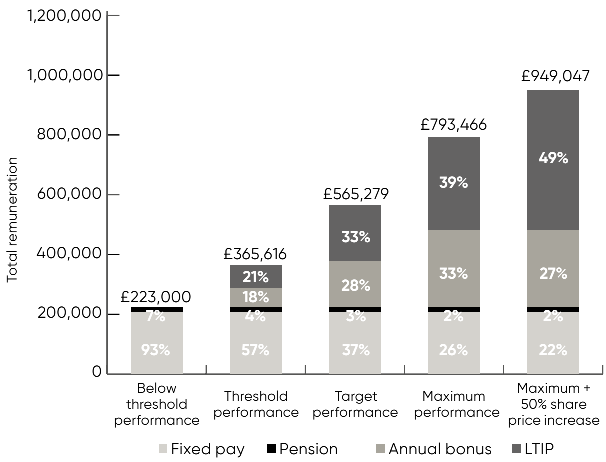
Five scenarios have been illustrated for each Executive Director:

Below threshold performance	Fixed remuneration No annual bonus pay-out No vesting under the LTIP
Threshold performance	Fixed remuneration 25% annual bonus pay-out (31.25% of salary) 25% vesting under the LTIP (37.5% of salary)
Target performance	Fixed remuneration 60% annual bonus pay-out (75% of salary) 60% vesting under the LTIP (90% of salary)
Maximum performance	Fixed remuneration 100% annual bonus pay-out (125% of salary) 100% vesting under the LTIP (150% of salary)
Maximum + 50% share price increase	Fixed remuneration 100% annual bonus pay-out (125% of salary) 100% vesting under the LTIP (150% of salary) plus an assumed 50% increase in share price from grant date

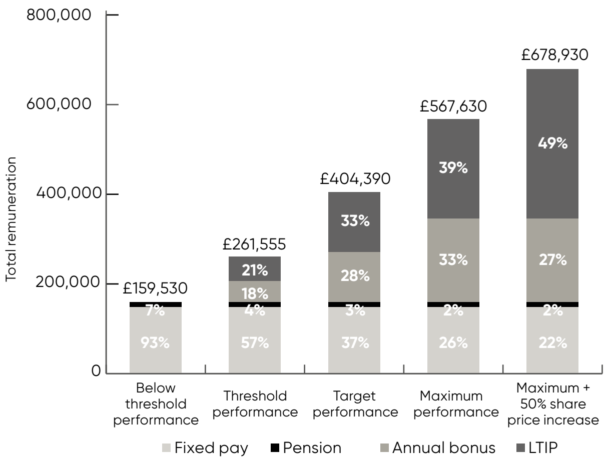
Brian Tenner



Dr Nigel Pickett



Liam Gray



Directors' remuneration report continued

Directors' remuneration policy continued

Remuneration outcomes in different performance scenarios continued

Fixed pay currently comprises the following elements from 1 August 2022:

	Current base salary	Benefits[1]	Pension[2]	Total
Chief Executive Officer – Brian Tenner	£291,500	–	£21,862	£313,362
Chief Technical Officer – Dr Nigel Pickett	£207,442	–	£15,558	£223,000
Chief Financial Officer – Liam Gray	£148,400	–	£11,130	£159,530

1 No benefits are currently provided to the Executive Directors other than under the group life assurance scheme, the value of which in the case of the Executive Directors cannot be identified.

2 Based on 7.5% employer pension contribution/cash supplement in lieu of pension which applies for the year ended 31 July 2023 (2022: 6.0%).

With the exception of the final scenario (which assumes a 50% increase in share price from grant date of LTIPs), the values illustrated assume a constant share price from the time of grant of LTIPs and do not take into account share price fluctuation or dividend equivalents that may be received under the share plans. The ultimate amounts received by the Directors may be higher or lower than the amounts illustrated above.

Remuneration policy for Non-Executive Directors

Purpose and link to strategy	Operation	Other items
To enable the Company to attract and retain Non-Executive Directors of the required calibre by offering market-competitive rates.	The Chairman's fee is determined by the Committee and the fees of the other Non-Executive Directors are determined by the Board. Fees take into account several factors, including the size and complexity of the business, fees paid at companies of a similar size and complexity, and the expected time commitment and contribution for the role. Overall fees paid to Non-Executive Directors will remain within the limits set by the Company's Articles of Association.	Non-Executive Directors are provided with Directors' and officers' insurance and indemnity protection and are eligible to be reimbursed for any reasonable hotel and travelling expenses and other reasonable expenses incurred in the performance of their duties. The Non-Executive Directors do not participate in the Company's annual bonus, share plans or pension schemes.

Remuneration policy on recruitment

When hiring a new Executive Director, the Committee will seek to align the remuneration package with the above policy. When determining appropriate remuneration arrangements, the Committee may include other elements of pay which it considers are appropriate and necessary in the circumstances. However, this discretion is capped and is subject to the limits referred to below:

- base salary will be set at a level appropriate to the role and the experience of the appointee. We may agree future increases up to a market rate, in line with increased experience and/or responsibilities, subject to good performance;
- benefits and pension contributions will only be provided in line with the above policy;
- the Committee will not offer non-performance related incentive payments (for example a "guaranteed sign-on bonus");
- other elements may be included in the following circumstances:
  - an interim appointment being made to fill an Executive Director role on a short-term basis;
  - if exceptional circumstances require the Chairman or a Non-Executive Director to take on a short-term Executive function;
  - if an Executive Director is recruited at a time in the year when it would be inappropriate to provide a bonus or long-term incentive award for that year as there would not be sufficient time to assess performance. Subject to the limit on variable remuneration set out below, the quantum in respect of the months employed during the year may be transferred to the subsequent year so that reward is provided on a fair and appropriate basis; and
  - if the Director will be required to relocate in order to take up the position, it is the Company's policy to allow reasonable relocation, travel and subsistence payments. Any such payments will be at the discretion of the Committee;

Directors’ remuneration policy continued

Remuneration policy on recruitment continued

- the Committee may also alter the performance measures, performance period and vesting period of the annual bonus or LTIP, if the Committee determines that the circumstances of the recruitment merit such alteration. The rationale for any such alterations will be clearly explained in the next Directors’ remuneration report; and
- the maximum level of variable remuneration which may be granted (excluding “buyout” awards as referred to below) is 375% of salary, in line with the policy set out on pages 64 and 65.

The Committee may make payments or awards in respect of hiring an employee to “buy out” remuneration arrangements forfeited on leaving a previous employer. In doing so, the Committee will take account of relevant factors, including any performance conditions attached to the forfeited arrangements and the time over which they would have vested or been paid. The Committee will generally seek to structure buyout awards or payments on a comparable basis to the remuneration arrangements forfeited. Any such payments or awards are excluded from the maximum level of variable remuneration referred to previously. “Buyout” awards will ordinarily be granted on the basis that they are subject to forfeiture or “clawback” in the event of departure within twelve months of joining the Company, although the Committee will retain discretion not to apply forfeiture or clawback in appropriate circumstances.

Any share awards referred to in this section will be granted as far as possible under the Company’s existing share plans. If necessary, and subject to the limits referred to above, recruitment awards may be granted outside of these plans.

Where a position is filled internally, any ongoing remuneration obligations or outstanding variable pay elements shall be allowed to continue in accordance with their terms.

Fees payable to a newly appointed Chairman or Non-Executive Director will be in line with the policy in place at the time of appointment.

External appointments

The Company recognises that Executive Directors may be invited to become non-executive directors of other companies and that this can help broaden the skills and experience of a Director. Subject to the approval of the Board, Executive Directors are normally permitted to accept external appointments and may retain fees for such appointments where no significant actual or potential conflict of interest arises and provided that the Director is able to maintain his time commitment to the Company.

Payment for loss of office

The Company’s policy is that Executive Directors’ service contracts should be capable of termination on not more than six months’ notice. This policy was implemented during FY21 with notice periods being shortened by agreement with the continuing Executives. The duration of Directors’ service contracts is disclosed on page 79. The principles on which the determination of payments for loss of office will be approached are set out below:

Element	Policy
Payment in lieu of notice	The Company has discretion to make a payment in lieu of notice which would include base salary and benefits for the unexpired period of notice, up to a maximum of six months’ notice.
Annual bonus	At the Committee’s discretion, on an individual basis, any annual bonus award will be dependent on a number of factors, such as the circumstances of departure and their contribution to the business during the period. Any bonus will normally be pro-rated for time and will be paid at the usual time (although the Committee retains discretion to pay the annual bonus award earlier in appropriate circumstances). Any such bonus can, at the discretion of the Committee, be paid wholly in cash.
DBP	Determined in accordance with the rules of the DBP. Unvested awards will normally lapse on cessation of employment. However, at the Committee’s discretion, if a participant is deemed to be a “good leaver” (such as leaving due to death, ill health, injury, disability, redundancy or the sale of his employer), the Committee shall determine whether any unvested award will vest at cessation or at the normal vesting date. In either case, the extent of vesting will be determined by the Committee, taking into account, unless the Committee determines otherwise, the period of time elapsed from the date of grant to the date of cessation relative to the deferral period. Awards may then be exercised during such period as the Committee determines. Awards (in the form of nil-cost options) which have vested but remain unexercised at the date of cessation may be exercised if a participant is a good leaver at the discretion of the Committee. Awards may then be exercised for such period as the Committee determines.

Directors' remuneration report continued

Directors' remuneration policy continued

Payment for loss of office continued

Element	Policy
LTIP	Determined in accordance with the rules of the shareholder approved LTIP. Unvested awards will normally lapse on cessation of employment. However, if a participant is deemed to be a good leaver, the Committee shall determine whether the award is released on the normal release date or the date of cessation (or on some other date). The extent of vesting will be determined by the Committee taking into account the extent to which the performance condition is satisfied and, unless the Committee determines otherwise, the period of time elapsed from the date of grant to the date of cessation relative to the performance period. Awards may then be exercised during such period as the Committee determines. If a participant leaves for any reason (other than summary dismissal) after an award has vested but before it has been released (i.e. during the holding period), his award will ordinarily continue to the normal release date when it will be released to the extent it vested. The Committee retains discretion to release awards when the participant leaves. If the participant is summarily dismissed, their award will lapse. Awards (in the form of nil-cost options) which have vested and been released but remain unexercised at the date of cessation may be exercised if a participant is deemed to be a good leaver. Awards may then be exercised for such period as the Committee determines.
Mitigation	The Committee's practice is that if an Executive Director's employment is terminated any compensation payment will be calculated in accordance with normal legal principles including the application of mitigation to the extent appropriate to the circumstances of the termination.
Other payments	In appropriate circumstances, payments may also be made in respect of accrued holiday, outplacement and legal fees.

Where a buyout award has been made, the leaver provisions would be determined at the time of the award.

The Committee reserves the right to make additional exit payments where such payments are made in good faith in discharge of an existing legal obligation (or by way of damages for breach of such an obligation) or by way of settlement or compromise of any claim arising in connection with the termination of a Director's office or employment.

Where the Committee retains discretion it will be used to provide flexibility in certain situations, taking into account the particular circumstances of the Director's departure and performance.

There is no entitlement to any compensation in the event of Non-Executive Directors' fixed-term agreements not being renewed or the agreement terminating earlier.

Consideration of employees' pay

The Committee generally considers pay and employment conditions elsewhere in the Company when considering the Directors' remuneration. When considering base salary increases, the Committee reviews overall levels of base pay increases offered to other employees. Employees are not actively consulted on Directors' remuneration. Employee share ownership is fundamental to the Company's culture and is reflected in the universal participation in at least one of our share incentive plans.

Existing contractual arrangements

The Committee retains discretion to make any remuneration payment and/or payment for loss of office outside the policy in this report:

→ where the terms of the payment were agreed before the policy came into effect, provided that they are in line with the Directors' remuneration policy approved at the 2021 AGM;

→ where the terms of the payment were agreed at a time when the relevant individual was not a Director of the Company and, in the opinion of the Committee, the payment was not in consideration of the individual becoming a Director of the Company; and

→ to satisfy contractual commitments under legacy remuneration arrangements.

For these purposes, "payments" includes the satisfaction of awards of variable remuneration and, in relation to an award over shares, the terms of the payment are agreed at the time the award is granted.

Consultation with shareholders

The Committee considers shareholder feedback received on remuneration matters, as well as any additional comments received during any other meetings with shareholders. The Committee consulted with major shareholders in respect of the changes to the remuneration policy that was approved at the 2021 AGM.

Annual report on remuneration

This report sets out details of the amounts earned during FY22 and provides details as to how the Committee intends to implement the policy during FY23. This part of the report will be subject to an advisory shareholder vote at the 2022 AGM. This report contains unaudited information except where stated that it is audited.

Remuneration Committee

The Committee comprises Dr Alison Fielding, who is Chair of the Committee, Chris Batterham and Dr Christopher Richards, each of whom is considered to be independent. The Committee may invite anyone it deems appropriate to attend and advise at meetings, including the Chief Executive Officer, Chief Financial Officer and the Chief Technology Officer, although no Director is present when their own remuneration is being discussed. The Committee is responsible for establishing a formal and transparent procedure for developing policy on Executive remuneration and for setting the remuneration of the Directors and certain senior management, as well as reviewing the performance of the Executive Directors of the Company. The terms of reference of the Remuneration Committee can be found in the Investors section of the group's website.

The Committee met six times during the year; its meetings are minuted and its recommendations are presented to the Board.

Other appointments

None of the Executive Directors had any other external appointments during the year ended 31 July 2022.

Advisers to the Committee

The Chief Executive Officer is consulted on the remuneration of those who report directly to him and also of other senior Executives. No Executive Director or employee is present or takes part in discussions in respect of matters relating directly to their own remuneration. During the year, the Committee was assisted in its work by the following external consultants:

Adviser	Details of appointment	Services provided by the adviser	Fees paid for remuneration advice	Other services in FY21
Deloitte LLP ("Deloitte")	Appointed by the Remuneration Committee in June 2015.	Various advice on Executive remuneration.	The fees for advice provided to the Committee during the financial year were £nil (2021: £7,125). Charged on a time/cost basis or fixed fee depending on project.	Advice to management in relation to the Directors' remuneration report.

Deloitte is a member of the Remuneration Consultants Group and, as such, voluntarily operates under its Code of Conduct in relation to Executive remuneration consulting in the UK. The Remuneration Committee took into account the Code of Conduct when reviewing the appointment of Deloitte. The Committee is satisfied that the remuneration advice provided by Deloitte is objective and independent.

Single total figure of remuneration for 2022 – Executive Directors (audited information)

The remuneration of the Directors who served on the Board of Nanoco Group plc during the year to 31 July 2022 is as follows (footnotes for both tables are below the second table):

	Base salary and fees[1] £'000	Benefits in kind[2] £'000	Annual bonus in cash £'000	Annual bonus in shares £'000	Long-term incentives £'000	Pension[3] £'000	**Total 2022 £'000**	Total fixed remuneration £'000	Total variable remuneration £'000
Executive Directors									
Brian Tenner	250	–	–	238	–	15	**503**	265	238
Dr Nigel Pickett	196	–	–	184	–	12	**392**	208	184
Liam Gray[4]	87	–	–	85	–	5	**177**	92	85
Total Executive Directors	533	–	–	507	–	32	**1,072**	565	507
Non-Executive Directors									
Dr Christopher Richards	100	–	–	–	–	–	**100**	100	–
Dr Alison Fielding	46	–	–	–	–	–	**46**	46	–
Chris Batterham	46	–	–	–	–	–	**46**	46	–
Henry Turcan[5]	40	–	–	–	–	–	**40**	40	–
Total Non-Executive Directors	232	–	–	–	–	–	**232**	232	–
Total	765	–	–	507	–	32	**1,304**	797	507

Directors' remuneration report continued

Annual report on remuneration continued

Single total figure of remuneration for 2022 – Executive Directors (audited information) continued

The remuneration of the Directors who served on the Board of Nanoco Group plc during the year to 31 July 2021 was as follows:

	Base salary and fees[1] £'000	Benefits in kind[2] £'000	Annual bonus in cash £'000	Annual bonus in shares £'000	Long-term incentives £'000	Pension[3] £'000	Total 2021 £'000	Total fixed remuneration £'000	Total variable remuneration £'000
Executive Directors									
Brian Tenner	192	–	–	95	–	11	298	203	95
Dr Nigel Pickett	169	–	–	84	–	10	263	179	84
Total Executive Directors	361	–	–	179	–	21	561	382	179
Former Executive Directors									
Dr Michael Edelman[6]	180	–	–	–	–	–	180	180	–
Non-Executive Directors									
Dr Christopher Richards[7]	77	–	–	–	–	–	77	77	–
Dr Alison Fielding[7]	35	–	–	–	–	–	35	35	–
Chris Batterham[7]	35	–	–	–	–	–	35	35	–
Total Non-Executive Directors	147	–	–	–	–	–	147	147	–
Total	688	–	–	179	–	21	888	709	179

1 If less than a year was served, salary or fees are from the date of appointment or to the date of retirement. The Executive Directors' salaries shown include the impact of the temporary 20% salary reduction in between 1 April 2020 and 31 March 2021 and are shown before any salary sacrifice pension contributions. The Non-Executive Directors' salaries shown include the impact of the 35% salary reduction that took effect between 1 April 2020 and the 31 March 2021, the 35% salary deferral that took effect from 1 April 2021 and the repayment of the 35% deferral in July 2022. The FY21 single figure table has been restated to reflect this repayment, as previously the single figure table showed the reduced values.

2 Benefits in kind are shown at the taxable value of benefits received in the year. The life cover provided to Executive Directors is contained within a policy covering all employees and it is not possible to identify the proportion of the premium in respect of either Directors individually or as a whole.

3 The pension figure represents the cash value of Company pension contributions and/or cash in lieu of pension contributions. This does not include the amount of the salary sacrifice paid as a pension but does include the employer National Insurance saved that is paid into a private pension scheme.

4 Liam Gray was appointed to the Board on 8 November 2021 on an annualised salary of £120,000. The figure above discloses his salary between the date of his appointment and 31 July 2022.

5 Henry Turcan is a representative of the shareholder Lombard Odier Asset Management, and Nanoco pays £40,000 annually for these services direct to Lombard Odier Asset Management.

6 Dr Michael Edelman stepped down from the Board and his role as CEO on 1 September 2020 with his salary and benefits as CEO payable until the end of his notice period on 31 March 2021. The above discloses his salary through to 31 March 2021. His remuneration is paid in US Dollars but reported in Sterling for the purpose of this table. The exchange rate used for this purpose varied throughout the year. The rates used were 1.3125 in 2021.

