

possibilities



Nanoco Group plc

Annual Report
and Accounts 2021
Registered no. 05067291

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 p19

Experienced team

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

— more on p32

Our year in brief

We have successfully delivered a number of critical objectives during a challenging year

- Delivered all technical milestones for our important European electronics customer
- Signed major new customer for novel materials in sensing applications
- Completed restructuring of the business around core competencies of R&D, scale up and production
- Continued good progress in our legal action against Samsung for wilful infringement of our IP
- Debt issuance to protect cash runway and value in the organic business and the Samsung law suit
- Monthly cash costs cut by 60% compared to FY19 and stable at £0.4 million per month

Revenue	Loss after tax	Billings	Cash
£2.1m	(£4.4m)	£1.7m	£3.8m
-46%	+13%	-32%	-26%

- Fall in revenue reflects end of US Customer contract in H1 FY20
- Partly offset by new business wins in sensing materials
- Fall in revenue more than offset by cost reductions
- Future property savings deliver £0.6 million annualised from April 2022
- Billings closely mapping to revenue
- Contracted backlog for FY22 of £0.9 million
- Organic cash runway extended to H2 2022
- Monthly cash burn rate stable at £0.4 million, before revenue and tax credits

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

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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
- 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

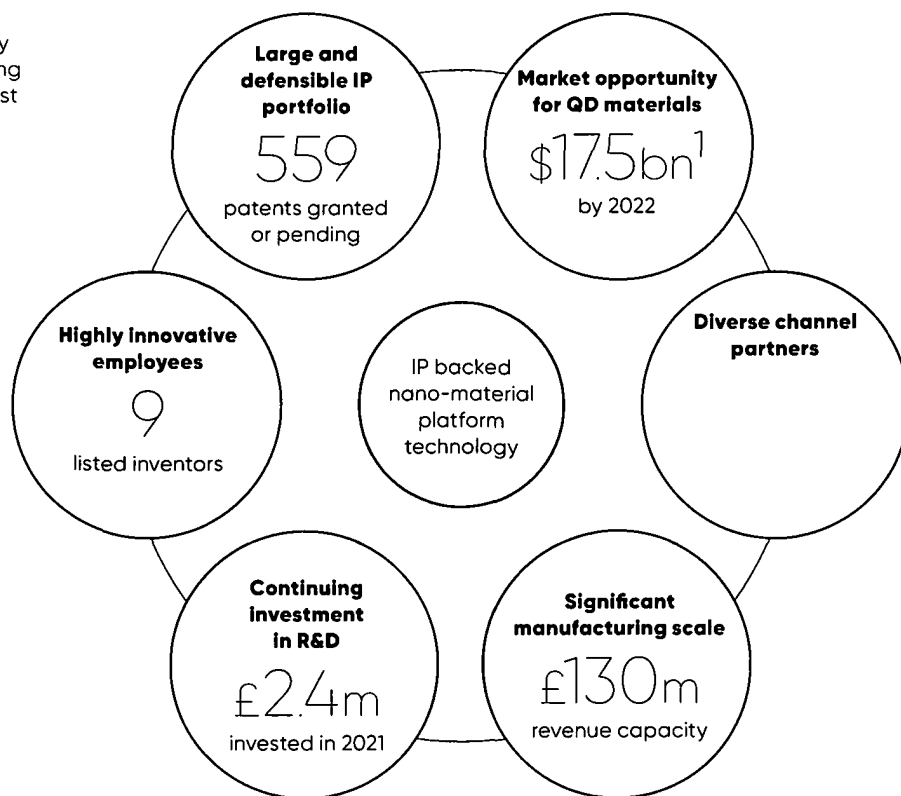
- At 1 October 2021, 37 employees, of whom 9 are inventors
- 15 staff with PhDs
- 8 nationalities of staff: American, British, German, Indian, Italian, Lithuanian, Polish and Portuguese

Respected globally

- R&D and HQ functions in Manchester, UK
- Twin production facilities in Runcorn, UK
- Partnerships in a number of regions

Why invest in Nanoco?

- Platform technology gives access to a wide range of large and rapidly growing end markets such as sensing (Internet of Things), display, specialist lighting and medical



CEO report

p9

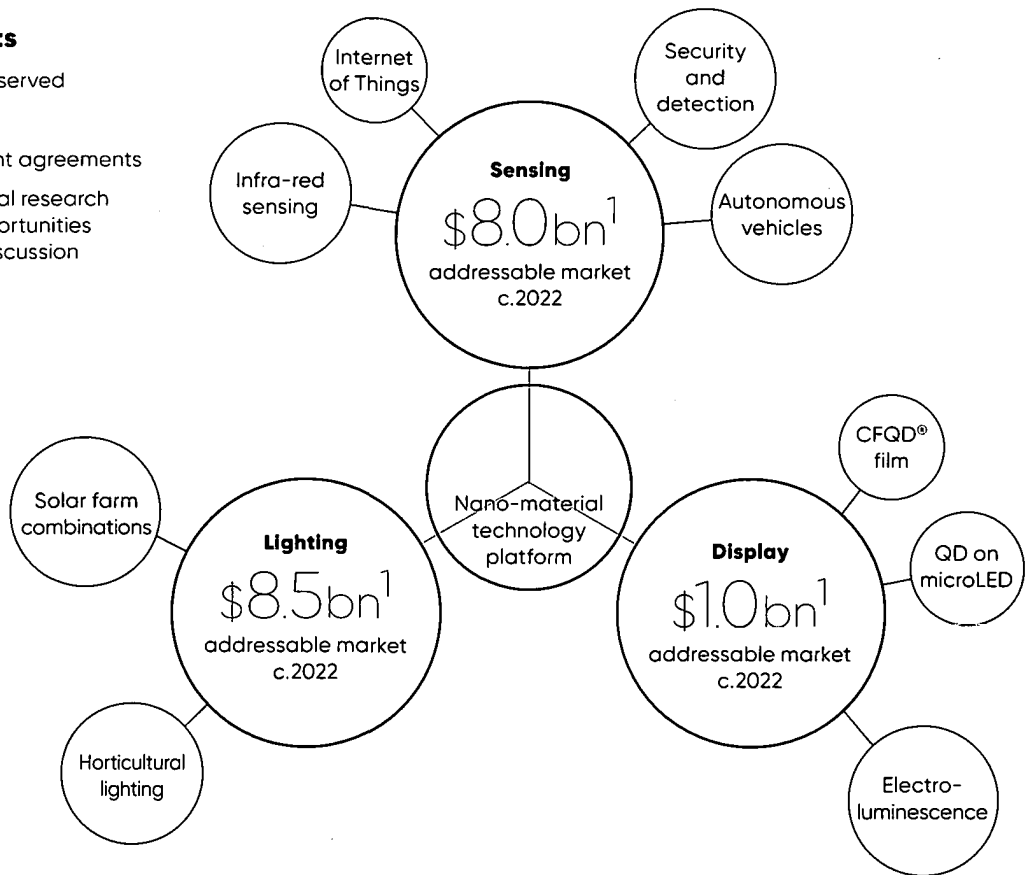
¹ Source – management estimate based on multiple independent market reports.