7 In the financial year ended 31 July 2021, the 3 Non-Executive Directors pay was stated net of deferral. That deferral was paid in July 2022, and so the prior year numbers have been restated.

Annual report on remuneration continued

Individual elements of remuneration for the year ended 31 July 2022

Base salary

Brian Tenner received an increase from £221,450 to £250,000 on 1 August 2021. This was in recognition of his change in position from COO and CFO to CEO in September 2020 with the mutually agreed eleven month delay reflecting the Company's financial condition at that time. All other base salaries were frozen in line with other staff in the year ended 31 July 2022.

Annual bonus

For the year ended 31 July 2022, the maximum bonus for Dr Nigel Pickett, Brian Tenner and Liam Gray was 125% of salary with Liam Gray's bonus potential being pro-rated to reflect the date of his appointment. The annual bonuses comprise two elements: financial corporate objectives (100% of salary) and personal objectives (25% of salary). Bonuses for personal objectives are only payable if financial corporate objectives are achieved.

Threshold financial targets were achieved during the year and hence bonuses were also payable in respect of personal targets. Performance against financial and personal targets is shown in the table below with the financial and corporate measures and their weighting as a percentage of salary for the year ended 31 July 2022:

Measure and weighting as a percentage of salary	Threshold performance level	Maximum performance level	Performance achieved	Bonus earned as a percentage of salary
Revenue and other operating income (75%)	£2.2m	£3.5m	£2.8m	52.6%
Adjusted LBITDA (25%)	Loss of £2.7m	Loss of £2.1m	Loss of £2.1m	25.0%

The personal objectives and amounts payable in respect of Brian Tenner, Dr Nigel Pickett and Liam Gray are set out in the table below.

Specific bonus targets have not been disclosed by the Committee where they are considered to be commercially sensitive. The current stage of the group's development means certain retrospective information could still give competitors insight into the strategic plans of the business, which is not in the interest of shareholders.

It is the Board's intention that awards of deferred share options in respect of bonuses will be settled in shares and not cash, to conserve the cash resources of the business.

Director	Measure	Weighting (% of maximum bonus opportunity)	Achievement (% of salary)
Brian Tenner	**Financial and corporate measures**	80	62.1%
	Personal objectives	20	14%
	Confidential commercial objective		Not achieved (0%)
	Secure additional JDA with existing customer		Achieved (5%)
	Drive all Samsung litigation activities		Achieved (5%)
	Improve employee engagement		Partial (4%)
Dr Nigel Pickett	**Financial and corporate measures**	80	62.1%
	Personal objectives	20	13%
	Deliver all critical technical milestones for JDA 1		Achieved (4%)
	Deliver all critical technical milestones for JDA 2		Achieved (4%)
	Focused expansion of IP portfolio		Partial (1%)
	Support all Samsung litigation activities		Achieved (4%)
	Confidential commercial objective		Not achieved (0%)
Liam Gray	**Financial and corporate measures**	80	62.1%
	Personal objectives	20	16%
	Effective transition to CFO		Partial (4%)
	Development of support services		Partial (2%)
	Support development of new commercial opportunities		Achieved (5%)
	Outperform FY22 overhead and cash targets		Achieved (5%)

DBPs granted in respect of the FY19 annual bonus plan vested in full during the year. No long-term incentives vested during the year ended 31 July 2022.

Directors’ remuneration report continued

Annual report on remuneration continued

LTIP awards granted in FY22

Awards to the Executive Directors made on 9 November 2021 were as follows:

Director	Type of award	Percentage of salary[1] %	Number of shares	Face value at grant date[1] £’000	Face value at grant less exercise price £’000	Performance period Years
Brian Tenner	Share award	100%	1,184,834	250	250	3
Nigel Pickett	Share award	100%	927,488	196	196	3
Liam Gray	Share award	100%	533,175	112	112	3

Awards to the Executive Directors made on 1 December 2021 following shareholder approval at the AGM:

Director	Type of award	Percentage of salary[1] %	Number of shares	Face value at grant date[1] £’000	Face value at grant less exercise price £’000	Performance period Years
Brian Tenner	Share award	50%	592,417	125	125	3
Nigel Pickett	Share award	50%	463,744	98	98	3
Liam Gray	Share award	50%	266,588	56	56	3

LTIP granted 9 November 2021 and 1 December 2021	Threshold target	Maximum target
Share price	£0.35	£0.55
Vesting ratio	25%	100%

1 The face value of the awards is calculated based on a share price of £0.211, being the three-day average share price to 5 November 2021 used to determine the number of shares under award as referred to in the announcement on 9 November 2021.

Payments made to former Directors and payments for loss of office during the year (audited information)

No payments for loss of office were made during the year. Michael Edelman, the former CEO, was employed during the year as a special advisor, on an annual salary of $35,000.

Annual report on remuneration continued

Statement of Directors' shareholding and share interests (audited information)

Directors' interests in share options to acquire ordinary shares of 10 pence in the Company, including options held under the Deferred Bonus Plan, were as follows:

Share options	Date granted	Exercise price	At 1 August 2021	Exercised during the year	Lapsed	Granted during the year	**At 31 July 2022**
Dr Nigel Pickett	25 Nov 2011	50.00p	500,000	–	(500,000)	–	**–**
	22 Oct 2012	57.00p	750,000	–	–	–	**750,000**
	22 Nov 2016[1,3]	Nil	66,576	–	–	–	**66,576**
	1 Nov 2019[1,3]	Nil	437,681	–	–	–	**437,681**
	10 Dec 2019[1,3]	Nil	437,681	–	–	–	**437,681**
	21 Oct 2020[2]	Nil	1,647,668	–	–	–	**1,647,668**
	9 Nov 2021[3]	Nil	–	–	–	399,929	**399,929**
	9 Nov 2021[2]	Nil	–	–	–	927,488	**927,488**
	1 Dec 2021[2]	Nil	–	–	–	463,744	**463,744**
Brian Tenner	1 Nov 2019[1,3]	Nil	521,634	–	–	–	**521,634**
	10 Dec 2019[1,3]	Nil	521,634	–	–	–	**521,634**
	21 Oct 2020[2]	Nil	2,485,956	–	–	–	**2,485,956**
	9 Nov 2021	Nil	–	–	–	452,555	**452,555**
	9 Nov 2021[2]	Nil	–	–	–	1,184,834	**1,184,834**
	1 Dec 2021[2]	Nil	–	–	–	592,417	**592,417**
Liam Gray	21 Oct 2020[2]	Nil	543,891	–	–	–	**543,891**
	9 Nov 2021[3]	Nil	–	–	–	35,157	**35,157**
	9 Nov 2021[2]	Nil	–	–	–	533,175	**533,175**
	1 Dec 2021[2]	Nil	–	–	–	266,588	**266,588**

1 Vested but unexercised share options.

2 Unvested share options still subject to performance conditions.

3 Deferred Bonus Plan awards.

Director shareholdings

In order to align the interests of Executive Directors with those of shareholders and to demonstrate the Executive Directors' ongoing personal financial commitment to the business, Executive Directors will be expected to build up a shareholding. Under the policy approved by shareholders at the 2021 AGM, the required holding was standardised at 200% of salary for all Executive Directors. Executive Directors are required to retain at least 50% of any post-tax shares that vest under any share incentive plans until this shareholding is reached.

Dr Nigel Pickett holds shares substantially in excess of the shareholding guideline (c. 2,072% of salary using the three-month average closing share price to the end of July 2022). Brian Tenner, having joined the Company in August 2018, is building up a holding which currently stands at 87% of salary (or 195% assuming 50% of Deferred Bonus Plan awards are retained until the minimum shareholding is achieved). Liam Gray, having joined the Board in November 2021, is building up a holding which currently stands at 15% of salary (20% assuming 50% of all Deferred Bonus Plan awards are retained until the minimum shareholding is achieved). Non-Executive Directors are not subject to the shareholding requirement.

Directors’ remuneration report continued

Annual report on remuneration continued

Director shareholdings continued

Directors’ interests in the shares of the Company, including family and beneficial interests, at 31 July 2022 were:

	Ordinary shares of 10p each			
	31 July 2022 Number	**31 July 2022 %**	31 July 2021 Number	31 July 2021 %
Current Directors				
Dr Christopher Richards	**769,270**	**0.24**	728,730	0.24
Dr Nigel Pickett	**11,272,575**	**3.50**	11,245,548	3.68
Brian Tenner	**605,888**	**0.19**	592,375	0.19
Liam Gray	**48,931**	**0.02**	–	–
Dr Alison Fielding	**279,697**	**0.09**	239,157	0.08
Chris Batterham	**194,111**	**0.06**	153,571	0.05
Henry Turcan[1]	**–**	**–**	–	–
Total for current Directors	**13,170,472**	**4.10**	12,959,381	4.24

1 Henry Turcan is a representative of LOAM, and holds no shares directly.

None of the Directors in office as at 31 July 2022 had any interests at that date in shares of any other group company.

There were no changes in Directors’ shareholdings between 31 July 2022 and the publishing date of these accounts.

The market price for Nanoco shares as at 31 July 2022 was 37.0 pence per share; the highest and lowest prices during the year were 46.0 pence and 17.1 pence respectively.

Details of share options are set out in note 24 to the financial statements.

Dilution

The Company complies with the relevant institutional investor guidelines on employee share plans which state that in any ten-calendar-year period the Company may not issue more than 10% of the issued ordinary share capital of the Company under the LTIP or any other employee share plan adopted by the Company. Including only option grants post admission to AIM and excluding any awards that have lapsed, the current dilution is 8.04%.

Annual report on remuneration continued

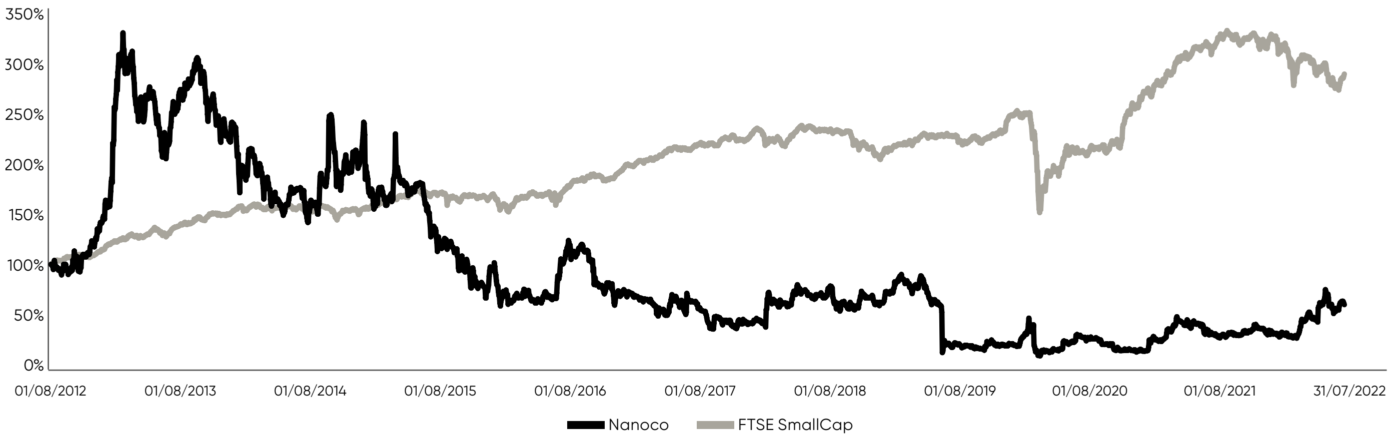
Unaudited information

Historical comparative TSR performance graph

The performance graph below shows the Company's total shareholder return ("TSR") against the FTSE SmallCap over the period from 1 August 2012 to 31 July 2022. In the opinion of the Board, the FTSE SmallCap is the most appropriate index against which the TSR of the Company should be measured because it represents a broad equity market index of which the Company is again a constituent member.

Total shareholder return

The graph shows the percentage return of an investment in the Company's shares on 1 August 2012 compared with the percentage return of an investment notionally invested in the FTSE SmallCap index.



Ten-year view of CEO remuneration

CEO remuneration	2013	2014	2015	2016	2017	2018	2019	2020	2021	**2022**
Total remuneration (£'000)[1]	707	293	635	406	327	312	505	323	298[2]	**503**
Annual bonus (% of max vesting)	73	56	56	40	–	–	52	–	43	**75**
LTIP (% of max vesting)	–	–	100	–	–	–	–	–	–	**–**

1 The previous CEO's (Dr Michael Edelman) remuneration was paid in US Dollars but reported in Sterling in this table for the years 2013 to 2020. The exchange rate used for this purpose varied during the year.

2 Brian Tenner was appointed CEO on 1 September 2020, having previously been CFO and COO. There was no change in Brian Tenner's remuneration at that time to reflect the change in position with the proposed increase being made in two deferred tranches on 1 August 2021 and 1 August 2022. Having regard to the proportion of 2021 for which Brian Tenner was CEO, his remuneration as a Director for the full year is included for that year, and the remuneration of Dr Michael Edelman for the part of the year when he was CEO is not included.

Directors' remuneration report continued

Annual report on remuneration continued

Unaudited information continued

Percentage change in the remuneration of the Board

The table below shows the percentage change in each Director's salary, benefits and annual bonus between the current and previous financial year, and the average percentage change in the same remuneration over the same period in respect of the employees of the Company on a full-time equivalent basis. The average employee change has been calculated by reference to the mean of employee pay. Liam Gray and Henry Turcan were appointed during the year ended 31 July 2022 and, accordingly, have been excluded from the table below.

		Average employee	Brian Tenner	Dr Nigel Pickett	Dr Christopher Richards	Dr Alison Fielding	Christopher Batterham
Salary/fees[1]	**FY22**	**4%**	**31%**	**16%**	**30%**	**30%**	**30%**
	FY21	7%	(8%)	(9%)	(13%)	(13%)	(13%)
	FY20	1%	1%	(2%)	(2%)	(1%)	(1%)
Taxable benefits	**FY22**	**N/A**	**N/A**	**N/A**	**N/A**	**N/A**	**N/A**
	FY21	N/A	N/A	N/A	N/A	N/A	N/A
	FY20	N/A	N/A	N/A	N/A	N/A	N/A
Annual bonus	**FY22**	**0%**	**100%**	**100%**	**N/A**	**N/A**	**N/A**
	FY21	100%	0%	0%	N/A	N/A	N/A
	FY20	0%	(100%)	(100%)	N/A	N/A	N/A

1 As noted on page 63, the Non-Executive Directors' fees were reduced by 35% between 1 April 2020 and 31 March 2021, and deferred by 35% with effect from 1 April 2021. This deferral was repaid in July 2022.

The data above is distorted by a number of factors including joining dates, changes in roles and salary and by pay cuts taken by Directors as part of Company actions to manage the Covid-19 Pandemic. Some but not all staff had 20% pay cuts for six months. Executive Directors and other members of the Leadership Team had 20% pay cuts for a full twelve months. The increases in Executive pay in FY22 are therefore primarily or wholly the result of the end of the temporary Covid-19 Pandemic pay cut.

Relative importance of spend on pay

The following table sets out the percentage change in dividends and the overall expenditure on pay (across the whole group).

	Year ended 31 July 2022 £'000	Year ended 31 July 2021 £'000	% change
Dividends	**–**	–	–
Overall expenditure on pay	**2,827**	3,150	(10%)
Average headcount	**40**	51	(22%)

Implementation of policy for the year commencing 1 August 2022

Base salary

Base salaries are reviewed annually with effect from 1 August. For the year commencing 1 August 2022, the second deferred tranche of the increase in Brian Tenner's salary as CEO is being implemented. In addition, Liam Gray's pay has also increased to reflect his progress in his role as CFO and Company Secretary on the Board. Other Executive Directors have had an increase of 6% in line with the wider workforce.

	2022	2021	% change
Chief Executive Officer – Brian Tenner	**£291,500**	£250,000	17%
Chief Technical Officer – Dr Nigel Pickett	**£207,442**	£195,700	6%
Chief Financial Officer – Liam Gray	**£148,400**	£120,000	24%

Changes to Non-Executive Directors' fees

The Non-Executive Directors' fees have been frozen at the same level as last year. A temporary 35% pay deferral was reversed in July 2022.

	2022 (contracted)	2021 (paid)	2021 (contracted)
Chairman fee	**£100,000**	£76,667	£100,000
NED base fee	**£41,000**	£31,433	£41,000
Chair of Committee fee	**£5,000**	£3,833	£5,000

Annual report on remuneration continued

Unaudited information continued

Implementation of policy for the year commencing 1 August 2022 continued

Pension

The Company operates a salary sacrifice pension arrangement. For the year commencing 1 August 2022, employer pension contributions above the amount of any salary sacrifice (and the associated employer National Insurance contribution savings) have increased to 7.5% of salary for the whole workforce, including the Executive Directors.

Annual bonus

For the year ending 31 July 2023, the maximum annual bonus potential will be 125% of base salary for Executive Directors. Up to the full amount of any such bonus earned can be paid as deferred shares under the DBP vesting after two years with any balance paid in cash. This reflects our stakeholder philosophy, provides a longer-term retention mechanism and provides alignment with shareholders.

Consistent with the 2022 annual bonus, performance will be assessed on the basis of a balanced scorecard approach in respect of performance measures. The balance between corporate financial objectives (80%) and personal objectives (20%) will be unchanged. The corporate financial measures for FY23 will include annual revenue and LBITDA weighted 60%:20% respectively. Any personal bonus is only payable if at least one of the financial targets is achieved. The Committee will disclose the metrics and performance against these on a retrospective basis to the extent that these are not commercially sensitive.

Clawback will apply to any cash bonus paid and malus provisions to any unvested deferred bonus award.

LTIP

The Committee intends to make awards of approximately 150% of salary to the CEO, CTO and CFO after the announcement of the group's full year results for the year ended 31 July 2022 (subject to market conditions at the time of award). The Committee will agree targets if and when any LTIP awards are made during FY23. All awards will continue to be in line with the approved remuneration policy. This will include a two-year post-vesting holding period.

Statement of voting

The Company is committed to ongoing dialogue with its shareholders and takes an active interest in trying to ensure that as many shareholders as possible submit their votes in time for any shareholder meetings. The following table sets out the actual voting in respect of the resolutions in respect of Director remuneration at the Company's Annual General Meeting held on 30 November 2021.

Resolution	Votes for	% for	Votes against	% against	Votes withheld
To approve the Directors' remuneration report	138,346,965	99.0%	1,420,624	1.0%	169,994
To approve the Directors' remuneration policy	138,307,164	99.0%	1,451,931	1.0%	178,488

Directors' contracts

It is the group's policy that Executive Directors should have contracts with an indefinite term, providing for six months' notice.

	Date of contract	Date of appointment	Notice from the Company	Notice from Director
Brian Tenner	30 July 2018	30 July 2018	6 months	6 months
Dr Nigel Pickett	27 June 2006	27 June 2006	6 months	6 months
Liam Gray	8 November 2022	8 November 2022	6 months	6 months

All Directors will offer themselves for re-election at each AGM in accordance with the UK Corporate Governance Code. Service contracts are available for inspection at the registered office of the Company.

	Date of letter of appointment	Date of appointment	Unexpired term of contract on 31 July 2022
Dr Christopher Richards (Chairman)	28 October 2015	11 November 2015	~ 4 months
Dr Alison Fielding	20 March 2017	20 April 2017	~ 9 months
Chris Batterham	12 March 2019	1 April 2019	~ 8 months
Henry Turcan	1 September 2021	1 September 2021	~ 25 months[1]

1 Henry Turcan stepped down from the Board with immediate effect from 12 September 2022.

Non-Executive Directors

All Non-Executive Directors are appointed for an initial three-year term and then on a rolling annual term. Non-Executive Directors' appointments may be terminated on not less than three months' notice from either party.

On behalf of the Board

Dr Alison Fielding
Remuneration Committee Chair
28 October 2022

Directors' report

The Directors present their report and the audited financial statements for the group and Parent Company for the year ended 31 July 2022.

Financial instruments

Details of the group's financial risk management objectives and policies are disclosed in note 3 to the financial statements.

Research and development

The principal activity of the group is research and development, a review of which is included in the Chairman's and Chief Executive Officer's statements on pages 6 to 9 and 9 to 16 respectively.

Total research and development spend was £2.1 million (2021: £2.2 million). No development expenditure was capitalised in the year (2021: £nil) for the reasons provided in note 3(h) to the accounts.

Dividends

The Directors do not recommend payment of an ordinary dividend (2021: £nil).

Disclosures reported elsewhere in the Annual Report

The strategic review of the business of the Company and its subsidiaries is given on pages 6 to 40. Certain information required for disclosure in this report is provided in other appropriate sections of this Annual Report. These are set out in the table below:

Disclosure requirement	Pages
Financial results and dividends	24 to 26
Board and Committee meetings and Directors' attendance	43
Directors' biographical details and date of appointment	40 and 41
Corporate governance	42 to 49
Approach to risk management and principal risks	27 to 29
Research and development activities	2 and 23
Directors' remuneration	61 to 79
Greenhouse gas emissions, employee engagement, disability, gender and human rights	34 to 39
Statement on disclosure to the external auditors	83
Statement of Directors' responsibilities	83
Future developments	8 and 11
Going concern statement	32
Disclosures on financial instruments (note 27 to the consolidated financial statements)	115 to 118

The disclosures are, accordingly, incorporated into this report by reference.

Requirements of the Listing Rules

The following table provides references to where the information required by the Listing Rule 9.8.4R is disclosed:

Listing Rule requirement	Location
Information required in relation to the publication of unaudited financial information	Not applicable
Details of any long-term incentive schemes	Remuneration report
Directors who held office during the year and their interests in shares and share options in the group	Remuneration report
Arrangements where a Director has waived historical or future emoluments from the Company	Remuneration report on Chairman's fees
Details of business relationships with suppliers, customers and others	Strategic report
Details of any non-pre-emptive issues of equity for cash	Not applicable
Details of any non-pre-emptive issues of equity for cash by any unlisted major subsidiary	No such share allotments
Details of UK Parent participation in a placing by a listed subsidiary	No such share participations
Details of any contract of significance in which a Director is or was materially interested	No such contracts
Details of rules regarding the appointment and replacement of Directors	Remuneration report
Contracts of significance between the Company (or a subsidiary) and a controlling shareholder	No such contracts
Details of a waiver of dividends by a shareholder	No such waivers
Board statement in respect of relationship agreement with the controlling shareholder	No such agreements

Acquisition of the Company's own shares

The Company made no purchases of its own shares in the year under review. As at 31 July 2022 the authority given by the shareholders at the 2021 Annual General Meeting is for the Company to make market purchases of up to £3,056,869 of the nominal value of its ordinary shares at a price per share of not less than 10 pence, and not more than 5% above the average of the middle market quotations for ordinary shares of the Company for the five business days immediately preceding the day of purchase. This authority is being proposed for renewal at the 2022 Annual General Meeting.

Share capital and funding

As at 31 July 2022 share capital comprised 322.4 million ordinary shares of 10 pence each (2021: 305.7 million). There is only one class of share and all shares are fully paid. Full details of the group's and Company's share capital movements during the year are given in note 22 to the financial statements.

Pursuant to the general provisions of the Articles of Association and prevailing legislation, there are no specific restrictions on the size of a holding. The Directors are not aware of any restrictions on the transfer of ordinary shares in the Company other than certain restrictions which may from time to time be imposed by law and regulations, e.g. insider trading laws, and pursuant to the Listing Rules of the Financial Conduct Authority whereby certain employees of the Company require prior approval from the Company to deal in the Company's securities.

The Company is not aware of any agreements between shareholders that may result in restrictions on voting rights and the transfer of securities.

Details of shares under option are provided in note 24 to the financial statements.

Directors and their interests

The Directors who held office throughout the year and their interests are shown in the Remuneration report. As at 31 July 2022, none of the Directors had any interests in shares of any other group company.

No Director had an interest in any contract that was significant in relation to the group's business at any time during the year.

Directors are formally subject to re-election at intervals of not more than three years but voluntarily submit themselves for re-election each year.

In the case of each Director in office at the date the Directors' report is approved:

→ so far as the Director is aware, there is no relevant audit information of which the group and Company's auditors are unaware; and

→ they have taken all the steps that they ought to have taken as a Director in order to make themselves aware of any relevant audit information and to establish that the group and Company's auditors are aware of that information.

Directors' indemnity insurance

The group has maintained insurance in the form of a qualifying third party indemnity provision throughout the year for its Directors and officers against the consequences of actions brought against them in relation to their duties for the group. This provision was in force through the financial year and remains in force as at the date of approval of the financial statements.

Substantial shareholders

The Company is aware that the following had an interest in 3% or more of the issued ordinary share capital of the Company at 31 July 2022:

Substantial shareholders	Number of ordinary shares at 31 July 2022	% of issued share capital
Lombard Odier Asset Management	**77,014,050**	**23.89**
Hargreaves Lansdown Asset Management	**49,256,899**	**15.28**
Interactive Investor	**28,006,786**	**8.69**
Dr Nigel Pickett	**11,272,575**	**3.50**
Tariq Hamoodi	**10,866,006**	**3.37**
Barclays Smart Investor	**10,220,589**	**3.17**
HSDL, stockbrokers	**9,912,359**	**3.07**

There were no notified significant changes in the holdings between 31 July 2022 and the date the Annual Report and Accounts was signed.

Donations

No political donations were made in the year (2021: £nil). Charitable donations of £nil were made in the year (2021: £nil).

Compliance with the UK Corporate Governance Code

The statements of compliance with the principles of the UK Corporate Governance Code published by the FRC in 2018 are set out on page 47.

Foreign branches

The group has just one foreign location, a subsidiary in the United States, which provides management services to the UK business.

Directors' report continued

Additional information for shareholders

With regard to the appointment and replacement of Directors, the Company is governed by its Articles of Association, the UK Corporate Governance Code 2018, the Companies Act 2006 and related legislation.

The Articles themselves may be amended by special resolution of the shareholders. The Articles provide that Directors may be appointed by an ordinary resolution of the Company's members or by a resolution of the Directors, provided that, in the latter instance, a Director appointed in this way retires and stands for election at the first Annual General Meeting following his appointment.

The Articles also provide that at every Annual General Meeting at least one-third of the Directors retire by rotation and set out the circumstances in which and how they may be re-elected. The Company's members may remove a Director by passing an ordinary resolution of which special notice has been given. The office of a Director shall be vacated in any of the following events: (a) if (but in the case of a Director holding any executive office subject to the terms of any contract of service between him and the Company) notification in writing, signed by the Director or otherwise authenticated in such manner as the other Directors may accept, is received by the Company from the Director that he is resigning or retiring from office as a Director, and such resignation or retirement has taken effect in accordance with its terms, or if he shall in writing offer to resign or retire and the Directors shall resolve to accept such offer; (b) if he becomes bankrupt or has a receiving order made against him or makes any arrangement or composition with his creditors generally in satisfaction of his debts or shall apply to the court for an interim order under section 253 of the Insolvency Act 1986; (c) if a registered medical practitioner who is treating the Director gives a written opinion to the Company stating that he has become physically or mentally incapable of acting as a Director and may remain so for more than three months; (d) if he is absent from meetings of the Directors for six successive months without leave, and his alternate Director (if any) shall not during such period have attended in his stead, and the Directors resolve that his office be vacated; (e) if he shall be removed from office by notice in writing served upon him signed by all his co-Directors, but so that if he holds an appointment to an executive office which automatically determines, as a result, such removal shall be deemed an act of the Company and shall have effect without prejudice to any claim for damages for breach of any contract of service between him and the Company; or (f) if he ceases to be a Director by virtue of any provision of the Companies Act or becomes prohibited by law from being a Director.

The powers of the Directors are determined by applicable legislation and the Company's Articles of Association. As provided in those Articles, the Directors may exercise all the Company's powers provided that the Articles or applicable legislation do not stipulate that any such powers must be exercised by the Company's members. The Directors have been authorised to issue and allot ordinary shares, pursuant to the Articles, and have authority to make market purchases of shares. These powers are referred to shareholders at each Annual General Meeting for renewal. Any shares purchased may be cancelled or held as treasury shares.

Employment policies

The group is committed to ensuring the health and safety of its employees in the workplace. This includes the provision of regular medical checks.

The group supports the employment of disabled people where possible through recruitment, by retention of those who become disabled and generally through training, career development and promotion.

The group is committed to keeping employees as fully informed as possible with regard to the group's performance and prospects and seeks their views, wherever possible, on matters which affect them as employees.

Independent auditors

Mazars LLP were appointed during the year following an external tender process. Mazars LLP have indicated their willingness to continue in office.

Ordinary resolutions to re-appoint Mazars LLP as auditors and to authorise the Directors to agree their audit fee will be proposed at the forthcoming Annual General Meeting.

Annual General Meeting notice

The Annual General Meeting of the Company will be held on 20 December 2022 at 11.00am, at the Company's headquarters at The Conference Centre, The Heath Business and Technical Park, Runcorn, WA7 4QX. Shareholders will have the option to attend in person or through teleconference, with the teleconference details to be provided. The notice convening the AGM, together with an explanation of the resolutions to be proposed at the meeting, will be sent to shareholders separately from this document.

Post Balance Sheet Events

Henry Turcan stepped down from the Board of Directors on 12 September 2022.

On behalf of the Board

Brian Tenner
Chief Executive Officer
28 October 2022

Statement of directors' responsibilities in respect of the financial statements

The directors are responsible for preparing the Annual Report and Accounts 2022 and the financial statements in accordance with applicable law and regulation.

Company law requires the directors to prepare financial statements for each financial year. Under that law the directors have prepared the group and the company financial statements in accordance with international accounting standards in conformity with the requirements of the Companies Act 2006. Additionally, the Financial Conduct Authority's Disclosure Guidance and Transparency Rules require the directors to prepare the group financial statements in accordance with international financial reporting standards adopted pursuant to Regulation (EC) No 1606/2002 as it applies in the European Union.

The company has also prepared financial statements in accordance with and international financial reporting standards adopted pursuant to Regulation (EC) No 1606/2002 as it applies in the European Union.

Under company law, 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. In preparing the financial statements, the directors are required to:

- select suitable accounting policies and then apply them consistently;
- state whether applicable international accounting standards in conformity with the requirements of the Companies Act 2006 and international financial reporting standards adopted pursuant to Regulation (EC) No 1606/2002 as it applies in the European Union have been followed, subject to any material departures disclosed and explained in the financial statements;
- make judgements and accounting estimates that are reasonable and prudent; and
- prepare the financial statements on the going concern basis unless it is inappropriate to presume that the group and company will continue in business.

The directors are responsible for safeguarding the assets of the group and company and hence for taking reasonable steps for the prevention and detection of fraud and other irregularities.

The directors are also responsible for keeping adequate accounting records that are sufficient to show and explain the group's and company's transactions and disclose with reasonable accuracy at any time the financial position of the group and company and enable them to ensure that the financial statements and the Directors' Remuneration Report comply with the Companies Act 2006.

Directors' confirmations

The directors consider that the Annual Report and Accounts 2022 and accounts, taken as a whole, is fair, balanced and understandable and provides the information necessary for shareholders to assess the group's and company's position and performance, business model and strategy.

Each of the directors, whose names and functions are listed in the Corporate Governance Report confirm that, to the best of their knowledge:

- the group and company financial statements, which have been prepared in accordance with international accounting standards in conformity with the requirements of the Companies Act 2006 and international financial reporting standards adopted pursuant to Regulation (EC) No 1606/2002 as it applies in the European Union, give a true and fair view of the assets, liabilities and financial position of the group and company, and of the loss of the group; and
- the Directors' report includes a fair review of the development and performance of the business and the position of the group and company, together with a description of the principal risks and uncertainties that it faces.

By order of the Board

Brian Tenner
Chief Executive Officer
28 October 2022

Independent auditors' report to the members of Nanoco Group plc

Opinion

We have audited the financial statements of Nanoco Group plc (the 'parent company') and its subsidiaries (the 'group') for the year ended 31 July 2022 which comprise the Consolidated Statement of Comprehensive Income, the Consolidated Statement of Financial Position, the Consolidated Statement of Changes in Equity, the Consolidated Statement of Cash Flow, the Company Statement of Financial Position, the Company Statement of Changes in Equity; and the Notes to the Consolidated Financial Statements and the Notes to the Company 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.

- → give a true and fair view of the state of the group's and of the parent company's affairs as at 31 July 2022 and of the group's loss for the year then ended;
- → have been properly prepared in accordance with 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; and
- → have been prepared in accordance with the requirements of the Companies Act 2006.

Basis for opinion

We conducted our audit in accordance with International Standards on Auditing (UK) (ISAs (UK)) and applicable law. Our responsibilities under those standards are further described in the "Auditor's responsibilities for the audit of the financial statements" section of our report. We are 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 public interest entities and we have fulfilled our other ethical responsibilities in accordance with these requirements. We believe that the audit evidence we have obtained is sufficient and appropriate to provide a basis for our opinion.

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 audit procedures to evaluate the directors' assessment of the group's and the parent company's ability to continue to adopt the going concern basis of accounting included but were not limited to:

- → Undertaking an initial assessment at the planning stage of the audit to identify events or conditions that may cast significant doubt on the group's and the parent company's ability to continue as a going concern;
- → Obtaining an understanding of the relevant controls relating to the directors' going concern assessment;
- → Making enquiries of the directors to understand the period of assessment considered by them, the assumptions they considered and the implication of those when assessing the group's and the parent company's future financial performance;
- → Challenging the appropriateness of the directors' key assumptions in their cash flow forecasts, as described in note 2c, by reviewing supporting and contradictory evidence in relation to these key assumptions and assessing the directors' consideration of severe but plausible scenarios. This included assessing the viability of mitigating actions within the directors' control;
- → Testing the accuracy and functionality of the model used to prepare the directors' forecasts;
- → Assessing the historical accuracy of forecasts prepared by the directors;
- → Engaging in regular discussions with the directors regarding the status of negotiations in respect of new financing options;
- → Assessing and challenging any key assumptions and mitigating actions put in place in response to Covid-19;
- → Considering the consistency of the directors' forecasts with other areas of the financial statements and our audit; and
- → Evaluating the appropriateness of the directors' disclosures in the financial statements on going concern.

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's 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.

In relation to the group's reporting on how it has applied the UK Corporate Governance Code, we have nothing material to add or draw attention to in relation to the directors' statement in the financial statements about whether the director's considered it appropriate to adopt the going concern basis of accounting.

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) 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.

We summarise below the key audit matters in forming our opinion above, together with an overview of the principal audit procedures performed to address each matter and our key observations arising from those procedures.

These matters, together with our findings, were communicated to those charged with governance through our Audit Completion Report.

Key audit matters continued

Key Audit Matter	How our scope addressed this matter
Recoverability of intangible assets (Relevant to the group and all Subsidiaries)	
The carrying value of group intangible assets as at 31 July 2022 amounted to £1,616k. During the year, the group recognised an impairment charge of £859k. As disclosed in note 2(e) to the financial statements, the recoverability of the intangible assets, the value of which is driven by the patent portfolio held at any reporting date, involves judgement as to whether the carrying value of each patent is higher than its recoverable amount. The judgements and estimates used in determining the impairment assessment can have a material impact on the amounts recognised in the financial statements. Refer to the accounting policies included within note 3(m) to the financial statements and the disclosures included within note 13.	Our audit procedures over the impairment of intangible assets included an evaluation of the methodology adopted and the related controls, in addition to substantive testing: Our evaluation procedures included, but were not limited to: → review of the methodology applied for the impairment review, and → consideration of the review and approval processes adopted. Substantive procedures included, but were not limited to: → We inspected a sample of patents held by the group to confirm the validity of the patents to external sources to assess whether there is an indication of impairment; → We evaluated whether there is adequate support for the assumptions underlying management's assessment of impairment, including their assessment around the market value of the group as a proxy for the value of the patent portfolio. We evaluated whether management's assumptions were realistic, achievable and consistent with the external and/or internal environment and other matters identified during the audit; and → We considered whether appropriate disclosure of the sensitivity of the key judgements have been included in the financial statements. **Our observations** Based on the results of audit work performed we consider the methodologies and assumptions used by management to determine the recoverability of the intangible asset portfolio under IAS 36 to be reasonable.
Impairment of Investment in subsidiaries (Relevant to Parent company only)	
As at 31 July 2022, the carrying value of investment held in subsidiaries included in the company balance sheet amounted to £40,747k. Investment in subsidiaries is recorded at cost less any provision for impairment. Impairment risks arise when the subsidiary assets suffer depreciation in market value. Management estimations and judgements are involved in determining the recoverable amount of investments. Given the loss-making position of the subsidiaries at 31 July 2022, management have performed an assessment of impairment using a fair value model based on the market capitalisation of the group. Refer to the accounting policies included within note 3(m) to the financial statements and the disclosures included within note 14.	Our audit procedures over the impairment of investment in subsidiaries included an evaluation of the methodology adopted. We addressed this risk by performance of following procedures: → We assessed with management the potential indicators of impairment and challenged their approach to assessing any indicators of impairment. → We evaluated the appropriateness of the key assumptions used (the use of fair value rather than a value -in-use model) in their assessment, including understanding the basis on which these assumptions were determined by management; → We performed procedures to assess whether any evidence of management bias exists in the valuation of investment balances with no indicators of management bias identified; and → We reviewed the key inputs into management's fair value calculation, including assessing the number of shares in issues and the share price used. **Our observations** Based on the results of audit work performed we consider the methodologies and assumptions used by management to determine whether there were any indicators of impairment in subsidiaries under IAS 36 to be reasonable.