Dual capabilities at our Runcorn manufacturing facility

- Based at Runcorn, UK, an area with extensive chemical industry expertise and supply chains
- Production footprint of 22,000ft²
- Dedicated 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



Business model

p16

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 and other toxic heavy metals with 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 them

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 μ LED and OLED/QD hybrid devices
- Sheet form factor allows for simple drop in integration to current electronics, eliminating retooling costs

Chairman's statement

New sensing materials built on our platform technology

DR CHRISTOPHER RICHARDS
Chairman

Summary

- Important European customer programme progressing towards scale up and production for sensing materials in the short to medium term.
- New development agreement with a significant Asian chemical company supplying global electronics markets.
- New material sets being developed addressing broad range of key operating wavelengths.
- Good progress in the litigation against Samsung for wilful infringement of Nanoco's IP – positive outcome to claim construction hearing.
- Restructuring complete creating an affordable cost base for organic business activities.
- New £3.0 million debt issue to major shareholders in July 2021 extends organic cash runway into H2 2022 - beyond key litigation milestones and expected visibility on production orders.

This has been a year of steady progress for Nanoco. We delivered all existing customer milestones and added new strategic customers. We substantially reduced our cost base, starting with the Board, and the broader team has been re-shaped while retaining our core competencies. In parallel, we have successfully progressed our litigation against Samsung.

Strategy and business activity

We have significantly expanded our range of nanomaterials and their addressable wavelengths for a variety of potential sensing applications. We have moved steadily from a "single customer, single product" position in sensing to one in which we have multiple customers and eight distinct materials. This expanded range of market leading materials will support more stable revenue growth over the medium term.

While sensing applications are our current primary focus, we also continue to work with partners in display, horticulture and life sciences.

Completion of restructuring activities during the year has allowed us to retain a skilled and focussed team that is able to deliver R&D, scale up and production at scale from our Runcorn facility.

Samsung litigation

Our extensive efforts on the litigation against Samsung for the alleged wilful infringement of our IP have continued. The outcome of the claim construction hearing (or "Markman"), held in March 2021, was very positive for Nanoco: we won the argument on four of the five patents in the case and the fifth had each side win one construction each.

Once the Patent Trial and Appeal Board ("PTAB") took the decision in May 2021 to review all five patents in the case, it became clear that our best strategy for the case was to agree to a deferral of the trial until after the PTAB issues its ruling on patent validity – expected by May 2022. This approach simplifies the trial process and increases potential damages from allegedly infringing TVs sold by the time of the trial.

Our third party funding partner continues to support all aspects of the lawsuit, including the parallel patent review process. This allows us to focus our financial resources on our organic business activities.

Covid-19 and financial performance

Through the sterling efforts of our staff we were able to maintain Covid-19 secure customer-focused output in both of our facilities. This allowed us to meet all technical milestones and material deliveries on time.

The Board responded promptly to the Covid-19 pandemic, leading the way with reductions in Directors' salaries, followed by Company-wide temporary pay reductions. With the benefit of restructuring during the year and new commercial business wins, we were able to reverse most staff salary reductions in October 2020 (and in April 2021 for the leadership team).

Monthly gross cash costs are now stable at around £0.4 million per month. With revenue running at between £0.2m and £0.3m per month, the cash burn has been substantially reduced compared with the prior year.

The debt issue in July 2021 extends the Group's cash runway past the initial result of the PTAB and the expected re-scheduled trial in H2 2022. The Board formed the view that the Company's share price did not fairly reflect the value potential within the Group and therefore a non-dilutive debt issue, instead of a highly dilutive equity issue, was in the best interests of all shareholders. Importantly, the debt issue also extends the organic cash runway to a point when we expect to have visibility on potential production orders in the short to medium term – a key strategic priority.

No dividend is proposed for the year (2020: none).

Governance and Board

During the year, we took decisive steps to reduce the size and cost of the Board, to make it commensurate with the scale of the operations. The cost of the Board is now broadly half that of the prior year.

Executive Director salary reductions remained in place for a full year up to March 2021. The Non-Executive Directors now defer 35% of their salaries until there is a significant improvement in the Group's financial condition.

Brian Tenner, the previous COO and CFO, was appointed as CEO on 1 September 2020. This planned succession reflects the positive impact Brian has made on the business since his appointment in August 2018.

As previously announced, Michael Edelman stepped down from the Board as CEO with effect from 1 September 2020. He remains available to the Group in his part-time role of Special Adviser to the Litigation Sub-Committee.

Nigel Pickett's notice as CTO was rescinded in March 2021 (having been served in March 2020 as a pre-emptive potential cost reduction measure). Nigel

remains critical to the development of our new materials and the ongoing litigation against Samsung.

The smaller Executive team of Brian and Nigel successfully oversaw the delivery of growing commercial opportunities and important development programmes during the year. They have been ably assisted in their efforts by Liam Gray as UK Finance Director and Company Secretary, Kevin Smith as UK Operations Director, and the whole of the senior management team.

Just after the year end we welcomed Henry Turcan to the Board as a new Non-Executive Director. Henry is a representative of our major shareholder, Lombard Odier, and brings extensive and valuable experience of capital markets and funding for companies at Nanoco's stage of evolution.

Employees and shareholders

Our staff have again demonstrated great commitment in a challenging year. With more tasks inevitably shared amongst a smaller team, excellent customer service and on time delivery of milestones and material orders have been maintained. This has only been possible through the continued dedication and application of all of our staff. The Board is immensely grateful to our staff for their continued commitment.

I would also like to thank our shareholders for their continuing support. We are very much aware that the Group will continue to burn cash in the near term, as we pursue our goals of building the commercial business while defending our IP through litigation.

I look forward to engaging with as many shareholders as possible at our AGM to be held on 30 November 2021.

“Extending our cash runway beyond expected key litigation milestones and potential production order visibility in H2 2022 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

Outlook

The Board remains convinced of the strong merits of our broad-based platform technology. The programme with a major European electronics company has the potential to move into commercial production in the short to medium term, subject to the delivery of technical milestones and final customer adoption of the associated technology.

The new development programme with a significant Asian chemical company announced in July 2021 also has the potential to follow a similar path, albeit on a slightly longer timeframe.

It remains the case that our current programmes are still subject to risks of failure in other parts of the supply chain or a decision by final customers not to adopt the technology that uses our nanomaterials. As a result, we reiterate the material uncertainty around the timing of future revenue streams.

The litigation against Samsung has significant potential to transform shareholder value. We therefore retain contingency plans to protect our "IP shell" and the potential value in the litigation if we cannot create a self-financing organic business in the medium term.

We retain our core competencies and capabilities in R&D, scale up and production and have a small and focused team dedicated to bringing our nanomaterials to market. The opportunities to create significant shareholder value in our organic activities and the Samsung litigation in the short to medium term, are clear and compelling.

The Board therefore remains confident in the strength of the investment proposition and value inherent in the business.

Dr Christopher Richards
Chairman
3 November 2021

Chief Executive Officer's statement

Expanding our commercial offering of nanomaterials

BRIAN TENNER
Chief Executive Officer

ABOVE:
Laboratories at Nanoco.

We have made a number of advances this year in building foundations for potential future value creation. This was achieved despite the continuing challenges of operating in a Covid-19 secure way with unpredictable impacts on staffing due to isolation requirements. The commitment of the team to service our customers and to step up and adopt new responsibilities cannot be faulted.

We grew our pipeline of customer opportunities throughout the year, particularly in infra-red sensing markets. We have also continued development work with customers in the display field using our CFQD® quantum dots which are also relevant for lighting and life sciences opportunities.

The litigation against Samsung for the alleged wilful infringement of our IP has taken significant effort on the part of a small number of team members. The Board is very pleased with progress in the last year and remains confident in the strength of our position and that transformative value can be generated for shareholders if the outcome is successful. We have pulled together further facts and background information on the lawsuit on pages 12 and 13.

The year finished with a non-dilutive debt issue to extend the cash runway for the organic business and to strengthen the Group's balance sheet for the litigation process. I explain in more detail the difference between our "cash runway" and the "organic cash runway" on page 12.

Business performance

Electronics

In the first half we achieved all development milestones for our major European electronics customer. A second scope of work was added early in the second half and this was completed successfully just after the year end. We also added additional customer relationships throughout the year with the most notable being a very significant Asian chemical company that supplies advanced materials to global electronics supply chains.

Deliveries for these customers underpinned our revenue for the year and allowed us to finish the year with revenue of £2.1 million in line with Board expectations, having started the year with a contracted order book of £1.0 million.

Both of these large customers have the potential for demand volumes that could move the Group significantly towards our goal of becoming self-financing in the medium term. Both relationships are part of our strategy to diversify our commercial risk.

As shown in the infographic on page 15, 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 five customers and are working with eight distinct materials/wavelength combinations. Nigel Pickett is leading our ongoing efforts to expand this further to cover multiple material sets in all of the key operating wavelengths, specifically targeting bands such as 1,400nm, 1,550nm and 1,800nm.

The mega-trends seen in electronics, automation, automotive and the Internet of Things more generally continue to be very favourable and support 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.

Chief Executive Officer's statement continued

Business performance continued

Electronics continued

Given the scale of these sectors and the other market participants, we are often going 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 last year – but it also means the potential is very high to deliver significant value if our materials make it into commercial production.

Delivery of technical milestones during the year has moved a number of programmes closer to potential scale up and commercial production. Indeed, already published customer product life cycles suggest we may have good visibility of potential commercial production by the second half of calendar year 2022.

While our current activities are more heavily weighted towards development work at this stage, possible scale up activity may occur in FY22, depending of course on the continued successful delivery of technical milestones by Nanoco and ongoing support for these projects by our customers and the ultimate adoption of the technology by the final OEM's in the supply chains.

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 work proactively to agree commercial solutions to the issue of supply chain diversity.

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 in Display reduced following the end of our collaboration with Merck. Merck has announced its intention to continue investing in electronics materials that may create opportunities for Nanoco in the future but at present, there are no ongoing commercial activities between the two companies.

We continue to seek out new relationships and a number of these are moving forward at a small scale. A number of small R&D projects were delivered for customers during the year.

We hope that the final decision to end the Restriction of Hazardous Substances ("RoHS") cadmium exemption for film-based displays will soon be legislated and will provide fresh impetus to display panel manufacturers to embrace the benefits of our CFQD® quantum dots. While the European markets currently only see limited sales of cadmium-based QD televisions, the focus of growth on cadmium-free solutions may 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 outcome to 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 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 heavy metal-free quantum dot testing kit for the accurate and rapid visual detection of Covid-19. The 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 is scheduled to complete in May 2022 with a working prototype. Good progress has been made to date with VIVODOTS® conjugated with the appropriate antibodies successfully detecting the presence of the target pathogen at the required level of sensitivity to proceed to the next stage of the project. We are now working with a device partner to create a functional device which will then be subject to industrial design to create the functioning prototype.

The project is an exciting adjacent use of our technology platform. Any medium-term value implications will be wholly contingent on the successful delivery of the targeted project outcomes.

Other sectors including lighting

Following the need to restructure and downsize the business, our core focus is primarily on near-term sensing opportunities. Where there is an immediate substitution opportunity we will continue to proactively engage with other sectors such as horticultural applications that utilise the platform technology of our CFQD® quantum dots.

Operations

In the early part of the year, in order to conserve our cash, the Group completed the restructuring exercise that started at the end of the prior year. A further small scale restructuring took place in the second quarter. Our resulting team now numbers approximately 39 staff and we have cut our installed cash cost base from over £12.0 million in FY19 to around £5.0 million for FY22.

Critically, we have managed to retain our core capabilities in R&D, scale up and manufacturing, including both facilities at our Runcorn site. This is essential to deliver the business growth we hope to achieve in the short to medium term.

Activity in our production facility at Runcorn has focused on supporting the higher demand levels we are seeing for sensing materials from our R&D facility in Manchester. Our scale up team has been re-trained to be able to operate the slightly larger scale reactors in Manchester when customer demand has gone beyond the normal small laboratory scale orders.