Independent auditors' report to the members of Nanoco Group plc continued

Key audit matters continued

Key Audit Matter	How our scope addressed this matter
Valuation of Share Based Payments (relevant to Parent company only)	
During the year to 31 July 2022, the group recognised a charge of £619k relating to the Long Term Incentive and Deferred Bonus plans for employees of the group There is a risk that the share based payment schemes are not correctly recognised in accordance with IFRS 2 and that the vesting conditions are not accurately reflected. The valuation of share based payments is complex and is subject to significant management estimates and judgement. There is an inherent risk of management bias in fair value calculations. This risk is increased due to the complexity of share based payment valuation. Refer to the accounting policies included within note 3(r) to the financial statements and the disclosures included within note 24.	Our audit procedures over valuation of the share based payments recognised in the year included an evaluation of the methodology adopted. We addressed this risk by performance of following procedures: → Inspected management's estimation of the share options expected to vest in the future and challenged the logic behind this estimation accordingly. → Engaged a valuation expert to evaluate the reasonableness of the assumptions used in the fair value computation of the options. → Challenged management on the source and support for the assumptions, and the mathematical accuracy of the calculation. → We assessed the appropriateness and completeness of the disclosure of share-based payments in the financial statements. **Our observations** Based on the results of audit work performed we consider the methodologies and assumptions used by management in the valuation of the share based payment plans under IFRS 2 to be reasonable.

Our application of materiality and an overview of the scope of our audit

The scope of our audit was influenced by our application of materiality. We set certain quantitative thresholds for materiality. These, together with qualitative considerations, helped us to determine the scope of our audit and the nature, timing and extent of our audit procedures on the individual financial statement line items and disclosures and in evaluating the effect of misstatements, both individually and on the financial statements as a whole. Based on our professional judgement, we determined materiality for the financial statements as a whole as follows:

	Group materiality	Parent company materiality
Overall materiality	£108,000	£65,000
How we determined it	We determined overall materiality for the group using a benchmark of 1% of total assets.	Overall materiality has been determined with reference to a benchmark of total assets, of which it represents 1% capped at 60% of group materiality.
Rationale for benchmark applied	We have considered the value of total assets to be the critical component for determining materiality given the group's focus on continued growth through its intangible asset portfolio, therefore this is considered most relevant measure of the underlying position of the group.	We have considered the value of total assets to be the critical component for determining materiality given the parent company's focus on continued growth of the group through its investment in subsidiaries, therefore this is considered most relevant measure of the underlying position of the group.
Performance materiality	Performance materiality is set to reduce to an appropriately low level the probability that the aggregate of uncorrected and undetected misstatements in the financial statements exceeds materiality for the financial statements as a whole. On the basis of our risk assessments, together with our assessment of the group's overall control environment, we set performance materiality at approximately 55% of our overall materiality, being £59,000.	Performance materiality is set to reduce to an appropriately low level the probability that the aggregate of uncorrected and undetected misstatements in the financial statements exceeds materiality for the financial statements as a whole. On the basis of our risk assessments, together with our assessment of the company's overall control environment, we set performance materiality at approximately 55% of our overall materiality, being £36,000.
Reporting threshold	We agreed with the Audit Committee that we would report to them misstatements identified during our audit above £3,000 as well as misstatements below that amount that, in our view, warranted reporting for qualitative reasons.	We agreed with the Audit Committee that we would report to them misstatements identified during our audit above £2,000 as well as misstatements below that amount that, in our view, warranted reporting for qualitative reasons.

As part of designing our audit, we assessed the risk of material misstatement in the financial statements, whether due to fraud or error, and then designed and performed audit procedures responsive to those risks. In particular we looked at where the directors made subjective judgements, such as assumptions on significant accounting estimates.

Our application of materiality and an overview of the scope of our audit continued

We tailored the scope of our audit to ensure that we performed sufficient work to be able to give an opinion on the financial statements as a whole. We used the outputs of our risk assessment, our understanding of the group and the parent company, their environment, controls, and critical business processes, to consider qualitative factors to ensure that we obtained sufficient coverage across all financial statement line items.

Our group audit scope included an audit of the group and the parent company financial statements. Based on our risk assessment, Nanoco Group plc, Nanoco Technologies Limited and Nanoco 2D Limited were subject to full scope audit performed by the group audit team.

At the parent company level, the group audit team also tested the consolidation process and carried out analytical procedures to confirm our conclusion that there were no significant risks of material misstatement of the aggregated financial information.

Other information

The other information comprises the information included in the annual report, other than the financial statements and our auditor's report thereon. The directors are responsible for the other information. 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 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.

Opinions on other matters prescribed by the Companies Act 2006

In our opinion, the part of the directors' remuneration report to be audited has been properly prepared in accordance with the Companies Act 2006.

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 those reports have been prepared in accordance with applicable legal requirements;
- the information about internal control and risk management systems in relation to financial reporting processes and about share capital structures, given in compliance with rules 7.2.5 and 7.2.6 in the Disclosure Guidance and Transparency Rules sourcebook made by the Financial Conduct Authority (the FCA Rules), is consistent with the financial statements and has been prepared in accordance with applicable legal requirements; and
- information about the parent company's corporate governance code and practices and about its administrative, management and supervisory bodies and their committees complies with rules 7.2.2, 7.2.3 and 7.2.7 of the FCA Rules.

Matters on which we are required to report by exception

In light of the knowledge and understanding of the group and the parent company and their environment obtained in the course of the audit, we have not identified material misstatements in the:

- strategic report or the directors' report; or
- information about internal control and risk management systems in relation to financial reporting processes and about share capital structures, given in compliance with rules 7.2.5 and 7.2.6 of the FCA Rules.

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 and the part of the directors' remuneration report to be audited are not in agreement with the accounting records and returns; or
- certain disclosures of directors' remuneration specified by law are not made; or
- we have not received all the information and explanations we require for our audit; or
- a corporate governance statement has not been prepared by the parent company.

Corporate governance statement

The Listing Rules require us to review the directors' statement in relation to going concern, longer-term viability and that part of the Corporate Governance Statement relating to the group's compliance with the provisions of the UK Corporate Governance Statement specified for our review.

Based on the work undertaken as part of our audit, we have concluded that each of the following elements of the Corporate Governance Statement is materially consistent with the financial statements or our knowledge obtained during the audit:

- Directors' statement with regards the appropriateness of adopting the going concern basis of accounting and any material uncertainties identified;
- Directors' explanation as to its assessment of the entity's prospects, the period this assessment covers and why they period is appropriate;
- Directors' statement on fair, balanced and understandable;
- Board's confirmation that it has carried out a robust assessment of the emerging and principal risks;
- The section of the annual report that describes the review of effectiveness of risk management and internal control systems, and;
- The section describing the work of the audit committee.

Responsibilities of Directors

As explained more fully in the directors' responsibilities statement set out on page 83, 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

Independent auditors' report to the members of Nanoco Group plc continued

Responsibilities of Directors continued

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.

The extent to which our procedures are capable of detecting irregularities, including fraud is detailed below.

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.

Based on our understanding of the group and the parent company and their industry, we considered that non-compliance with the following laws and regulations might have a material effect on the financial statements: employment regulations, health and safety regulations, anti-money laundering regulations, compliance with the Data Protection Act, Patent regulations and compliance with London Stock Exchange rules for premium listed companies.

To help us identify instances of non-compliance with these laws and regulations, and in identifying and assessing the risks of material misstatement in respect to non-compliance, our procedures included, but were not limited to:

- Gaining an understanding of the legal and regulatory framework applicable to the group and the parent company, the industry in which they operate, and the structure of the group, and considering the risk of acts by the group and the parent company which were contrary to the applicable laws and regulations, including fraud;
- Inquiring of the directors, management and, where appropriate, those charged with governance, as to whether the group and the parent company is in compliance with laws and regulations, and discussing their policies and procedures regarding compliance with laws and regulations;
- Inspecting correspondence with relevant licensing or regulatory authorities including Patent regulations within countries in which the group operates;
- Reviewing minutes of directors' meetings in the year; and
- Discussing amongst the engagement team the laws and regulations listed above, and remaining alert to any indications of non-compliance.

We also considered those laws and regulations that have a direct effect on the preparation of the financial statements, such as tax legislation, pension legislation, the Companies Act 2006.

In addition, we evaluated the directors' and management's incentives and opportunities for fraudulent manipulation of the financial statements, including the risk of management override of controls, and determined that the principal risks related to posting manual journal entries to manipulate financial performance, management bias through judgements and assumptions in significant accounting estimates, in particular in relation to revenue recognition (which we pinpointed to the occurrence assertion), impairment of investments, recovery of intangible assets, and significant one-off or unusual transactions.

Our procedures in relation to fraud included but were not limited to:

- Making enquiries of the directors and management on whether they had knowledge of any actual, suspected or alleged fraud;
- Gaining an understanding of the internal controls established to mitigate risks related to fraud;
- Discussing amongst the engagement team the risks of fraud; and
- Addressing the risks of fraud through management override of controls by performing journal entry testing.

The primary responsibility for the prevention and detection of irregularities, including fraud, rests with both those charged with governance and management. As with any audit, there remained a risk of non-detection of irregularities, as these may involve collusion, forgery, intentional omissions, misrepresentations or the override of internal controls.

The risks of material misstatement that had the greatest effect on our audit are discussed in the "Key audit matters" section of this report.

A further description of our responsibilities is available on the Financial Reporting Council's website. This description forms part of our auditor's report.

Other matters which we are required to address

Following the recommendation of the audit committee, we were appointed by the board of directors on 21 June 2022 to audit the financial statements for the year ending 31 July 2022. The period of total uninterrupted engagement is 1 year.

The non-audit services prohibited by the FRC's Ethical Standard were not provided to the group or the parent company and we remain independent of the group and the parent company in conducting our audit.

Our audit opinion is consistent with our additional report to the audit committee.

Use of the audit report

This report is made solely to the company's members as a body in accordance with Chapter 3 of Part 16 of the Companies Act 2006. Our audit work has been undertaken so that we might state to the company's members those matters we are required to state to them in an auditor's report and for no other purpose. To the fullest extent permitted by law, we do not accept or assume responsibility to anyone other than the company and the company's members as a body for our audit work, for this report, or for the opinions we have formed.

Valerie Levi (Senior Statutory Auditor) for and on behalf of Mazars LLP
Chartered Accountants and Statutory Auditor
One St Peter's Square
Manchester
M2 3DE
28 October 2022

Consolidated statement of comprehensive income

for the year ended 31 July 2022

	Notes	2022 £'000	2021 Restated[1] £'000
Revenue	4	**2,467**	2,091
Cost of sales		**(420)**	(343)[1]
Gross profit		**2,047**	1,748
Other operating income	5	**361**	183
Operating expenses			
Research and development expenses		**(1,770)**	(2,150)
Administrative expenses		**(5,409)**	(4,790)[1]
Operating loss	6	**(4,771)**	(5,009)
- before share-based payments		**(4,152)**	(4,592)
- share-based payments	24	**(619)**	(417)
Finance income	8	**–**	–
Finance expense	8	**(450)**	(71)
Loss before taxation		**(5,221)**	(5,080)
Taxation	9	**524**	685
Loss after taxation		**(4,697)**	(4,395)
Other comprehensive income/(loss)			
Gain on exchange rate translations		**–**	–
Total comprehensive loss for the year		**(4,697)**	(4,395)
Loss per share			
Basic and diluted loss for the year	11	**(1.52p)**	(1.44p)

1 The comparative balances for Cost of Sales and Administrative expenses have been restated for the year ended 31 July 2021. Refer to note 2b of the accounting policies for more information.

The loss for the current and preceding year arises from the group's continuing operations and is attributable to the equity holders of the Parent.

The basic and diluted loss per share are the same as the effect of share options is anti-dilutive.

The notes on pages 93 to 119 form an integral part of these financial statements.

Consolidated statement of changes in equity

for the year ended 31 July 2022

Group	Share capital £'000	Share premium £'000	Reverse acquisition reserve £'000	Share-based payment reserve £'000	Merger reserve £'000	Accumulated losses £'000	Total £'000
At 1 August 2020	30,570	117,292	(77,868)	3,901	(1,242)	(65,623)	7,030
Loss for the year	–	–	–	–	–	(4,395)	(4,395)
Other comprehensive income	–	–	–	–	–	–	–
Total comprehensive loss	–	–	–	–	–	(4,395)	(4,395)
Share-based payments	–	–	–	417	–	–	417
At 31 July 2021	30,570	117,292	(77,868)	4,318	(1,242)	(70,018)	3,052
Loss for the year	–	–	–	–	–	(4,697)	(4,697)
Other comprehensive income	–	–	–	–	–	–	–
Total comprehensive loss	–	–	–	–	–	(4,697)	(4,697)
Issue of share capital on placing	1,528	4,127	–	–	–	–	5,655
Costs of share placing	–	(274)	–	–	–	–	(274)
Issue of share capital on exercise of options	146	–	–	(21)	–	–	125
Share-based payments	–	–	–	619	–	–	619
At 31 July 2022	**32,244**	**121,145**	**(77,868)**	**4,916**	**(1,242)**	**(74,715)**	**4,480**

Company statement of changes in equity

for the year ended 31 July 2022

Company	Share capital £'000	Share premium £'000	Share-based payment reserve £'000	Capital redemption reserve £'000	Accumulated losses £'000	Total £'000
At 1 August 2020	30,570	117,292	3,901	4,402	(113,462)	42,703
Loss for the year and total comprehensive loss for the year	–	–	–	–	(6,516)	(6,516)
Share-based payments	–	–	417	–	–	417
At 31 July 2021	30,570	117,292	4,318	4,402	(119,978)	36,604
Loss for the year and total comprehensive loss for the year	–	–	–	–	(340)	(340)
Issue of share capital on placing	1,528	4,127	–	–	–	5,655
Costs of share placing	–	(274)	–	–	–	(274)
Issue of share capital on exercise of options	146	–	(21)	–	–	125
Share-based payments	–	–	619	–	–	619
At 31 July 2022	**32,244**	**121,145**	**4,916**	**4,402**	**(120,318)**	**42,389**

Group and Company statements of financial position

at 31 July 2022

Registered no. 05067291

	Notes	31 July 2022 Group £'000	31 July 2022 Company £'000	31 July 2021 Group £'000	31 July 2021 Company £'000
Assets					
Non-current assets					
Tangible fixed assets	11	**98**	**–**	199	–
Right of use assets	12	**56**	**–**	340	–
Intangible assets	13	**1,616**	**–**	2,858	–
Investment in subsidiaries	14	**–**	**40,747**	–	40,128
		1,770	**40,747**	3,397	40,128
Current assets					
Inventories	15	**174**	**–**	110	–
Trade and other receivables	16	**1,664**	**175**	1,227	–
Income tax asset	9	**524**	**–**	686	–
Cash and cash equivalents	17	**6,762**	**5,497**	3,813	1
		9,124	**5,672**	5,836	1
Total assets		**10,894**	**46,419**	9,233	40,129
Liabilities					
Current liabilities					
Trade and other payables	18	**(1,510)**	**(638)**	(1,617)	(80)
Lease liabilities	21	**(153)**	**–**	(545)	–
Provisions	23	**(172)**	**–**	–	–
Deferred revenue	20	**(560)**	**–**	(253)	–
		(2,395)	**(638)**	(2,415)	(80)
Non-current liabilities					
Financial liabilities	19	**(3,919)**	**(3,392)**	(3,487)	(3,445)
Lease liabilities	21	**(16)**	**–**	(133)	–
Provisions	23	**(40)**	**–**	–	–
Deferred revenue	20	**(44)**	**–**	(146)	–
		(4,019)	**(3,392)**	(3,766)	(3,445)
Total liabilities		**(6,414)**	**(4,030)**	(6,181)	(3,525)
Net assets		**4,480**	**42,389**	3,052	36,604
Capital and reserves					
Share capital	22	**32,244**	**32,244**	30,570	30,570
Share premium	22	**121,145**	**121,145**	117,292	117,292
Reverse acquisition reserve	22	**(77,868)**	**–**	(77,868)	–
Share-based payment reserve	24	**4,916**	**4,916**	4,318	4,318
Merger reserve	25	**(1,242)**	**–**	(1,242)	–
Capital redemption reserve	25	**–**	**4,402**	–	4,402
Accumulated losses	26	**(74,715)**	**(120,318)**	(70,018)	(119,978)
Total equity		**4,480**	**42,389**	3,052	36,604

The Parent Company's result for the year ended 31 July 2022 was a loss of £340,000 (2021: loss of £6,516,000). There was no other comprehensive income in either the current or prior year.

The notes on pages 93 to 119 form an integral part of these financial statements.