The Display facility in Runcorn is currently mothballed to conserve cash but can be re-started at short notice. It also has the potential to support sensing activities if multiple orders for different materials are received at the same time.

Our flexible production team is trained to be able to operate both facilities to maximise our capability while minimising costs in the short term and maintaining our significant production revenue-generating capacity.

Responding to Covid-19

During the current Covid-19 pandemic, we continue to focus on protecting the health, safety and wellbeing of our employees while mitigating ongoing economic challenges. We have put together a series of measures that allow us to continue to meet customer needs from our Manchester R&D facility with support from our Runcorn site as required.

Our Runcorn site has lower activity levels and our facility for the large scale production of CFQD[®] quantum dot has been temporarily mothballed. Other essential work is being carried out remotely and no members of staff are using the Government's furlough scheme.

Our reduced headcount and the layout of our split facilities make it easier to follow many of the recommended practices for the return to work. Having completed detailed risk assessments and implemented the resulting action plans many staff have now returned safely to the workplace while also allowing remote working where appropriate.

Intellectual property

We continue to proactively manage our IP portfolio to maximise value and protect our core competencies. During the year, the Group's IP portfolio was reduced to 559 patents and patent applications (2020: 731).

This net reduction reflected 74 new applications and 246 that were dropped, mainly in territories or potential applications where it was no longer felt worthwhile to pursue. We have also slowed the rate of filing new IP to preserve trade secrets and to conserve financial resources.

Our IP and a significant range of business process secrets strongly underpin the Group's valuation while also operating as a challenging barrier to entry to potential competitors.

Environment/Restriction of Hazardous Substances ("RoHS")

The European Commission ("EC") was considering an appeal 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 quantum dots to be applied directly onto LED chips for displays and lighting. The EC has now 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 quantum dots applied directly onto LED chips for displays and high CRI lighting for a period of five years.

Before becoming law, this has to be adopted by the EC though this is not expected to take a significant length of time. 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 limit above to continue to be sold.

People

Our employees have shown great resilience during a very uncertain year. They have remained focused on our customers and supporting each other while coping with the Covid-19 pandemic, uncertainty during the consultation process and a company-wide salary reduction.

We were pleased to be able to reverse the salary reduction for all staff outside the leadership team in October 2020 with the latter having pay cuts rescinded at the end of March 2021.

We were pleased that the staff achieved 100% of their shared team goals for revenue and safety improvements and hence received their full bonus awards. While we feel it is not an appropriate time to make a general inflationary pay award, we have recognised staff feedback on their preferred form of rewards and have therefore increased the Company pension contribution from 5% to 6% with a medium-term goal of achieving a 7.5% Company contribution.

Retaining and incentivising our highly skilled team is key to delivering organic value from the business.

Outlook

Some much needed stability has returned to the business. All staff are now back at work and numbers are stable to match current activity levels.

The heavy workload and distraction of the lawsuit is focused on a small number of the team and our advisers do much of the heavy lifting. Our third party funding for the lawsuit and patent review process allow us to focus Nanoco's cash resources on capturing near-term commercial opportunities.

We will continue to expand our range of materials offered in sensing markets that are experiencing high rates of growth. We are focusing our internal resources on a balance of commercial activities and investment in new IP to protect the developments being made by our R&D efforts.

Contingency plans remain in place in the event that the organic business fails to become self financing. These plans ensure that the potential value in the lawsuit can be protected. However, they would result in the Group becoming an IP shell with all future value potential linked only to our IP, the lawsuit, and a potential licensing only business model.

With our stable cost base, near-term commercial opportunities and live development programmes with significant global players in various electronics markets, I remain confident that we can deliver value for all of our stakeholders in the short to medium term with potentially additional transformative value in the Samsung litigation.

Brian Tenner
Chief Executive Officer
3 November 2021

Chief Executive Officer's statement continued

Q&A

Q: What do you mean when you speak of the "organic cash runway"?

The business has two distinct possible ways to deliver shareholder value. The first and preferred route is an "organic" path where we exploit commercial opportunities using our R&D, scale up and production capabilities in parallel with our efforts to bring the Samsung litigation to a successful conclusion.

Our efforts are currently focused on making a success of the organic business. If this is not successful, the second option would be to reduce the business to an IP shell that focuses all of its efforts on the law suit and maximizing value from our IP portfolio. In this scenario we would sacrifice our organic capabilities. This is what we mean by "contingency plans".

The cost base in the organic scenario is naturally much higher than in the IP shell scenario – though the latter does include significant one-off up-front costs to restructure the business. Our efforts are focused on the organic cash runway since the Board firmly believes that is the best way to deliver most value for shareholders in the medium term. Until we get close to generating self-financing revenues, the organic scenario will consume cash more quickly and thus can have a shorter cash runway than the IP shell scenario.

Q: What are your medium-term goals over the next two to three years?

We remain focused on winning new business to extend our organic cash runway. By adding new material development programmes for significant new customers we are creating a pipeline of opportunities that can deliver production revenues in the short to medium term. Production revenue is key to achieving self-financing cash flows as these cannot be achieved through R&D services alone.

We must ensure that we keep delivering challenging technical milestones to customers. By maintaining excellent customer service and a robust balance sheet we will be well positioned to play a role in some critical global supply chains.

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 to the defendant in a case to request that the Patent Trial and Appeal Board ("PTAB") review whether the patents are valid in a process known as an *inter partes review* ("IPR"). The PTAB has initiated a review of all five patents in the case. The evidential burden required to be passed in order to have an IPR granted is relatively low. For each patent, Samsung needed to show that there was a "reasonable likelihood that they would prevail with respect to at least 1 of the claims challenged in the petition" (source: 35 US Code 314 (d)). Samsung had submitted a number of grounds to challenge each claim and some of the patents have around 20 asserted claims. Nanoco has 47 claims in total across the five patents asserted in the case.

Where the PTAB finds that the evidential test has been met on at least one ground in one claim in each patent, then all of the claims in the patent in question are subject to the IPR process. This includes claims where the PTAB found that Samsung did not pass the evidential burden to challenge them. At the end of the IPR process, the PTAB will rule on each individual claim as opposed to any of the patents as a whole.