The financial statements on pages 89 to 119 were approved by the Board of Directors on 28 October 2022 and signed on its behalf by:

Dr Christopher Richards
Chairman
28 October 2022

Brian Tenner
Chief Executive Officer
28 October 2022

Group and Company cash flow statements

for the year ended 31 July 2022

	Notes	31 July 2022 Group £'000	31 July 2022 Company £'000	31 July 2021 Group £'000	31 July 2021 Company £'000
Loss before tax		**(5,221)**	**(340)**	(5,080)	(6,516)
Adjustments for:					
Net finance expense	8	**450**	**396**	71	6
(Profit)/loss on exchange rate translations		**(211)**	**19**	17	2
Depreciation of tangible fixed assets	11	**105**	**–**	99	–
Depreciation of right of use assets	12	**366**	**–**	408	–
Amortisation of intangible assets	13	**498**	**–**	618	–
Impairment of intangible assets	13	**858**	**–**	623	–
Reversal of impairment		**–**	**(76)**	–	–
Share-based payments	24	**619**	**–**	417	–
Gain on disposal of tangible fixed assets	6	**(36)**	**–**	(48)	–
Changes in working capital:					
(Increase)/decrease in inventories		**(64)**	**–**	30	–
(Increase) in trade and other receivables		**(141)**	**–**	(209)	–
Increase/(decrease) in trade and other payables		**(105)**	**116**	(757)	80
Increase in provisions		**212**	**–**	–	–
Decrease/(Increase) in deferred revenue		**205**	**–**	(453)	–
Cash (outflow)/inflow from operating activities		**(2,465)**	**115**	(4,264)	(6,428)
Research and development tax credit received		**688**	**–**	908	–
Net cash (outflow)/inflow from operating activities		**(1,777)**	**115**	(3,356)	(6,428)
Cash flow from investing activities					
Purchases of tangible fixed assets	11	**(4)**	**–**	(35)	–
Purchases of intangible fixed assets	12	**(114)**	**–**	(357)	–
Proceeds from sale of tangible fixed assets	6	**36**	**–**	48	–
Interest received		**–**	**–**	–	–
Net cash outflow from investing activities		**(82)**	**–**	(344)	–
Cash flow from financing activities					
Proceeds from placing of ordinary share capital		**5,655**	**5,655**	–	–
Proceeds from issue of loan notes		**–**	**–**	3,150	3,150
Costs of financing/placing		**(274)**	**(274)**	(161)	(161)
Payment of lease liabilities (capital)		**(506)**	**–**	(642)	–
Payment of lease liabilities (interest)		**(83)**	**–**	(30)	–
Interest paid		**(3)**	**–**	(4)	–
Net cash inflow from financing activities		**4,789**	**5,381**	2,313	2,989
Increase/(decrease) in cash and cash equivalents		**2,930**	**5,496**	(1,387)	(3,439)
Cash and cash equivalents at the start of the year		**3,813**	**1**	5,170	3,440
Effects of exchange rate changes		**19**	**–**	30	–
Cash and cash equivalents at the end of the year	17	**6,762**	**5,497**	3,813	1

The notes on pages 93 to 119 form an integral part of these financial statements.

Notes to the financial statements

1. Reporting entity

Nanoco Group plc (the "Company"), a public company limited by shares, is on the premium list of the London Stock Exchange. The Company is incorporated and domiciled in England, UK. The registered number is 05067291 and the address of its registered office is Science Centre, The Heath Business and Technical Park, Runcorn, WA7 4QX. The Company is registered in England.

These group financial statements consolidate those of the Company and its subsidiaries (together referred to as the "group" and individually as "group entities") for the year ended 31 July 2022.

The financial statements of Nanoco Group plc and its subsidiaries (the "group") for the year ended 31 July 2022 were authorised for issue by the Board of Directors on 28 October 2022 and the statements of financial position were signed on the Board's behalf by Dr Christopher Richards and Brian Tenner.

The Company has elected to take the exemption under section 408 of the Companies Act 2006 not to present the Parent Company's income statement.

The significant accounting policies adopted by the group are set out in note 3.

2. Basis of preparation

(a) Statement of compliance

The group's and Parent Company's financial statements have been prepared in accordance with international accounting standards in conformity with the requirements of the Companies Act 2006 and UK adopted IFRSs as issued by the International Accounting Standards Board for the year ended 31 July 2022.

(b) Basis of measurement

The Parent Company and group financial statements have been prepared on the historical cost basis, except for the revaluation of financial assets classified as "fair value through other comprehensive income" or "fair value through profit or loss", which are reported in accordance with the accounting policies below.

In order to more fairly represent the cost of sales of the group we have reclassified certain costs from administrative expenses to cost of sales for the comparative period. Total impact of the reclassification is an increase to cost of sales of £124,000 (2021: £134,000). There is no impact on reported loss or net assets of this reclassification.

(c) Going concern

All of the following matters are taken into account by the Directors in forming their assessment of going concern. The group's business activities and market conditions are set out on pages 18 to 21. The principal risks and uncertainties are shown on pages 27 to 29 while the group's financial position is described in the Financial review on pages 24 to 26. Furthermore, note 27 summarises the group's financial risk management objectives, policies and processes. The group funds its day-to-day cash requirements from existing cash reserves.

For the purposes of their going concern assessment and the basis for the preparation of the financial statements, the Directors have reviewed the same trading and cash flow forecasts and sensitivity analyses that were used by the group in the viability assessment, which cover the period to November 2023. The same base case and downside (severe but plausible) sensitivities were also used.

The base case represents the Board's current expectations. Assumptions in the base case are:

→ minimal sales of nanomaterials beyond current contracts - commercial services contracts are based on the existing pipeline of opportunities or agreements already in place;

→ modest demand for commercial production materials in CY23 with a subsequent slow ramp-up;

→ a further extension to the services and supply contract with the European electronics customer;

→ no revenue is assumed from other business lines though some small scale commercial deals are currently under discussion;

→ consolidation of activities on one site in Runcorn to reduce costs with modest staff increases in key areas;

→ small expansion of our self-funded research activities and continued maintenance costs to support our IP portfolio;

→ loan notes are repaid as they fall due in June 2024 through either an equity fundraise or improved commercial opportunities;

→ Board, plc and other costs reflect the current inflationary environment;

→ the group remains a going concern and hence eligible for R&D tax credits; and

→ the installed cost base is capable of supporting significant increases in revenue above those assumed in the base case so there is no immediate requirement for short-term increases or new capital expenditure.

The downside case then flexes those assumptions as follows:

→ a full year delay in small scale commercial production revenues (into CY24); and

→ no new business from other customers once existing active engagements end.

Notes to the financial statements continued

2. Basis of preparation continued

(c) Going concern continued

The extreme downside case then flexes those assumptions further as follows:

→ the engagement with the European electronics customer comes to an end without any commercial production;

→ no revenues other than those already contracted; and

→ the group contracts to become an IP shell to protect the value in the Samsung lawsuit.

All three cases above (base, downside and extreme downside) produce cash flow statements that demonstrate that the group has sufficient cash throughout the period of the forecast to November 2023. Considering the current financial resources and monthly cash costs of the group, with potential for further mitigating action as noted above, and after making appropriate enquiries, the Directors have a reasonable expectation that the group has access to adequate resources to continue in operational existence for the foreseeable future.

Accordingly, they continue to adopt the going concern basis in preparing the consolidated financial statements. The financial statements do not reflect any adjustments that would be required to be made if they were prepared on a basis other than the going concern basis.

(d) Functional and presentational currency

These financial statements are presented in Pounds Sterling, which is the presentational currency of the group and the functional currency of the Company. All financial information presented has been rounded to the nearest thousand.

(e) Use of estimates and judgements

The preparation of financial statements requires management to make estimates and judgements that affect the amounts reported for assets and liabilities as at the reporting date and the amounts reported for revenues and expenses during the year. The nature of estimation means that actual amounts could differ from those estimates. Estimates and judgements used in the preparation of the financial statements are continually reviewed and revised as necessary. While every effort is made to ensure that such estimates and judgements are reasonable, by their nature they are uncertain and, as such, changes in estimates and judgements may have a material impact on the financial statements.

In the process of applying the group's accounting policies, management has made the following estimates and judgements, which have the most significant effect on the amounts recognised in the consolidated financial statements.

Estimates

Equity-settled share-based payments

The group has historically issued LTIPs to incentivise employees. The determination of share-based payment costs requires: the selection of an appropriate valuation method; consideration as to the inputs necessary for the valuation model chosen; and judgement regarding when and if performance conditions will be met. Inputs required for this arise from judgements relating to the future volatility of the share price of Nanoco and comparable companies, the Company's expected dividend yields, risk-free interest rates and expected lives of the options. The Directors draw on a variety of sources to aid in the determination of the appropriate data to use in such calculations. The share-based payment expense is most sensitive to vesting assumptions and to the future volatility of the future share price factor. Further information is included in note 3.

Judgements

Impairment of investment and inter-company receivable

Judgement is required to assess the carrying value of the Company investment and inter-company receivable at each reporting date.

Accounting standards (IAS 36 Impairment of Assets) require investments in subsidiary undertakings (equity and loans) to be carried at the lower of cost or recoverable value. Recoverable value is defined as the higher of fair value less costs of disposal (effectively net sale proceeds) and value in use. Indicators of potential impairment noted in IAS 36 (paragraph 12) include, but are not limited to, situations where the carrying amount of the net assets of the entity is more than its market value and where significant changes with an adverse effect on the entity have taken place during the year.

The Directors consider the fair value of the group to be market value (calculated as market capitalisation at year end) less costs to sell. Given the main trading entity is Nanoco Technologies Limited (owned by Nanoco Tech Limited), this holds the majority of the value. As the group market value was in excess of the book value, no further impairment is proposed.

2. Basis of preparation continued

(e) Use of estimates and judgements continued

Judgements continued

Revenue recognition

Judgement is required in reviewing the terms of development agreements to identify separate components of revenue, if any, that are consistent with the economic substance of the agreement and in turn the period over which development revenue should be recognised. Judgements are required to assess the stage of completion including, as appropriate, whether and when contractual milestones have been achieved. Management judgements are similarly required to determine whether services or rights under licence agreements have been delivered so as to enable licence revenue to be recognised. This matter is further complicated where a contract may have different elements which may result in separate recognition treatments under IFRS 15. Further information is included in note 3(d).

Impairment of intellectual property

As the group has not made a profit to date, the carrying value of these assets may need to be impaired. Impairment exists where the carrying value of an asset exceeds its recoverable amount, which is the higher of its fair value less costs of disposal and its potential value in use. The value in use calculation uses market assumptions and the potential share the Nanoco technology could unlock. The Directors also use available information to assess whether the fair value less costs of disposal of the group's non-current assets, including intellectual property, is less than their carrying amount. Furthermore, during the year another extensive review was undertaken to identify which patents are uncertain to be of value to Nanoco and should be allowed to lapse. As a consequence, patents with a value of £0.9 million (2021: £0.6 million) have been fully impaired in these financial statements. Judgements are based on the information available at each reporting date, which includes the progress with testing and certification and progress on, for example, establishment of commercial arrangements with third parties. The group does not believe that any of its patents in isolation are material to the business. Management has adopted the prudent approach of amortising patent registration costs over a ten-year period, which is substantially shorter than the life of the patent. For external patents acquired the same rule is adopted unless the remaining life of the patent is shorter, in which event the cost of acquisition is amortised over the remaining life of the patent.

Research and development

Careful judgement by the Directors is applied when deciding whether the recognition requirements for development costs have been met. This is necessary as the economic success of any product development is uncertain until such time as technical viability has been proven and commercial supply agreements are likely to be achieved. Judgements are based on the information available at each reporting date which includes the progress with testing and certification and progress on, for example, establishment of commercial arrangements with third parties. In addition, all internal activities related to research and development of new products are continuously monitored by the Directors. Further information is included in note 3.

Deferred tax

The Company recognises deferred tax assets only to the extent that it is probable that future taxable profits, feasible tax planning strategies and deferred tax liabilities will be available against which the tax losses can be utilised. Estimation of the level of future taxable profits is therefore required in order to determine the appropriate carrying value of the deferred tax asset. Given the Company's past losses, plans to continue research and development and uncertainty of its ability to generate future taxable profit, management does not believe that it is more probable than not that the Company can realise its deferred tax assets and, therefore, it has not recognised any amount in the consolidated statements of financial position. Additional information is included in note 9.

3. Significant accounting policies

The accounting policies set out below are consistent with those of the previous financial year and are applied consistently by group entities.

(a) Basis of consolidation

The group financial statements consolidate the financial statements of Nanoco Group plc and the entities it controls (its subsidiaries) drawn up to 31 July each year.

Subsidiaries are all entities over which the group has the power over the investee (i.e. existing rights that give it the current ability to direct the relevant activities of the investee), exposure, or rights, to variable returns from its involvement with the investee and ability to use its power over the investee to affect its returns. All of Nanoco Group plc's subsidiaries are 100% owned. Subsidiaries are fully consolidated from the date control passes.

The acquisition method of accounting is used to account for the acquisition of subsidiaries by the group. The costs of an acquisition are measured as the fair value of the assets given, equity instruments issued and liabilities incurred or assumed at the date of exchange, plus costs directly attributable to the acquisition. Identifiable assets acquired and liabilities and contingent liabilities assumed in a business combination are initially measured at fair value at acquisition date irrespective of the extent of any minority interest. The difference between the cost of acquisition of shares in subsidiaries and the fair value of the identifiable net assets acquired is capitalised as goodwill and reviewed annually for impairment. Any deficiency in the cost of acquisition below the fair value of identifiable net assets acquired (i.e. discount on acquisition) is recognised directly in the consolidated statement of comprehensive income.

Notes to the financial statements continued

3. Significant accounting policies continued

(a) Basis of consolidation continued

In the consolidated financial statements, the assets and liabilities of the foreign operations are translated into Sterling at the exchange rate prevailing at the reporting date. Income and cash flow statement items for group entities with a functional currency other than Sterling are translated into Sterling at monthly average exchange rates, which approximate to the actual rates, for the relevant accounting periods. The exchange differences arising on translation are recognised in other comprehensive income. See note 3(b).

All intra-group transactions, balances and unrealised gains on transactions between group companies are eliminated on consolidation. Subsidiaries' accounting policies are amended where necessary to ensure consistency with the policies adopted by the group.

(b) Foreign currency transactions

Transactions in foreign currencies are initially recorded in the functional currency by applying the spot rate ruling at the date of the transaction. Monetary assets and liabilities denominated in foreign currencies (including those of the group's US subsidiary) are retranslated at the functional currency rate of exchange ruling at the reporting date. All differences are taken to the consolidated statement of comprehensive income.

Non-monetary items that are measured in terms of historical cost in a foreign currency are translated using the exchange rates as at the dates of the initial transactions. Non-monetary items measured at fair value in a foreign currency are translated using the exchange rates at the date when the fair value was determined.

(c) Segmental reporting

An operating segment is a component of an entity that engages in business activities from which it may earn revenues and incur expenses, whose operating results are regularly reviewed by the entity's chief operating decision maker to make decisions about resources to be allocated to the segment and assess its performance, and for which discrete financial information is available. As at the reporting date the Company operated with only a single segment, being the research, development and manufacture of products and services based on high performance nanoparticles.

(d) Revenue recognition

Revenue comprises the fair value of the sale of products and services to external customers, net of value added tax or other sales taxes or duties, rebates, discounts and returns. Revenue is recognised according to the five-step model set out in IFRS 15 as follows:

1. Identify the contract(s) with a customer;
2. Identify the performance obligations in the contract;
3. Determine the transaction price;
4. Allocate the transaction price to the performance obligations in the contract; and
5. Recognise revenue when (or as) the entity satisfied a performance obligation

Products sold

Revenue from the sale of products is recognised at the point of transfer of control, which is generally on shipment or delivery of the product. This is dependent on the delivery terms agreed with the customer. At this stage the group has completed its performance obligations. The supply and delivery of products are not deemed to be separable performance obligations as the customer is obliged to make use of the group's delivery arrangements in most cases.

Rendering of Services

Revenues from development programmes are recognised over time on a cost to cost method whereby cost is used to measure progress and costs are incurred evenly throughout the period.

Royalties and licenses

Licenses grant customers access to the group's technology over a set length of time. Therefore revenue related to the granting of a license is recognised over the same period of time. The length of time to which the license, and therefore the revenue relates, varies by customer and agreement.

(e) Government grants

Government grants are recognised when it is reasonable to expect that the grants will be received and that all related conditions are met, usually on submission of a valid claim for payment.

Government grants of a revenue nature are recognised as other operating income in the consolidated statement of comprehensive income. Government grants of an expense nature are recognised as a credit to administrative expenses in the consolidated statement of comprehensive income.

Government grants relating to capital expenditure are deducted in arriving at the carrying amount of the asset.

3. Significant accounting policies continued

(f) Cost of sales

Cost of sales comprises the materials, duty and freight incurred in the generation of revenue from products sold.

Revenue from royalties and licences, which comprise payments from customers to gain preferential treatment in terms of supply or pricing, does not have an associated cost of sale.

(g) Deferred revenue

Deferred revenue represents advanced consideration received from customers, for which revenue is recognised over time.

(h) Research and development

Research costs are charged in the consolidated statement of comprehensive income as they are incurred. Development costs will be capitalised as intangible assets when it is probable that future economic benefits will flow to the group. Such intangible assets will be amortised on a straight-line basis from the point at which the assets are ready for use over the period of the expected benefit, and will be reviewed for impairment at each reporting date based on the circumstances at the reporting date.

The criteria for recognising expenditure as an asset are:

→ it is technically feasible to complete the product;

→ management intends to complete the product and use or sell it;

→ there is an ability to use or sell the product;

→ it can be demonstrated how the product will generate probable future economic benefits;

→ adequate technical, financial and other resources are available to complete the development, use and sale of the product; and

→ expenditure attributable to the product can be reliably measured.

Development costs are currently charged against income as incurred since the criteria for their recognition as an asset are not met, the exception being the costs of filing intellectual property as these are considered to generate probable future economic benefits and are capitalised as intangible assets (see note 13).

(i) Finance income and expense

Finance income comprises interest income on funds invested and changes in the fair value of financial assets at fair value through the consolidated statement of comprehensive income. Interest income is recognised as interest accrues using the effective interest rate method.

Finance expense comprises interest expense on borrowings. All borrowing costs are recognised using the effective interest method.

(j) Income tax

Income tax expense comprises current and deferred tax. Income tax expense is recognised in the consolidated statement of comprehensive income except to the extent that it relates to items recognised directly in equity or in other comprehensive income.

Current income tax assets (including research and development income tax credit) and liabilities for the current and prior periods are measured at the amount expected to be recovered from, or paid to, the tax authorities. The tax rates and tax laws used to compute the amount are those that are enacted or substantively enacted by the reporting date.

Deferred income tax is recognised on all temporary differences arising between the tax bases of assets and liabilities and their carrying amounts in the financial statements with the following exceptions:

→ where the temporary difference arises from the initial recognition of goodwill or of an asset or liability in a transaction that is not a business combination that at the time of the transaction affects neither accounting nor taxable profit or loss; and

→ in respect of taxable temporary differences associated with investments in subsidiaries where the timing of the reversal of the temporary differences can be controlled and it is probable that the temporary differences will not reverse in the foreseeable future.