In its various submissions to have the IPRs granted and the trial delayed until after the PTAB decision in May 2022, Samsung has conceded the majority of grounds on which it could challenge the validity of the patents or associated claims in the court case. Assuming some of Nanoco's claims are found to be valid by the PTAB, Nanoco will be able to focus our efforts at the trial on the questions of infringement and damages. This is helpful given that the trial has a fixed five-day duration that ends with the jury issuing a verdict, a damages number (for historical sales of TVs in the USA) and an opinion on whether or not the infringement was wilful (in other words, knowingly and deliberately infringing).

Following the verdict, the judge will issue a formal opinion and in addition will rule on other matters such as a damages multiplier if wilfulness has been found by the jury and may also propose a reasonable future 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. Both the final opinions of the PTAB and of the judge are then subject to appeal by either or both parties.

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. Our lead counsel is working on a reduced fee rate (which is being paid by the funder) and will be made whole with a share of upside if the case is successful. 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. The reward structures are built in such a way that all parties on Nanoco's team are incentivised to achieve as large an outcome as possible.

Management comment

The litigation is progressing well. In the claim construction hearing ("Markman") the court upheld four of the five constructions proposed by Nanoco and one by Samsung. A Markman hearing establishes the court's interpretation of certain words or phrases pertinent to the patents and the case. The court was

asked to construe the meanings of five different words or terms used in the patents that Nanoco alleges Samsung has infringed. In terms of the underlying patents, this means Nanoco constructions were preferred in four of the five patents in the case and in the fifth patent, Nanoco and Samsung each had one construction upheld. These definitions can be critical to either side's arguments so it is significant that Nanoco won four of the five.

With respect to the decision by the PTAB to implement all five IPRs, we are encouraged that the language used by the PTAB explicitly rejected many of Samsung's arguments and on many others noted that Nanoco may well win the argument once we present our arguments more fully.

It is Nanoco's contention that our IP is an enabling technology for the Samsung displays and hence the damages model should be based on the total value of the market enabled by our technology. If argued successfully, this will suggest a higher damages award. The US lawsuit covers approximately 33% of Samsung's historical global sales. If Nanoco is successful in the US lawsuit, there will then either be a commercially negotiated global licence agreement covering all other historical and future sales of products linked to Nanoco's technology, or the Group will have the option to pursue separate infringement

cases in the various countries around the world, commencing in the larger markets of Western Europe and the Far East.

The third party funding does not terminate until there is a final resolution of the litigation. The quantum of committed funding is deemed adequate to resource the IPR process, the trial process and a reasonable period for any appeals by either party. The Board therefore believes that there is no significant risk to the law suit funding if Samsung decide to adopt a strategy of delay through various appeals. The Group's commercial opportunities are likely to provide the funding necessary for the Group itself alongside the law suit with other sources of funding being an option if these commercial opportunities are also delayed.

The Board is pleased with the progress of the litigation and the IPR process. The trial delay until after the PTAB decision expected in May 2022 created some pressure on our cash runway but that has been largely addressed by the debt issue in July 2021. We remain confident in the strength of our position and the potential transformational impact on shareholder value of a successful outcome to the lawsuit.

Timeline for inter partes reviews ("IPRs") of patents by the Patent Trial and Appeal Board ("PTAB") and the litigation itself in the Eastern District of Texas

Patent office process

May 2021	May 2022	~1 year
IPRs instituted	PTAB decision on IPRs settles validity points	Potential PTAB appeals option for both sides

Trial process

Mar 2021	~Oct 22	Nov 22 onwards
Markman - Nanoco won four of five patents	Trial and jury verdict Lasts one week	Judge's opinion on future royalty, wilfulness and appeals

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 extremely attractive, and benefiting strongly from operational leverage if extra shifts and volumes were added. Revenue potential: HIGH.

Services

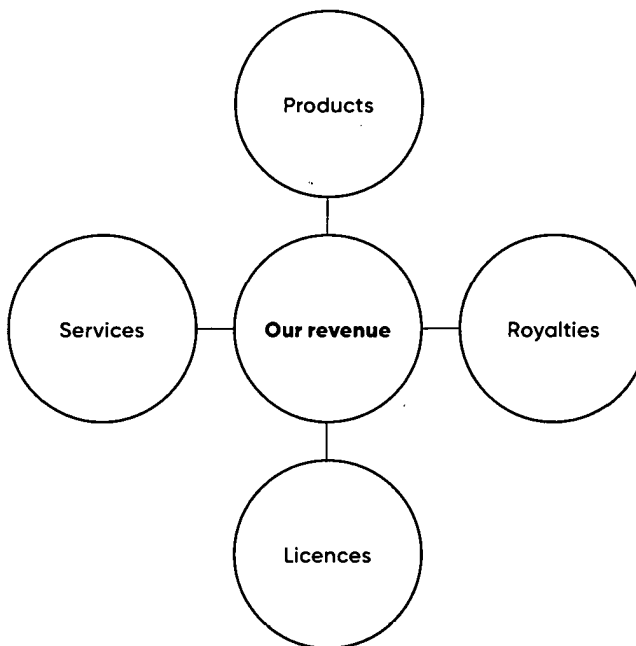
Our highly skilled R&D and Scale Up teams are able to design, develop and scale new materials for customer-specific applications. We are able to charge customers for professional services when we carry out these sorts of development activities for them with rewards often linked to achieving technical 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. 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 (DuPont and Wah Hong) allow them to manufacture our materials themselves (or source from elsewhere under further licences) 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. Revenue potential: HIGH (Display material royalties linked to outcome of Samsung litigation).



Our strategy **p20**

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 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.

	Why we engage	How we engage and respond
Employees	<ul style="list-style-type: none"> – To ensure employees feel valued for their contribution – To empower our employees – To enhance our employees through training and progression 	<ul style="list-style-type: none"> – 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	<ul style="list-style-type: none"> – 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 	<ul style="list-style-type: none"> – 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	<ul style="list-style-type: none"> – 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 	<ul style="list-style-type: none"> – 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	<ul style="list-style-type: none"> – To ensure compliance with regulatory requirements – To protect our staff and communities – To ensure best practice 	<ul style="list-style-type: none"> – We review our operations periodically to ensure compliance with regulations – We actively maintain standards through external reviews (e.g. ISO 9001 accreditation)
Shareholders	<ul style="list-style-type: none"> – 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 	<ul style="list-style-type: none"> – 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

This provides easy access to RNS announcements and reports and publications. In the ordinary course, and outside of the prohibition on meeting attendance currently in force by the Government due to the Covid-19 pandemic, 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.