Deferred income tax assets and liabilities are measured on an undiscounted basis using the tax rates and tax laws that have been enacted or substantively enacted by the balance sheet date and which are expected to apply when the related deferred tax asset is realised or the deferred tax liability is settled.

Deferred income tax assets are recognised to the extent that it is probable that future taxable profits will be available against which differences can be utilised. An asset is not recognised to the extent that the transfer of economic benefits in the future is uncertain.

Deferred income tax assets and liabilities are offset only if a legally enforceable right exists to set off current tax assets against current tax liabilities, the deferred income taxes relate to the same taxation authority and that authority permits the group to make a single payment.

Notes to the financial statements continued

3. Significant accounting policies continued

(k) Property, plant and equipment

Property, plant and equipment assets are recognised initially at cost. After initial recognition, these assets are carried at cost less any accumulated depreciation and any accumulated impairment losses. Cost comprises the aggregate amount paid and the fair value of any other consideration given to acquire the asset and includes costs directly attributable to making the asset capable of operating as intended.

Depreciation is computed by allocating the depreciable amount of an asset on a systematic basis over its useful life and is applied separately to each identifiable component.

The following bases and rates are used to depreciate classes of assets:

Laboratory infrastructure	–	straight line over remainder of lease period (two to ten years)
Fixtures and fittings	–	straight line over five years
Office equipment	–	straight line over three years
Plant and machinery	–	straight line over five years

The carrying values of tangible fixed assets are reviewed for impairment if events or changes in circumstances indicate that the carrying value may not be recoverable, and are written down immediately to their recoverable amount. Useful lives and residual values are reviewed annually and where adjustments are required these are made prospectively.

A tangible fixed asset item is derecognised on disposal or when no future economic benefits are expected to arise from the continued use of the asset. Any gain or loss arising on the derecognition of the asset is included in the consolidated statement of comprehensive income in the period of derecognition.

Assets under construction, which principally relate to leasehold improvements and plant and machinery, are not depreciated until such time as they are available for use. If there are indications of impairment in the carrying value, then the recoverable amount is estimated and compared to the carrying amount. The recoverable amount is determined as the value that will ultimately be capitalised as an asset, based upon IAS 16 recognition and capitalisation criteria.

(l) Intangible assets

Intangible assets acquired either as part of a business combination or from contractual or other legal rights are recognised separately from goodwill provided they are separable and their fair value can be measured reliably. This includes the costs associated with acquiring and registering patents in respect of intellectual property rights.

Where consideration for the purchase of an intangible asset includes contingent consideration, the fair value of the contingent consideration is included in the cost of the asset.

Where intangible assets recognised have finite lives, after initial recognition their carrying value is amortised on a straight-line basis over those lives. The nature of those intangibles recognised and their estimated useful lives are as follows:

Patents	–	straight line over ten years

(m) Impairment of assets

At each reporting date the group reviews the carrying value of its plant, equipment and intangible assets to determine whether there is an indication that these assets have suffered an impairment loss. If any such indication exists, or when annual impairment testing for an asset is required, the Company makes an assessment of the asset's recoverable amount.

An asset's recoverable amount is the higher of an asset's or cash-generating unit's fair value less costs to sell and its value in use and is determined for an individual asset, unless the asset does not generate cash inflows that are largely independent of those from other assets or groups of assets. Where the carrying value of an asset exceeds its recoverable amount, the asset is considered impaired and is written down to its recoverable amount. In assessing value in use, the group review the potential markets for the asset, and consider the possibility of short to medium term commercial success being derived from the asset. In determining fair value less costs of disposal, an appropriate valuation model is used and these calculations are corroborated by valuation multiples or other available fair value indicators. Impairment losses on continuing operations are recognised in the consolidated statement of comprehensive income in those expense categories consistent with the function of the impaired asset.

An assessment is made at each reporting date as to whether there is any indication that previously recognised impairment losses may no longer exist or may have decreased. If such indication exists, the recoverable amount is estimated. A previously recognised impairment loss is reversed only if there has been a change in the assumptions used to determine the asset's recoverable amount since the last impairment loss was recognised. If that is the case the carrying amount of the asset is increased to its recoverable amount. That increased amount cannot exceed the carrying amount that would have been determined, net of depreciation, had no impairment loss been recognised for the asset in prior years. Such reversal is recognised in the consolidated statement of comprehensive income unless the asset is carried at a revalued amount, in which case the reversal is treated as a valuation increase. After such a reversal the depreciation charge is adjusted in future periods to allocate the asset's revised carrying amount, less any residual value, on a systematic basis over its remaining useful life.

Impairment charges have been posted during the year in relation to intangible assets. See the relevant note for more information.

3. Significant accounting policies continued

(n) Investments in subsidiaries

Investments in subsidiaries are stated in the Company statement of financial position at cost less provision for any impairment.

(o) Inventories

Inventories are stated at the lower of cost and net realisable value. Cost based on latest contractual prices includes all costs incurred in bringing each product to its present location and condition. Net realisable value is based on estimated selling price less any further costs expected to be incurred to disposal. Provision is made for slow-moving or obsolete items.

(p) Financial instruments

Financial assets and financial liabilities are recognised when the group becomes party to the contractual provisions of the relevant instrument and derecognised when it ceases to be party to such provisions. Such assets and liabilities are classified as current if they are expected to be realised or settled within twelve months after the balance sheet date. Financial assets and liabilities are initially recognised at amortised cost and subsequently measured at amortised cost including directly attributable transaction costs.

The group has the following categories of financial assets and liabilities:

Receivables

(i) Trade and other receivables

Trade receivables, which generally have 30 to 60-day terms, are recognised and carried at the lower of their original invoiced value and recoverable amount. The time value of money is not material.

For trade receivables and contract assets, the group applies the IFRS 9 simplified approach in calculating ECLs. Therefore, the group does not track changes in credit risk, but instead recognises a loss allowance based on lifetime ECLs at each reporting date. The group has established a provision matrix that is based on shared credit risk characteristics, its historical credit loss experience and days past due, adjusted for forward-looking factors specific to the debtors and the economic environment. The amount of the provision is recognised in the balance sheet within trade receivables. Movements in the provision are recognised in the profit and loss account in administrative expenses.

(ii) Cash, cash equivalents and short-term investments

Cash and cash equivalents comprise cash at hand and deposits with maturities of three months or less. Short-term investments comprise deposits with maturities of more than three months, but no greater than twelve months.

Financial liabilities at amortised cost

(i) Trade and other payables

Trade and other payables are non-interest bearing and are initially recognised at amortised cost. They are subsequently measured at amortised cost using the effective interest rate method.

(ii) Loans and convertible loan notes

Obligations for loans and borrowings are measured initially at fair value and subsequently interest-bearing loans are measured at amortised cost. Convertible loan notes are presented as financial liabilities as rights of the note holder to convert the loan notes into equity are within the control of the Company.

(q) Share capital

Proceeds on issue of shares are included in shareholders' equity, net of transaction costs. The carrying amount is not remeasured in subsequent years.

(r) Share-based payments

Equity-settled share-based payment transactions are measured with reference to the fair value at the date of grant, recognised on a straight-line basis over the vesting period, based on the Company's estimate of shares that will eventually vest. Fair value is measured using a suitable option pricing model.

At each reporting date before vesting, the cumulative expense is calculated, representing the extent to which the vesting period has expired and management's best estimate of the achievement or otherwise of non-market conditions and the number of equity instruments that will ultimately vest. The movement in cumulative expense since the previous reporting date is recognised in the consolidated statement of comprehensive income, with a corresponding entry in equity.

Where the terms of an equity-settled award are modified or a new award is designated as replacing a cancelled or settled award, the cost based on the original award terms continues to be recognised over the original vesting period. In addition, an expense is recognised over the remainder of the new vesting period for the incremental fair value of any modification, based on the difference between the fair value of the original award and the fair value of the modified award, both as measured on the date of the modification. No reduction is recognised if this difference is negative.

Where awards are granted to the employees of the subsidiary company, the fair value of the awards at grant date is recorded in the Company's financial statements as an increase in the value of the investment with a corresponding increase in equity via the share-based payment reserve.

Notes to the financial statements continued

3. Significant accounting policies continued

(s) Defined contribution pension scheme

The group operates a defined contribution pension scheme. The assets of the scheme are held separately from those of the Company in an independently administered fund. The amounts charged against profits represent the contributions payable to the scheme in respect of the accounting period.

(t) Provisions

Provisions are recognised when the group has a present obligation (legal or constructive) as a result of a past event, it is probable that an outflow of resources embodying economic benefits will be required to settle the obligation and a reliable estimate can be made of the amount of the obligation. Provision is not made for future operating losses. Provisions are discounted where the impact is deemed to be material.

(u) Exceptional costs

Items of income and expenditure which are material and non-recurring are presented separately in the consolidated statement of comprehensive income. The separate reporting of exceptional items helps to provide an indication of the underlying performance of the group and hence allows the user of the accounts a fuller understanding of that performance.

(v) Contingent assets and liabilities

A contingent asset is a possible asset that arises from past events and whose existence will be confirmed only by the occurrence or non-occurrence of one or more uncertain future events not wholly within the control of the group. Contingent assets are not recognised but are disclosed in the notes to the financial statements when an inflow of economic benefits is probable.

Contingent liabilities are possible obligations that arise from past events and whose existence will be confirmed only by the occurrence of one or more uncertain future events not wholly within the control of Nanoco. Additionally, contingent liabilities may be present obligations that arise from past events but which are not recognised because it is not probable that an outflow of resources will be required to settle the obligation or the amount of the obligation cannot be measured with sufficient reliability. Contingent liabilities are not recognised in the consolidated statement of financial position but are disclosed and explained in the notes.

(w) IFRS 16 Leases

IFRS 16 sets out the principles for the recognition, measurement, presentation and disclosure of leases for both the lessee and the lessor. It eliminates the lease clarification of leases as either operating leases or financial leases and introduces a single lease accounting model requiring lessees to recognise a lease liability reflecting the future lease payments and a right of use asset for lease contracts. The group has applied the modified retrospective transition approach, with recognition of transitional adjustments on the date of initial application (1 August 2019), without restatement of comparative figures.

Lease payments for low value or short-term leases where the group has elected not to recognise a right of use asset and lease liability are charged as an expense on a straight-line basis.

At the date of commencement of property leases the group determines the lease term to be the full term of the lease, assuming that any option to break or extend is not likely to be exercised. Leases are regularly reviewed and will be revalued if it becomes likely that a break clause or option to extend will be exercised. The weighted average incremental borrowing rate applied at the date of transition was 3.75%. For new leases entered into in the year ended 31 June 2022, the weighted average incremental borrowing rate applied was 4.25%.

The group recognises a right of use asset at the lease commencement date. The right of use asset is measured at its carrying amount as if IFRS 16 had been applied since the commencement date, discounted using the lessee's incremental rate at the date of initial application. Subsequent to measurement, right of use assets are amortised on a straight-line basis over the remaining term of the lease or over the remaining economic life of the asset if assessed to be shorter.

The lease liabilities are measured at the present value of the remaining lease payments, discounted using the group's incremental borrowing rate as at 1 August 2019. The group's incremental borrowing rate is the rate at which a similar borrowing could be obtained over a similar term in a similar economic environment. Judgement is required to determine an approximation with consideration given to the Bank of England base rates adjusted by an indicative credit premium and lease specific adjustment. Subsequently, the lease liability is increased by the interest cost on the lease liability and decreased by the lease payments made. It is remeasured if there is a modification, a change in lease term or a change in the fixed lease payment.

(x) New accounting standards and interpretations

The following standards have been issued but have not been applied by the group in these financial statements. These amendments to standards and interpretations had no significant impact on the financial statements:

IFRS amendments effective from 1 January 2022 (UK adopted and EU endorsed)

→ IAS 16 Amendment: Property, Plant and Equipment: Proceeds Before Intended Use

→ IAS 37 Amendment: Onerous Contracts: Cost of Fulfilling a Contract

→ IFRS 3 Amendment: Reference to the Conceptual Framework

→ Annual Improvements Cycle 2018 to 2020

3. Significant accounting policies continued

(x) New accounting standards and interpretations continued

FRS 101 amendments effective from 1 January 2022:

→ FRS 101 Amendment: 2020/21 Cycle – Disclosure Exemption from IAS 16

The following standards and amendments to standards have been issued but are not effective for the financial year beginning 1 August 2021 and have not been early adopted:

IFRS standards effective from 1 January 2023 (EU endorsed and UK adopted)

- IFRS 17 Insurance Contracts and IFRS 17 Amendment: Amendments to IFRS 17

IFRS standards effective from 1 January 2023 (EU endorsed, not UK adopted)

- IAS 1 Amendment: Disclosure of Accounting Policies
- IAS 8 Amendment: Definition of Accounting Estimates

IFRS standards effective from 1 January 2023 (not UK adopted, nor EU endorsed)

- IAS 1 Amendment: Classification of Liabilities as Current or Non-current
- IAS 12 Amendment: Deferred Tax Related to Assets and Liabilities Arising from a Single Transaction
- IFRS 17 Amendment: Initial Application of IFRS 17 and IFRS 9 – Comparative Information

FRS 101 amendments effective from 1 January 2023:

- FRS 101 Reduced Disclosure Framework: Prohibiting Insurers to Apply FRS 101 when IFRS 17 Becomes Effective

The amendments to standards and interpretations noted above are expected to have no significant impact on the financial statements.

4. Segmental information

Operating segments

At 31 July 2022 and 2021 the group operated as one segment, being the research, development and manufacture of products and services based on high performance nanoparticles. This is the level at which operating results are reviewed by the chief operating decision maker (i.e. the Board) to make decisions about resources, and for which financial information is available. All revenues have been generated from continuing operations and are from external customers.

	31 July 2022 £'000	31 July 2021 £'000
Analysis of revenue		
Products sold	**782**	685
Rendering of services	**1,582**	1,303
Royalties and licences	**103**	103
	2,467	2,091

There was one material customer who generated revenue of £2,089,000 (2021: one material customer amounting to £1,590,000).

Revenue from the provision of services transferred over time totalled £1,685,000 (2021: £1,406,000). Revenue from the sale of goods transferred at a point in time amounted to £782,000 (2021: £685,000).

The group operates in four main geographic areas, although all are managed in the UK. The group's revenue per geographical segment based on the customer's location is as follows:

Notes to the financial statements continued

4. Segmental information continued

Operating segments continued

	31 July 2022 £'000	31 July 2021 £'000
Revenue		
USA	**27**	20
Japan	**244**	80
UK	**1**	27
Singapore	**3**	–
Holland	**1,474**	1,031
France	**348**	372
Taiwan	**351**	291
Canada	**19**	15
Saudi Arabia	**–**	255
	2,467	2,091

All of the group's assets are held in the UK and all of its capital expenditure arises in the UK. The loss before taxation and attributable to the single segment was £5,221,000 (2021: £5,080,000).

5. Other operating income

	31 July 2022 £'000	31 July 2021 £'000
Government grants	**361**	183

Grants of £361,000 (2021: £183,000) are included in Other Operating Income. There are no unfulfilled conditions or other contingencies attached to these grants.

6. Operating loss

	31 July 2022 £'000	31 July 2021 £'000
Operating loss is stated after charging/(crediting):		
Depreciation of tangible fixed assets (see note 11)	**105**	99
Depreciation of right of use assets (see note 12)	**349**	408
(Profit) on disposal of assets	**(36)**	(48)
Amortisation of intangible assets (see note 13)	**498**	618
Impairment of intangible assets (see note 13)	**859**	623
Lease costs of low value/short life lease obligations	**11**	10
Staff costs (see note 7)	**2,816**	3,150
Government aid (Coronavirus Job Retention Scheme)	**–**	(285)
Foreign exchange (gains)/losses	**(192)**	47
Research and development expense[1]	**1,770**	2,150
Share-based payments	**619**	417
Employers tax on Share-based payments	**264**	75

1 Included within research and development expense are staff costs totalling £1,439,000 (2021: £1,700,000) also included in note 7.

6. Operating loss continued

Auditors' remuneration

	31 July 2022 £'000	31 July 2021 £'000
Audit services:		
– Fees payable to Company auditors for the audit of the Parent and the consolidated accounts	**41**	135
– Auditing the accounts of subsidiaries pursuant to legislation	**44**	35
Total auditors' remuneration	**85**	170

7. Staff costs

The group's costs for employees, including Directors, during the year were as follows:

	31 July 2022 £'000	31 July 2021 £'000
Wages and salaries	**2,241**	2,705
Social security costs	**490**	329
Other pension costs	**85**	116
	2,816	3,150
Share-based payments	**619**	417
Government aid (Coronavirus Job Retention Scheme)	**–**	(285)
	3,435	3,282
Directors' remuneration (including benefits in kind) included in the aggregate remuneration above comprised:		
Emoluments for qualifying services	**797**	708

Emoluments for Directors of the group (excluding social security costs and long-term incentives, but including benefits in kind) disclosed above include £265,000 paid to the highest paid Director (2021: £298,000). Details of the compensation of key management personnel are described in note 29.

The group made contributions to money purchase pension schemes for two current Directors (2021: two).

Aggregate gains made by Directors during the year following the exercise of share options were £nil (2021: £nil).

An analysis of the highest paid Director's remuneration is included in the Directors' remuneration report.

The monthly average number of employees during the year (including Directors) was as follows:

Group	**31 July 2022 Number**	31 July 2021 Number
Directors	**7**	5
Laboratory and administrative staff	**35**	46
	42	51

8. Finance income and expense

Group	**31 July 2022 £'000**	31 July 2021 £'000
Finance income		
Interest receivable	**–**	–
Finance expense		
Loan note interest	**(433)**	(36)
Unwinding interest on lease liabilities	**(14)**	(31)
Other interest payable	**(3)**	(4)
	(450)	(71)

Notes to the financial statements continued

9. Taxation

The tax credit is made up as follows:

Group	31 July 2022 £'000	31 July 2021 £'000
Current income tax		
Research and development income tax credit receivable	**(524)**	(689)
Adjustment in respect of prior years	**-**	3
	(524)	(686)
Deferred tax		
Charge for the year	**-**	–
Total income tax credit	**(524)**	(686)

The income tax receivable shown in the statement of financial position is the R&D tax credit receivable reported above.