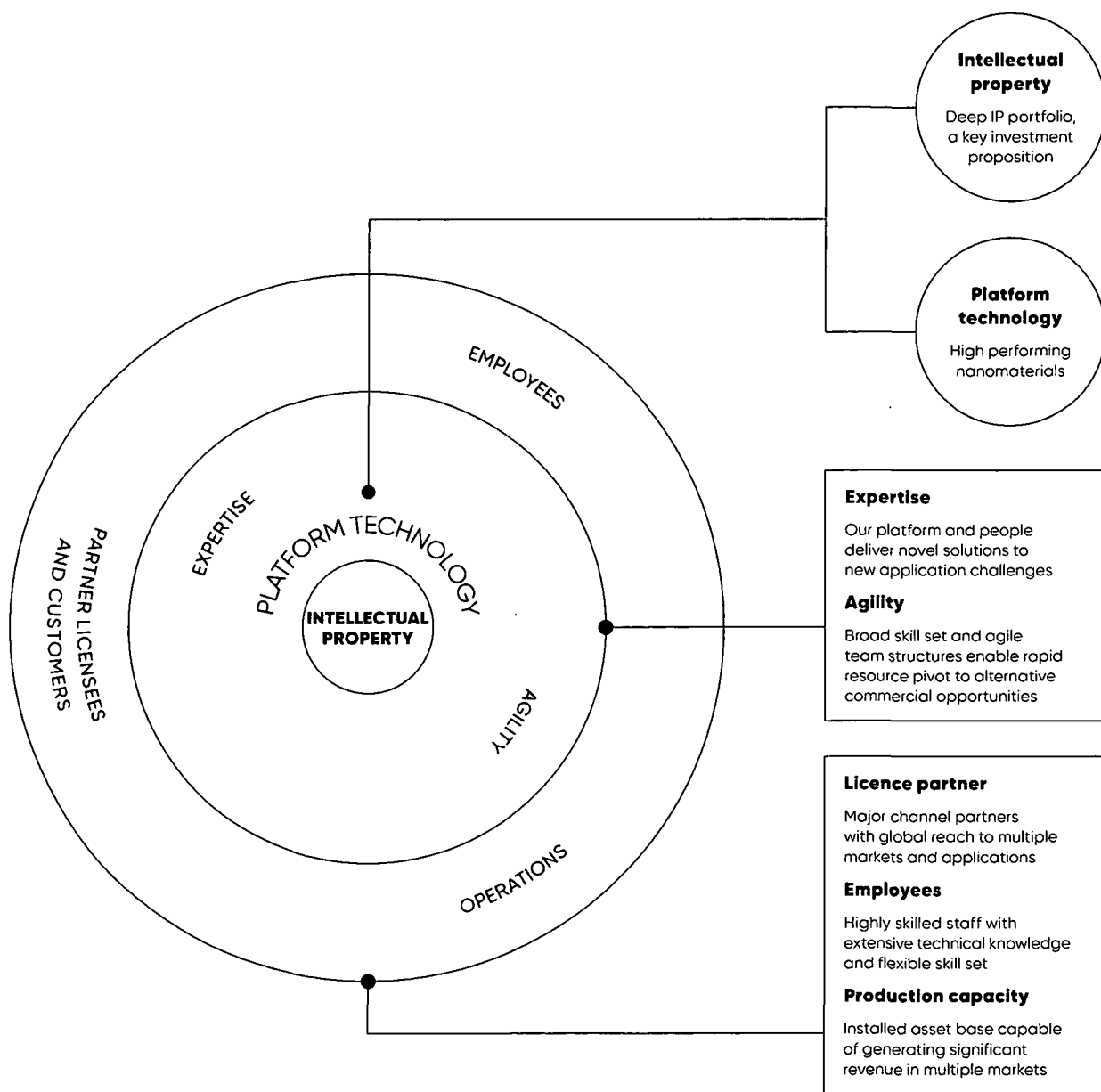
Having regard to specific stakeholder groups (s.172(1)(b) to s.172(1)(d))

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

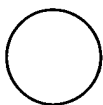
Impact of engagement	Engagement during the year
<ul style="list-style-type: none"> – Our employees feel empowered to achieve solutions to problems – Our employees feel like an asset to the business – We improve as our employees improve 	<ul style="list-style-type: none"> – In July 2021, we conducted an employee engagement survey to allow employees to provide feedback. As a result, management have a number of actions to improve engagement with employees – The management team were tasked with devising a bonus structure for the Company, which was successfully achieved – We consulted extensively on any redundancy programmes
<ul style="list-style-type: none"> – 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 	<ul style="list-style-type: none"> – Through the year, we actively engaged in weekly technical updates to aid development and collaboration – We discussed openly any logistical challenges due to Brexit and the Covid-19 pandemic, and took customer feedback on board when identifying areas for improvement
<ul style="list-style-type: none"> – 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 	<ul style="list-style-type: none"> – 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 – Maintained dialogue on availability of raw materials, and took action when there was a risk these could be compromised
<ul style="list-style-type: none"> – Compliance with regulatory requirements enables the business to operate in a safe manner, protecting our employees and the wider communities 	<ul style="list-style-type: none"> – Post year end, we completed our ISO recertification – Constant review of operating procedures to ensure best practice
<ul style="list-style-type: none"> – We aim to create long-term investor value, through growing from an R&D services business to a commercially viable niche production company 	<ul style="list-style-type: none"> – Engaged openly with shareholders through analyst briefings and subsequent Q&A sessions – The Company has signed up to Investor Meet Company to encourage engagement – Discussed at length options for further funding with our 2 largest shareholders in advance of year end, which resulted in the non-dilutive loan agreement being signed

Our business model

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



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.

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).

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 15 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 process 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. It is this extensive range of specialist skills which makes our team such a valuable asset which, when combined with our IP portfolio, helps generate a compelling investment proposition.

Production capacity

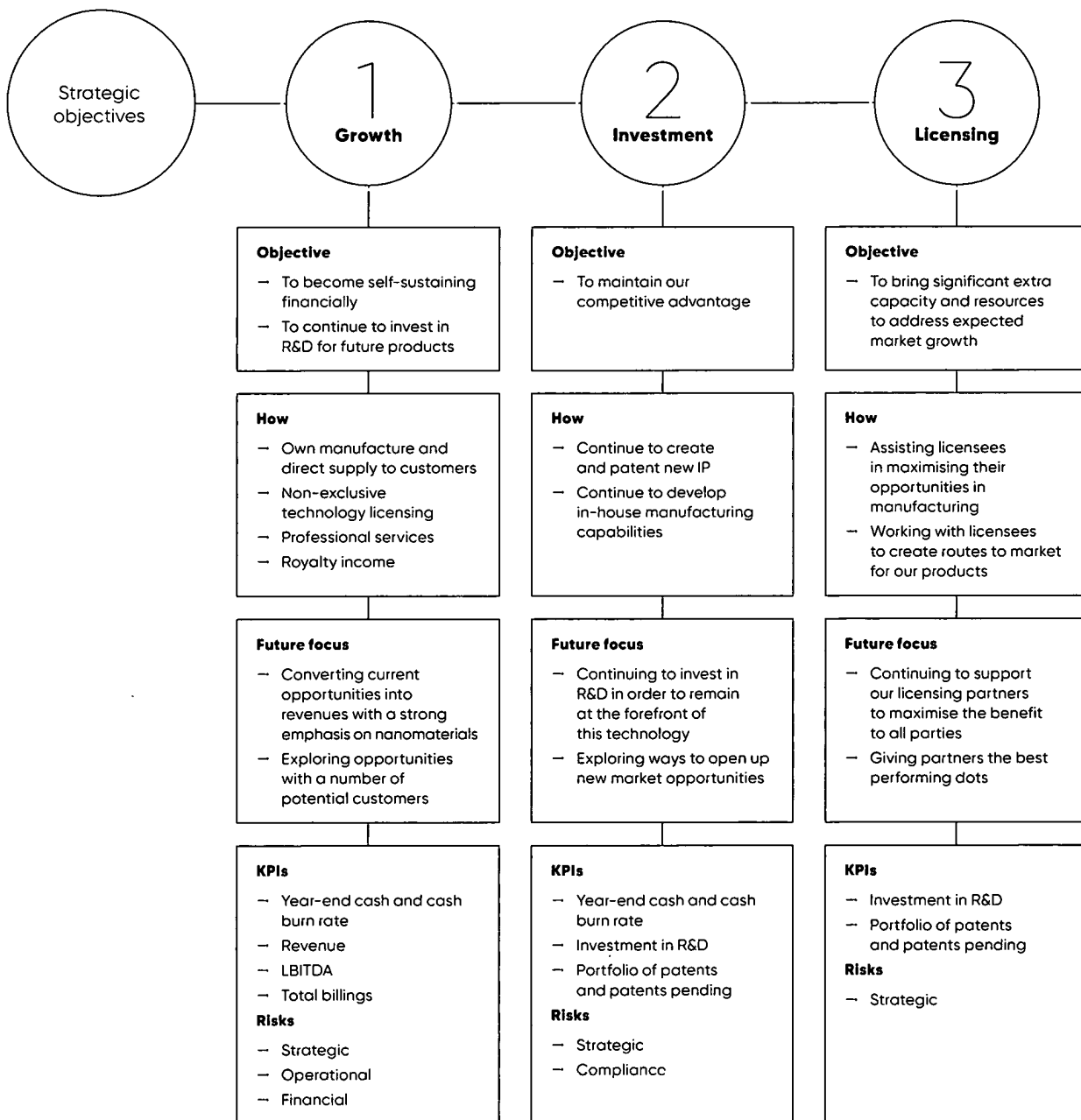
Our Runcorn production facility has two distinct production labs. One is focused on CFQD[®] quantum dots for use in display, lighting and life sciences. The other, new and recently completed facility, is focused on nanomaterials for use in infra-red sensing applications. In combination they create an 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.

ABOVE:

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

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

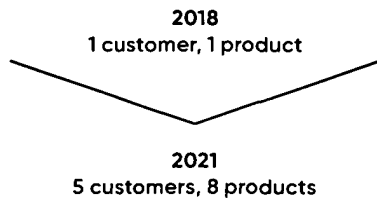


Infinite possibilities

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								
	<1.0 μm			1.0-1.3 μm			1.3-1.5 μm			>1.5 μm		
Wavelength	A	B	C	A	B	C	A	B	C	A	B	C
Material												
Customer	D											



Significant growth in customer engagement
 Three customers with "strategic" scale potential
 Delivering multiple materials at various wavelengths
 Customer published road maps imply 2023 production
 Goal: product in production in 2023, another in validation
 Debt facility funds more development and protective IP
 Typically three-year cycle from development to production

June 2021	NIR			SWIR								
	<1.0 μm			1.0-1.3 μm			1.3-1.5 μm			>1.5 μm		
Wavelength	A	B	C	A	B	C	A	B	C	A	B	C
Material												
Customer 1	V						O					
Customer 2		D						D				
Customer 3					D							
Customer 4		D						D				
Customer 5							D			D		

- D Development – material being created at R&D scale
- O Optimisation – material optimisation for specific customer application
- S Scale up – material being scaled up for Runcorn production
- V Validation – Runcorn material ready for customer plant validation
- P Production – material validated and ready for production ← Ultimate goal

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

Year-end cash
£ million

£3.8m
-26%

2021	3.8
2020	5.2
2019	7.0
2018	10.7
2017	5.7

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

Revenue
£ million

£2.1m
-46%

2021	2.1
2020	3.9
2019	7.1
2018	3.3
2017	1.3

Measurement

The value of goods and services recognised as income in accordance with IFRS 15 Revenue Recognition.

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

(£2.9m)
+4%

2021	(2.9)
2020	(2.9)
2019	(3.8)
2018	(6.2)
2017	(9.5)

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 improved marginally despite the near halving in revenue as cost savings offset the lost margin.

Strategy link 1

- Key**
Strategy link
- 1** Growth
 - 2** Investment
 - 3** Licensing

Billings
£ million

£1.7m
-32%

2021	1.7
2020	2.5
2019	9.6
2018	6.5
2017	1.1

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 in the year were significantly down reflecting the fall in revenue and also the fact that some FY21 revenue was invoiced in FY20. The team is working to win new business and restore billings to a healthier position.

Strategy link 1

Investment in R&D
£ million

£2.2m
-32%

2021	2.2
2020	3.1
2019	4.4
2018	4.0
2017	5.5

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

559
-24%

2021	559
2020	731
2019	745
2018	654
2017	600

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

Maintaining commercial and operational focus with a lower fixed cost base

BRIAN TENNER
Chief Executive Officer
(formerly Chief Operating Officer
and Chief Financial Officer)

Summary

- Cash remains our key focus – the debt facility entered into at the end of the financial year extends our organic cash runway through to H2 2022.
- We continue to monitor our costs closely, with monthly operating costs expected to reduce below £0.4 million in April 2022.
- Revenue and other operating income decreased by 43% to £2.3 million (2020: £4.0 million).
- Adjusted LBITDA has been maintained at £2.9 million (2020: £2.9 million) in spite of the reduction in revenue and other operating income.