The tax assessed for the year varies from the standard rate of corporation tax as explained below:

Group	31 July 2022 £'000	31 July 2021 £'000
Loss before taxation	**(5,221)**	(5,080)
Tax at standard rate of 19% (2021: 19%)	**(992)**	(965)
Effects of:		
Expenses not deductible for tax purposes	**(15)**	–
Capital allowances in excess of depreciation	**16**	16
Additional deduction for research and development expenditure	**(365)**	(514)
Surrender of research and development relief for repayable tax credit	**640**	875
Research and development tax credit receivable	**(524)**	(684)
Share options exercised (CTA 2009 Pt 12 deduction)	**–**	–
Losses and share-based payment charges carried forward not recognised in deferred tax	**716**	583
Adjustment in respect of prior years	**-**	3
Tax credit in income statement	**(524)**	(686)

The group has accumulated losses available to carry forward against future trading profits of £40.5 million (2021: £37.4 million).

Deferred tax liabilities/(assets) provided/(recognised) at a standard rate of 19% (2021: 19%) are as follows:

	31 July 2022 £'000	31 July 2021 £'000
Accelerated capital allowances	**–**	–
Tax losses	**–**	–
	–	–

The group also has deferred tax assets, measured at a standard rate of 25% (2021: 19%), in respect of share-based payments and tax losses of £10,246,000 (2021: £7,105,000 loss) which have not been recognised as an asset as it is not yet probable that future taxable profits will be available against which the assets can be utilised.

Following the Chancellor's budget announcement on 23 September 2022, the planned increase in the corporation tax rate to 25% is not scheduled to go ahead. Given that this change had not been substantially enacted at the balance sheet date, deferred tax has not been updated and remains in line with the above.

10. Earnings per share

Group	31 July 2022 £'000	31 July 2021 £'000
Loss for the financial year attributable to equity shareholders	**(4,697)**	(4,395)
Share-based payments	**619**	417
Loss for the financial year before share-based payments	**(4,078)**	(3,978)
Weighted average number of shares		
Ordinary shares in issue	**308,610,928**	305,699,102
Adjusted loss per share before share-based payments (pence)	**(1.32)**	(1.30)
Basic loss per share (pence)	**(1.52)**	(1.44)

Diluted loss per share has not been presented above as the effect of share options issued is anti-dilutive.

11. Tangible fixed assets

Group	Laboratory infrastructure £'000	Office equipment, fixtures and fittings £'000	Plant and machinery £'000	Total £'000
Cost				
At 1 August 2020	3,403	555	8,467	12,425
Additions	–	–	35	35
Disposals	(7)	(89)	(498)	(594)
Transfers	(16)	–	16	–
At 31 July 2021	3,380	466	8,020	11,866
Additions	–	–	4	4
Disposals	(42)	(67)	(796)	(905)
At 31 July 2022	**3,338**	**399**	**7,228**	**10,965**
Accumulated depreciation				
At 1 August 2020	3,385	476	8,301	12,162
Charged during the year	2	45	52	99
Disposals	(7)	(89)	(498)	(594)
At 31 July 2021	3,380	432	7,855	11,667
Charged during the year	–	23	82	105
Disposals	(42)	(67)	(796)	(905)
At 31 July 2022	**3,338**	**388**	**7,141**	**10,867**
Net book value				
At 31 July 2022	**–**	**11**	**87**	**98**
At 31 July 2021	–	34	165	199

The aggregate original cost of tangible assets now fully depreciated but considered to be still in use is £10,668,000 (2021: £11,282,000).

Capital commitments

At 31 July 2022, the group had capital commitments amounting to £nil in respect of orders placed for capital expenditure (2021: £nil).

Notes to the financial statements continued

12. Right of use assets

Right of use assets	Total £'000
Cost	
At 1 August 2021	1,253
Additions	65
Remeasurement	18
Disposals	(443)
At 31 July 2022	**893**
Accumulated depreciation	
At 1 August 2021	913
Charged during the year	349
Remeasurement	18
Disposals	(443)
At 31 July 2022	**837**
Net book value	
At 31 July 2022	**56**
At 1 August 2021	340

Lease liabilities	Total £'000
Opening liabilities at 1 August 2021	(678)
Additions	(65)
Lease payments	587
Interest charge	(13)
Closing liabilities at 31 July 2022	**(169)**

The group has several lease contracts that include extension and termination options. These options are negotiated by management to provide flexibility in managing the leased-asset portfolio and align with the group's business needs. Management exercises significant judgement in determining whether these extension and termination options are reasonably certain to be exercised.

Set out below are the undiscounted potential future rental payments related to periods following the exercise date of extension and termination options that are not included in the lease term:

31 July 2022	Within five years £'000	More than five years £'000	Total £'000
Termination options expected to be exercised	17	–	17
Termination options expected not to be exercised	2,493	–	2,493
Total	**2,510**	**–**	**2,510**

31 July 2021	Within five years £'000	More than five years £'000	Total £'000
Termination options expected to be exercised	137	–	137
Termination options expected not to be exercised	429	–	429
Total	**566**	**–**	**566**

Capital commitments

At 31 July 2022, the group had capital commitments amounting to £2,119,000 in respect of new leases (2021: £nil).

13. Intangible assets

Group	Patents £'000
Cost	
At 1 August 2020	7,311
Additions	357
At 31 July 2021	7,668
Additions	115
Disposals	(3,004)
At 31 July 2022	**4,779**
Accumulated amortisation	
At 1 August 2020	3,569
Charged during the year	618
Impairment charge	623
At 31 July 2021	4,810
Charged during the year	498
Impairment charge	859
Disposals	(3,004)
At 31 July 2022	**3,163**
Net book value	
At 31 July 2022	**1,616**
At 31 July 2021	2,858

Contingent consideration of $150,000 is payable in respect of a purchase of patents made during a previous period. The amount is payable if the group reaches a revenue target in a future reporting period.

Intangible assets are amortised on a straight-line basis over ten years. Amortisation provided during the period is recognised in administrative expenses. The group does not believe that any of its patents in isolation are material to the business. The aggregate original cost of intangible assets now fully depreciated but considered to be still in use is £1,988,000 (2021: £1,026,000).

The group continues to undertake annual reviews to identify patents which are deemed insufficiently certain to recover their carrying value and should therefore be allowed to lapse. As a consequence, patents with a value of £859,000 (2021: £623,000) have been fully impaired in these financial statements. The impairment charge is recognised within administrative expenses.

Notes to the financial statements continued

14. Investment in subsidiaries

Company	Shares £'000	Share impairment £'000	Loans £'000	Loan impairment £'000	Total £'000
At 1 August 2020	63,235	(24,006)	24,659	(24,175)	39,713
Increase in respect of share-based payments	–	–	417	–	417
Cash transfer	–	–	(2)	–	(2)
At 31 July 2021	63,235	(24,006)	25,074	(24,175)	40,128
Increase in respect of share-based payments	–	–	619	–	619
At 31 July 2022	**63,235**	**(24,006)**	**25,693**	**(24,175)**	**40,747**
By subsidiary					
Nanoco Tech Limited	63,235	(24,006)	–	–	39,229
Nanoco Life Sciences Limited	–	–	20,286	(20,286)	–
Nanoco Technologies Limited	–	–	5,407	(3,889)	1,518
At 31 July 2022	**63,235**	**(24,006)**	**25,693**	**(24,175)**	**40,747**

Accounting standards (IAS 36 Impairment of Assets) require investments in subsidiary undertakings (equity and loans) to be carried at the lower of cost or recoverable value. Recoverable value is defined as the higher of fair value less costs of disposal (effectively net sale proceeds) and value in use. Indicators of potential impairment noted in IAS 36 (para 12) include, but are not limited to, situations where the carrying amount of the net assets of the entity is more than its market capitalisation (as was the case at the prior year end and continues to be so at the date of these financial statements) and where significant changes with an adverse effect on the entity have taken place during the period.

As set out in the viability statement, the Board has considered a number of scenarios, being base and downside cases. Given the uncertainty and risk over future income streams, and the associated potential impact on the discount rate to be used in the discounted cash flow, the Board has concluded that the appropriate valuation basis to use at this time for the total investments by Nanoco plc in Nanoco Technologies Limited (loans and equity as disclosed above and the short-term loan as disclosed in note 19) should be fair value rather than value in use.

Consistent with IAS 36 and the indicator of impairment noted above in respect of net assets exceeding market capitalisation, the Directors have used the Company's market capitalisation as at 31 July 2022 as its fair value less costs of disposal. While this is higher than in the prior year, the Directors do not believe that a sufficiently robust period of share price appreciation has occurred as yet to merit an upwards revision in the value of the investment, which has therefore been left unchanged.

The investment balance with Nanoco Technologies Limited arises due to the recharge for share-based payments. There is no immediate intention for this to be repaid.

Loans to subsidiary undertakings carry no interest. Further information in relation to these loans is given in note 27.

Subsidiary undertakings	Country of incorporation	Principal activity	Share of issued ordinary share capital 31 July 2022	Share of issued ordinary share capital 31 July 2021
Nanoco Life Sciences Limited	England and Wales	Research and development	**100%**	100%
Nanoco Tech Limited	England and Wales	Holding company	**100%**	100%
Nanoco Technologies Limited[1]	England and Wales	Manufacture and development of nanoparticles	**100%**	100%
Nanoco 2D Materials Limited	England and Wales	Research and development	**100%**	100%
Nanoco US Inc.[2]	USA	Management services	**100%**	100%

All subsidiaries incorporated in England and Wales are registered at Science Centre, The Heath Business and Technical Park, Runcorn, WA7 4QX. Nanoco US Inc. is registered at 33 Bradford Street, Concord, MA 01742.

With the exception of the two companies footnoted below all other shareholdings are owned by Nanoco Group plc.

1 Share capital is owned by Nanoco Tech Limited.

2 Nanoco US Inc. is a wholly owned subsidiary of Nanoco Tech Limited. It was formed in July 2013 primarily in order to provide the services of US-located staff to the rest of the group.

15. Inventories

	31 July 2022 Group £'000	31 July 2022 Company £'000	31 July 2021 Group £'000	31 July 2021 Company £'000
Raw materials and consumables	**174**	**–**	110	–

A total of £296,000 (2021: £204,000) was included in cost of sales with respect to the cost of inventory expensed during the year. Inventories are stated net of an allowance of £126,000 (2021: £136,000) in respect of excess or slow-moving items. Movement in the allowance was due to utilisation in the year.

16. Trade and other receivables

.	31 July 2022 Group £'000	31 July 2022 Company £'000	31 July 2021 Group £'000	31 July 2021 Company £'000
Trade receivables	**975**	**–**	858	–
Prepayments and accrued income	**391**	**29**	212	–
Inter-company short-term loan to subsidiary	**–**	**66,813**	–	66,889
Less impairment provision	**–**	**(66,813)**	–	(66,889)
Other receivables	**298**	**146**	157	–
	1,664	**175**	1,227	–

The impairment of the short-term loan is explained in note 14. The quantum of this provision will be reviewed at each reporting date.

Trade receivables are non-interest bearing and are generally due and paid within 30 to 60 days. The Directors consider that the carrying amount of trade and other receivables approximates to their fair value. However, an expected credit loss of £10,000 (2021: £nil) has been recognised at the year end.

Other receivables include an amount of £146,000 (2021: £nil) relating to consideration due on shares awarded as part of the deferred bonus plan.

Trade receivables are denominated in the following currency:

	31 July 2022 Group £'000	31 July 2022 Company £'000	31 July 2021 Group £'000	31 July 2021 Company £'000
US Dollars	**963**	**–**	782	–
Sterling	**12**	**–**	76	–
	975	**–**	858	–

At 31 July the ageing analysis of trade receivables was as follows:

	Not yet due £'000	Due £'000	Past due 90 days to 120 days £'000	Past due > 120 £'000	Total £'000
2022	**497**	**477**	**1**	**–**	**975**
2021	253	605	–	–	858

17. Cash and cash equivalents

	31 July 2022 Group £'000	31 July 2022 Company £'000	31 July 2021 Group £'000	31 July 2021 Company £'000
Cash and cash equivalents	**6,762**	**5,497**	3,813	1

Under IAS 7, cash held on long-term deposits (being deposits with original maturity of greater than three months and no more than twelve months) that cannot readily be converted into cash must be classified as a short-term investment. There were no such deposits at 31 July 2022 (2021: none).

An analysis of cash, cash equivalents and deposits by denominated currency is given in note 27.

Notes to the financial statements continued

18. Trade and other payables

	31 July 2022 Group £'000	31 July 2022 Company £'000	31 July 2021 Group £'000	31 July 2021 Company £'000
Current				
Trade payables	**622**	**–**	677	–
Other payables	**113**	**–**	63	–
Accruals	**775**	**–**	877	80
Intercompany payable	**–**	**638**	-	-
	1,510	**638**	1,617	80

The Directors consider that the carrying amount of trade and other payables approximates to their fair value. The average credit period taken is 46 days (2021: 39 days). The intercompany balance of £450,000 has been reclassified from non-current to current in the year, reflecting the fact it is repayable on demand. Interest is not charged on inter-company loans (2021: no interest).

19. Financial liabilities

	31 July 2022 Group £'000	31 July 2022 Company £'000	31 July 2021 Group £'000	31 July 2021 Company £'000
Non-current				
Long-term loan from subsidiary	**–**	**–**	–	450
Convertible Series A loan note 2028	**400**	**–**	400	–
Accrued interest	**127**	**–**	92	–
Loan notes (net of costs)	**2,989**	**2,989**	2,989	2,989
Accrued interest on loan notes	**403**	**403**	6	6
	3,919	**3,392**	3,487	3,445

The loan note issued by Nanoco 2D Materials Limited is unsecured, bears a fixed interest at 6.5% p.a. and is fully repayable with accrued interest in 2028 unless options to convert into shares of that company have been exercised. The note holders have a right to convert the loan note into shares of the subsidiary in certain circumstances but these are within the control of the Company.

During the prior year, there was a non-dilutive loan note subscription with our two major shareholders, raising net proceeds before fees (£161,000) of £3.15 million on a loan note price of £4.50 million. The loan notes are unsecured and have a nominal value of £1 each, and an arrangement fee of 1.4% of the nominal amount and are repayable three years from completion, which was 26 July 2021. The subscription price of 70 pence represents a discount to the nominal value of £1 equivalent to 12% interest per annum. The Company may redeem the loan notes at any time prior to their maturity at 80% of nominal value during the first year of the term, 90% at any time in year two, and 100% at any time in year three. In the event of a successful outcome to the Samsung litigation or a change of control of the Company, the loan note holders are entitled to a success bonus of 105% of the nominal value of the loan notes subscribed. There have been no changes in liabilities arising from financing activities other than described in this note.

	Group £'000	Company £'000
Movement in loans		
At 1 August 2020	462	450
New loan notes issued (net of fees)	2,989	2,989
Accrued interest on loan note	6	6
Interest on convertible loan	30	–
At 31 July 2021	3,487	3,445
Accrued interest on loan note	396	396
Reclassification to current liabilities	–	(450)
Interest on convertible loan	36	–
At 31 July 2022	**3,919**	**3,392**

20. Deferred revenue

	31 July 2022 Group £'000	31 July 2022 Company £'000	31 July 2021 Group £'000	31 July 2021 Company £'000
Current				
Upfront licence fees	**103**	**–**	103	–
Milestone payments	**457**	**–**	150	–
	560	**–**	253	–
Non-current				
Upfront licence fees	**44**	**–**	146	–
	604	**–**	399	–

Deferred revenue arises under IFRS where upfront licence fees are accounted for on a straight-line basis over the initial term of the contract or where performance criteria have not been satisfied in the accounting period.

	2022 £'000	2021 £'000
Opening deferred revenue	**399**	852
Revenue booked current year	**(1,620)**	(1,415)
Revenue deferred	**1,825**	962
Closing deferred revenue	**604**	399

21. Lease liabilities

	31 July 2022 Group £'000	31 July 2022 Company £'000	31 July 2021 Group £'000	31 July 2021 Company £'000
Current				
Property leases	**153**	**–**	545	–
Non-current				
Property leases	**16**	**–**	133	–

22. Issued equity capital

On 13 June 2022, 15,284,340 shares were issued at 37.0 pence each.

Group	Number	Share capital £'000	Share premium £'000	Reverse acquisition reserve £'000	Total £'000
Allotted, called up and fully paid ordinary shares of 10p					
At 1 August 2020	305,699,102	30,570	117,292	(77,868)	69,994
At 31 July 2021	305,699,102	30,570	117,292	(77,868)	69,994
Shares issued on placement	15,284,340	1,528	3,853	–	5,381
Shares issued on exercise of options	1,462,302	146	–	–	146
At 31 July 2022	**322,445,744**	**32,244**	**121,145**	**(77,868)**	**75,521**

The balances classified as share capital and share premium include the total net proceeds (nominal value and share premium respectively) on issue of the Company's equity share capital, comprising ordinary shares.

The retained loss and other equity balances recognised in the group financial statements reflect the consolidated retained loss and other equity balances of Nanoco Tech Limited immediately before the business combination which was reported in the year ended 31 July 2009. The consolidated results for the period from 1 August 2008 to the date of the acquisition by the Company are those of Nanoco Tech Limited. However, the equity structure appearing in the group financial statements reflects the equity structure of the legal parent, including the equity instruments issued under the share-for-share exchange to effect the transaction. The effect of using the equity structure of the legal parent gives rise to an adjustment to the group's issued equity capital in the form of a reverse acquisition reserve.

Notes to the financial statements continued

23. Provisions

	Property dilapidations £'000	Total £'000
At 1 August 2021	–	–
Transfer from accruals	242	242
Provided during the period	58	58
Utilised during the period	(88)	(88)
At 31 July 2022	**212**	**212**

During the year, the group has undertaken a review of their accounting policies and transferred £242,000 in respect of future property dilapidation costs from accruals to provisions. The prior year figure has not been restated as management conclude that the quantum of the transfer is not material to the users of the financial statements and note that both provisions and accruals are presented within current liabilities.

The provision relates to the potential dilapidation costs from the exit of all it's premises. Because of the long term nature of the liability, there is uncertainty in estimating the provision. The extent and cost of potential dilapidation costs represent a best estimate applied across the group's lease portfolio based on past experience, the extent of remediation work required and the expected timing of activity, for which there is a high level of uncertainty.

During the year, part of the provision was utilised against the exit of the Manchester premises.

24. Share-based payment reserve

Group and Company	£'000
At 1 August 2020	3,901
Share-based payments	417
At 31 July 2021	4,318
Share-based payments	619
Exercise of share options	(21)
At 31 July 2022	**4,916**

The share-based payment reserve accumulates the corresponding credit entry in respect of share-based payment charges. Movements in the reserve are disclosed in the consolidated statement of changes in equity.

A charge of £619,000 has been recognised in the statement of comprehensive income for the year (2021: charge of £417,000).

Share option schemes

The group operates the following share option schemes, all of which are operated as Enterprise Management Incentive ("EMI") schemes insofar as the share options being issued meet the EMI criteria as defined by HM Revenue & Customs. Share options issued that do not meet EMI criteria are issued as unapproved share options, but are subject to the same exercise performance conditions.

Nanoco Group plc Long Term Incentive Plan ("LTIP")

Grant in October 2012

Share options were granted to staff and Executive Directors on 22 October 2012. The options granted to Executive Directors were subject to commercial targets being achieved. The exercise price was set at 57 pence, being the average closing share price on the day preceding the issue of the share options. The fair value benefit is measured using a binomial model, taking into account the terms and conditions upon which the share options were issued. Share options issued to staff vest over a three-year period from the date of grant and are exercisable until the tenth anniversary of the award, but are not subject to performance conditions.

24. Share-based payment reserve continued

Share option schemes continued

Nanoco Group plc Long Term Incentive Plan ("LTIP") continued

Grant in May 2014

Share options were granted to certain staff on 23 May 2014. The exercise price was set at 89 pence, being the average closing share price on the three days preceding the issue of the share options. The fair value benefit is measured using a binomial model, taking into account the terms and conditions upon which the share options were issued. The options vested at the end of three years from the date of grant and are exercisable until the tenth anniversary of the award. The awards were not subject to performance conditions. Vesting of the award was subject to the employees remaining full-time members of staff at the point of vesting. No options were granted to Executive Directors.

Grant in October 2014

Share options were granted to a member of staff on 14 October 2014. The exercise price was set at 56.5 pence, being the average closing share price on the days preceding the issue of the share options. The fair value benefit is measured using a binomial model, taking into account the terms and conditions upon which the share options were issued. The options vested at the end of three years from the date of grant and are exercisable until the tenth anniversary of the award. The awards were not subject to performance conditions. Vesting of the award was subject to the employees remaining full-time members of staff at the point of vesting. Vesting of the award is subject to the employee remaining a full-time member of staff at the point of vesting.

Nanoco Group plc 2015 Long Term Incentive Plan ("LTIP")

Grants in December 2015 (fully lapsed), April 2016 (fully lapsed), November 2017 (fully lapsed), November 2018 (fully lapsed), October 2020, October 2021 and November 2022

Following approval of the new scheme at the 2015 AGM, share options have been granted to Executive Directors and key staff on a number of occasions at nil cost, and have an exercise price of nil. The fair value benefit is measured using a stochastic model, taking into account the terms and conditions upon which the share options are issued. In each case, the options vest at the end of the three-year performance period subject to meeting the performance criteria (as detailed in the Directors' remuneration report) in each reporting period and are exercisable after a two-year holding period until the tenth anniversary of the award.

Deferred Bonus Plan ("DBP")

On 22 November 2016, awards in the form of nil-cost options were granted to the Executive Directors in respect of 50% of their bonuses for the year ended 31 July 2016 which are delivered in the form of a share award under the DBP. The awards vested during FY19, after the required two-year holding period.

On 31 October 2019 and 10 December 2019, awards in the form of nil-cost options were granted to the Executive Directors in respect of 100% of their bonuses for the year ended 31 July 2019 which were delivered in the form of a share award under the DBP. The awards vested during FY22, after the required two-year holding period.

On 9 November 2021, awards in the form of nil-cost options were granted to the Executive Directors in respect of 100% of their bonuses for the year ended 31 July 2021 which are delivered in the form of a share award under the DBP. The awards will vest in FY23, after the required two-year holding period.

The following tables illustrate the number and weighted average exercise prices of, and movements in, share options during the year.

Group and Company	**2022 total Number**	2021 total Number
Outstanding at 1 August	**20,580,246**	17,681,547
Granted during the year	**6,806,783**	8,462,165
Exercised during the year	**(1,462,302)**[2]	–
Forfeited during the year	**(260,466)**	(236,529)
Expired during the year	**(1,921,403)**	(1,299,404)[1]
Lapsed during the year	**(3,922,506)**	(4,027,533)
Outstanding at 31 July 2022	**19,820,352**	20,580,246
Exercisable at 31 July 2022	**5,048,399**	7,582,097

1 The total number of expired options for 2021 has been updated to 1,299,404 from 445,000 to appropriately reflect the movement in the total number of share options for the comparative year. This has no impact on the charge recognised in the current or comparative year.

2 For the share options exercised during the year, the exercise price payable is at the nominal value of shares issued of 10p.

Notes to the financial statements continued

24. Share-based payment reserve continued

Weighted average exercise price of options

Group and Company	2022 Pence	2021 Pence
Outstanding at 1 August	**28.8**	37.5
Granted during the year	**–**	–
Exercised during the year	**–**	–
Expired during the year	**50.0**	66.8
Lapsed during the year	**60.3**	–
Outstanding at 31 July 2022	**8.9**	28.8

The weighted average exercise price of options granted during the year to 31 July 2022 was nil (2021: nil). The range of exercise prices for options outstanding at the end of the year was nil-89 pence (2021: nil–110.00 pence). The weighted average exercise price of options exercisable at the 31 July 2022 was 35 pence (2021: 112 pence).

For the share options outstanding as at 31 July 2022, the weighted average remaining contractual life is 6.59 years (2021: 6.42 years). The aggregate fair value of options issued in the year was £1,009,000 (2021: £330,000).

The following table lists the inputs to the models used for the years ended 31 July 2022 and 31 July 2021.

	Market performance-linked grants		Non-market performance-linked grants	
Group and Company	2022	2021	2022	2021
Expected volatility	**112.3%**	110.6%	**N/A**	N/A
Risk-free interest rate	**0.50%**	0.00%	**N/A**	N/A
Expected life of options (years average)	**3**	3	**2**	N/A
Weighted average exercise price	**£nil**	£nil	**£nil**	N/A
Weighted average share price at date of grant	**22.30p**	9.67p	**22.30p**	N/A
Expected dividends	**–**	–	**–**	N/A
Model used	**Stochastic**	Stochastic	**Black-Scholes**	N/A

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

Certain awards are subject to a holding period after vesting. A Finnerty model has been used to determine a discount for the lack of marketability of the shares.

25. Merger reserve and capital redemption reserve

Merger reserve

Group	£'000
At 1 August 2020, 31 July 2021 and 31 July 2022	**(1,242)**

The merger reserve arises under section 612 of the Companies Act 2006 on the shares issued by Nanoco Tech Limited to acquire Nanoco Technologies Limited as part of a simple group reorganisation on 27 June 2007.

Capital redemption reserve

Company	£'000
At 1 August 2020, 31 July 2021 and 31 July 2022	**(4,402)**

The capital redemption reserve arises from the off-market purchase of deferred shares on 4 May 2005 and their subsequent cancellation.

26. Movement in accumulated losses

Group	Profit and loss £'000	Foreign currency translation reserve £'000	Treasury shares £'000	Total accumulated losses £'000
At 1 August 2020	(65,607)	4	(20)	(65,623)
Loss for the year	(4,395)	–	–	(4,395)
Other comprehensive income	–	–	–	–
At 31 July 2021	(70,002)	4	(20)	(70,018)
Loss for the year	(4,697)	–	–	(4,697)
Other comprehensive income	–	–	–	–
At 31 July 2022	**(74,699)**	**4**	**(20)**	**(74,715)**

Profit and loss represents the cumulative loss attributable to the equity holders of the Parent Company.

Historically, treasury shares included the value of Nanoco Group plc shares issued as jointly owned equity shares and held by the Nanoco Group-sponsored EBT jointly with a number of the group's employees. At 31 July 2022 no shares in the Company were held by the EBT (2021: nil). In addition there are 12,222 (2021: 12,222) treasury shares not held by the EBT.

Company	Accumulated losses £'000	Treasury shares £'000	Total accumulated losses £'000
At 1 August 2020	(113,442)	(20)	(113,462)
Loss for the year	(6,516)	–	(6,516)
At 31 July 2021	(119,958)	(20)	(119,978)
Loss for the year	(340)	–	(340)
At 31 July 2022	**(120,298)**	**(20)**	**(120,318)**

27. Financial risk management

Overview

This note presents information about the group's exposure to various kinds of financial risks, the group's objectives, policies and processes for measuring and managing risk, and the group's management of capital.

The Board of Directors has overall responsibility for the establishment and oversight of the group's risk management framework. The Executive Directors report regularly to the Board on group risk management.

Capital risk management

The Company reviews its forecast capital requirements on a half-yearly basis to ensure that entities in the group will be able to continue as a going concern while maximising the return to stakeholders.

The capital structure of the group consists of equity attributable to equity holders of the Parent, comprising issued share capital, reserves and accumulated losses as disclosed in notes 22 to 26 and in the group statement of changes in equity. At 31 July 2022 total equity was £4,334,000 (2021: £3,052,000).

The Company is not subject to externally imposed capital requirements.

Liquidity risk

The group's approach to managing liquidity is to ensure that, as far as possible, it will always have sufficient liquidity to meet its liabilities when due, under both normal and stressed conditions, without incurring unacceptable losses or risking damage to the group's reputation.

The group manages all of its external bank relationships centrally in accordance with defined treasury policies. The policies include the minimum acceptable credit rating of relationship banks and financial transaction authority limits. Any material change to the group's principal banking facility requires Board approval. The group seeks to mitigate the risk of bank failure by ensuring that it maintains relationships with a number of investment-grade banks.

Notes to the financial statements continued

27. Financial risk management continued

Categorisation of financial instruments

Financial assets/(liabilities)	Financial assets at amortised cost £'000	Financial liabilities at amortised cost £'000	Financial assets and liabilities at amortised cost Group £'000	Financial assets and liabilities at amortised cost Company £'000
31 July 2022				
Cash and cash equivalents	**6,762**	**–**	**6,762**	**5,497**
Trade receivables	**975**	**–**	**975**	**–**
Other receivables	**298**	**–**	**298**	**146**
Inter-company short-term loan to subsidiary	**–**	**–**	**–**	**66,813**
Less impairment provision	**–**	**–**	**–**	**(66,813)**
Trade and other payables	**–**	**(1,510)**	**(1,510)**	**(188)**
Lease liabilities	**–**	**(169)**	**(169)**	**–**
Loan notes and accrued interest	**–**	**(3,919)**	**(3,919)**	**(3,392)**
Inter-company payable	**–**	**–**	**–**	**(450)**
	8,035	**(5,598)**	**(2,437)**	**1,613**

Financial assets/(liabilities)	Financial assets at amortised cost £'000	Financial liabilities at amortised cost £'000	Financial assets and liabilities at amortised cost Group £'000	Financial assets and liabilities at amortised cost Company £'000
31 July 2021				
Cash and cash equivalents	3,813	–	3,813	1
Trade receivables	858	–	858	–
Other receivables	157	–	157	–
Inter-company short-term loan to subsidiary	–	–	–	66,889
Less impairment provision	–	–	–	(66,889)
Trade and other payables	–	(1,617)	(1,617)	(80)
Lease liabilities	–	(678)	(678)	–
Loan notes and accrued interest	–	(3,487)	(3,487)	(2,995)
Inter-company long-term loan from subsidiary	–	–	–	(450)
	4,828	(5,782)	(954)	(3,524)

The values disclosed in the above table are carrying values. The Board considers that the carrying amount of financial assets and liabilities approximates to their fair value.

The main risks arising from the group's financial instruments are credit risk and foreign currency risk. The Board of Directors reviews and agrees policies for managing each of these risks which are summarised below.

Credit risk

The group's principal financial assets are cash, cash equivalents and deposits. The group seeks to limit the level of credit risk on the cash balances by only depositing surplus liquid funds with multiple counterparty banks that have investment-grade credit ratings.

The group trades only with recognised, creditworthy third parties. Receivable balances are monitored on an ongoing basis with the result that the group's exposure to bad debts is not significant. The group's maximum exposure is the carrying amount as disclosed in note 16, which was neither past due nor impaired. All trade receivables are ultimately overseen by the CFO and are managed on a day-to-day basis by the UK finance team. Credit limits are set as deemed appropriate for the customer.

The maximum exposure to credit risk in relation to cash, cash equivalents and deposits is the carrying value at the balance sheet date.

27. Financial risk management continued

Foreign currency risk

The group is exposed to currency risk on sales and purchases that are denominated in a currency other than the respective functional currency of the Company. These are primarily US Dollars ("USD") and Euros. Transactions outside of these currencies are limited.

Almost all of the Company's revenue is denominated in USD. The group purchases some raw materials, certain services and some assets in USD which partly offsets its USD revenue, thereby reducing net foreign exchange exposure.

The group may use forward exchange contracts as an economic hedge against currency risk, where cash flows can be judged with reasonable certainty. Foreign exchange swaps and options may be used to hedge foreign currency receipts in the event that the timing of the receipt is less certain. There were no open forward contracts as at 31 July 2022 or at 31 July 2021.

The split of group assets between Sterling and other currencies at the year end is analysed as follows (Company assets are all in Sterling):

	31 July 2022				31 July 2021			
Group	GBP £'000	EUR £'000	USD £'000	Total £'000	GBP £'000	EUR £'000	USD £'000	Total £'000
Cash and cash equivalents	6,547	30	185	6,762	3,255	65	493	3,813
Trade receivables	12	–	963	975	76	–	782	858
Trade payables	(614)	(1)	(7)	(622)	(669)	(1)	(7)	(677)
	5,945	29	1,141	7,115	2,662	64	1,268	3,994

All other categories of assets and liabilities in the statement of financial position are denominated in Sterling.

Sensitivity analysis to movement in exchange rates

The following table demonstrates the sensitivity to a reasonably possible change in the Sterling rate against other currencies used within the business, with all other variables held constant, of the group's loss before tax (due to foreign exchange translation of monetary assets and liabilities) and the group's equity.

Increase/(decrease)	Impact on loss before tax and group equity 2022 £'000	Impact on loss before tax and group equity 2021 £'000
10%	132	150
5%	62	71
(5%)	(56)	(64)
(10%)	(108)	(123)

Interest rate risk

As the group's borrowing is in the form of loan notes with a fixed rate of return, interest rate risk is limited to the reduction of interest received on cash surpluses held at bank which receive a floating rate of interest. The principal impact to the group is to interest-bearing cash and cash equivalent balances held, which are as set out below:

	31 July 2022			31 July 2021		
Group	Fixed rate £'000	Floating rate £'000	Total £'000	Fixed rate £'000	Floating rate £'000	Total £'000
Cash and cash equivalents	–	6,762	6,762	–	3,813	3,813
Loan notes	(3,919)	–	(3,919)	(3,389)	–	(3,389)
Company						
Cash and cash equivalents	–	5,497	5,497	–	1	1
Loan notes	(3,392)	–	(3,392)	(2,989)	–	(2,989)

The exposure to interest rate movements is immaterial.

Notes to the financial statements continued

27. Financial risk management continued

Maturity profile

Set out below is the maturity profile of the group's financial liabilities at 31 July 2022 and 31 July 2021 based on contractual undiscounted payments, including contractual interest.

2022	Less than one year £'000	One to five years £'000	Greater than five years £'000	Total £'000
Financial liabilities				
Trade and other payables	**1,728**	**–**	**–**	**1,728**
Lease liabilities	**41**	**128**	**–**	**169**
Loans (including contractual interest)	**–**	**3,392**	**527**	**3,919**
	1,769	**3,520**	**527**	**5,816**

2021	Less than one year £'000	One to five years £'000	Greater than five years £'000	Total £'000
Financial liabilities				
Trade and other payables	1,617	–	–	1,617
Lease liabilities	545	133	–	678
Convertible loan (including contractual interest)	–	4,150	751	4,901
	2,162	4,283	751	7,196

Trade and other payables are due within three months.

The Directors consider that the carrying amount of the financial liabilities approximates to their fair value.

As all financial assets are expected to mature within the next twelve months, an aged analysis of financial assets has not been presented.

28. Related party transactions

The group

There were no sales to, purchases from or, at the year end, balances with any related party.

The Company

The following table summarises inter-company balances at the year end between Nanoco Group plc and subsidiary entities:

	Notes	31 July 2022 £'000	31 July 2021 £'000
Long-term loans owed to Nanoco Group plc by			
Nanoco Life Sciences Limited		**20,286**	20,286
Nanoco Technologies Limited[1]		**5,407**	4,788
		25,693	25,074
Less provision against debt owed by Nanoco Life Sciences Limited	14	**(20,286)**	(20,286)
Less provision against debt owed by Nanoco Technologies Limited	14	**(3,889)**	(3,889)
		1,518	899
Short-term loan owed to Nanoco Group plc by			
Nanoco Technologies Limited[2]	16	**66,813**	66,889
Less impairment provision	16	**(66,813)**	(66,889)
		–	–
Intercompany payable by Nanoco Group plc to			
Nanoco Tech Limited	18	**(450)**	(450)
Nanoco US Inc	18	**(188)**	–

1 The movement in the long-term loan due from Nanoco Technologies Limited relates to the recharge in respect of the expense for share-based payments for staff working for Nanoco Technologies Limited and is included in investments.

2 The movement in the short-term loan due from Nanoco Technologies Limited relates to transfers of cash balances between the entities for the purposes of investing short-term funds and the funding of trading losses.

There are no formal terms of repayment in place for these loans and it has been confirmed by the Directors that the long-term loans will not be recalled within the next twelve months.

None of the loans are interest-bearing.

There is no controlling party of the group or Company.

29. Compensation of key management personnel (including Directors)

	2022 £'000	2021 £'000
Short-term employee benefits	**644**	710
Pension costs	**39**	20
Share-based payments	**624**	189
	1,307	919

The key management team comprises the Executive Directors and one member of staff (2021: two) who are not Directors of the Company. The staff member of the team is the Operations Director.

Investor information

Directors

Dr Christopher Richards	Non-Executive Chairman
Brian Tenner	Chief Executive Officer
Dr Nigel Pickett	Chief Technology Officer
Liam Gray	Chief Financial Officer
Dr Alison Fielding	Senior Independent and Non-Executive Director
Chris Batterham	Non-Executive Director

Secretary

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