Revenue and other operating income decreased by £1.7 million to £2.3 million (2020: £4.0 million). The reduction is due to the completion of the contract with the US Customer in the prior year.

Revenue from the sale of products and services rendered accounted for 95% (2020: 89%) of revenues with the balance being royalty and licence income.

Revenue from services has decreased from £3.0 million to £1.3 million as a result of the completion of the contract with the US Customer in the prior year.

Revenue from the sale of products was £0.7 million (2020: £0.4 million).

Billings have decreased by £0.8 million to £1.7 million (2020: £2.5 million), which is in line with revenue.

Operating expenses were reduced in the year by £1.6 million to a total of £6.7 million (2020: £8.4 million). This reduction was primarily due to the fall in payroll costs to £3.3 million (2020: £4.5 million) which resulted from:

- the full year impact of the prior year restructuring (£0.2 million);
- headcount reductions during the year (£0.3 million); and
- the impact of a Company-wide pay cut and the Government’s furlough scheme (£0.4 million).

In the prior year, we consulted with employees and reduced our headcount from 72 to c. 46 full-time employees. During the current year, our headcount was decreased further to approximately 39 employees (c. 37 Full Time Equivalents). We have made these changes whilst retaining full operational and commercial viability.

We are currently in the process of exiting our first floor premises at our Manchester offices, with the lease expiring in March 2022. This will save an additional £0.6 million per annum.

In July 2021, we agreed a non-dilutive debt facility with our two major shareholders worth £3.0 million net of costs. Cash at year end was £3.8 million, which reflects a £4.4 million consumption of cash before the impact of the debt facility. This is in part due to an adverse working capital movement in FY21, which we do not expect to repeat in FY22.

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

Highlights	2021 £ million	2020 £ million	% change
Turnover	2.1	3.9	(46%)
Adjusted operating loss	(4.6)	(4.8)	5%
Adjusted LBITDA	(2.9)	(2.9)	4%
Net loss	(4.4)	(5.1)	13%
Loss per share (p)	(1.44)	(1.77)	19%
Billings	1.7	2.5	(32%)
Cash and cash equivalents	3.8	5.2	(26%)

non-GAAP measures is shown in the table below:

	2021 £ million	2020 £ million
Operating loss	(5.0)	(5.9)
Share-based payment charge	0.4	0.4
Exceptional costs	–	0.7
Adjusted operating loss	(4.6)	(4.8)
Depreciation	0.5	1.1
Amortisation ¹	1.2	0.8
Adjusted LBITDA	(2.9)	(2.9)

1 Includes impairment of intangible assets.
The loss before tax was £5.1 million (2020: £6.0 million).

Exceptional costs

In the prior year, these exceptional costs related to the Formal Sales Process, the start of the litigation against Samsung, an equity fundraise and restructuring activities. They are set out in more detail in note 7 to the financial statements.

Taxation

The tax credit for the year is £0.7 million (2020: £0.9 million). The tax credit to be claimed, in respect of R&D spend, is £0.7 million (2020: £0.9 million). Overseas corporation tax was £nil during the year (2020: £nil). There was no deferred tax credit or charge (2020: £nil).

Cash flow and balance sheet

During the year cash, cash equivalents, deposits and short-term investments decreased to £3.8 million (2020: £5.2 million). The net cash outflow, excluding the benefits of the debt facility of £3.0 million in July 2021 (net of costs), was £4.4 million (2020: £5.0 million outflow). The decrease in cash outflows reflects the reduction in the cost base, which was offset by adverse working capital movements in the year. Tax credits of £0.9 million (2020: £1.1 million) were received during the year.

Expenditure incurred in registering patents totalled £0.4 million (2020: £0.6 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.

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.

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 2021 (2020: 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.

Financial review continued

Going concern

A key area is the assessment of going concern due to the existence of material uncertainty regarding the timing of adequate commercial production orders and the implementation of any necessary restructuring plans if those revenues are delayed. This may cast significant doubt about the Group's and the Parent Company's ability to continue as a going concern.

The debt issue in July 2021 raised £3.0 million net of costs. This extended the Group's organic cash runway to the second half of calendar year 2022. If the Group implemented an IP shell structure when the current contractual order book is exhausted in early H2 of FY22, the resulting cash runway for the IP shell would extend to the middle of 2023.

Considering the mitigating actions that can be taken and recent swift and robust actions to reduce our cost base, and after making enquiries and considering the uncertainty described above, the Directors have a reasonable expectation that the Group has access to adequate resources to continue in operational existence for the foreseeable future.

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

"Cash remains our key focus and constraint, and therefore we continue to explore cost saving opportunities whilst ensuring we deliver for our customers."

Prior year adjustment

The prior year Consolidated Statement of Comprehensive Income and the prior year Group Statement of Financial Position have both been restated for adjustments relating to prior years. Details of these adjustments are included in Note 30.

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.

Summary

Although a challenging year for a number of reasons, the Group has continued to develop products which provide the basis for organic growth.

We have shown our resilience and flexibility in being able to reduce our cost base but maintain our operational and commercial capabilities.

Our litigation against Samsung continues, and we look forward to hearing the results of the PTAB review of the five patents in question around May 2022. We believe a positive outcome in the litigation would result in a transformational award for Nanoco and its shareholders.

We are therefore confident that we have the means and the will to secure our medium-term future while our focus is firmly on pursuing near-term commercial opportunities.

Brian Tenner
Chief Executive Officer
3 November 2021

Cash and cash equivalents

£ million

2021	3.8
2020	5.2

Net decrease in cash explained by:

Investment in intellectual property

£ million

2021	0.4
2020	0.6

Considerate rationalisation of the patents has resulted in a decrease in patents granted and patents pending from 731 to 559.

R&D tax credit received

£ million

2021	0.9
2020	1.1

Our continued emphasis on R&D has resulted in a tax claim of £0.9 million (2020: £1.1 million) being repaid in the year.

Cash outflow from operating activities

£ million

2021	4.2
2020	3.5

Cash outflow from operating activities has increased due to adverse working capital movements.

Principal risks and uncertainties

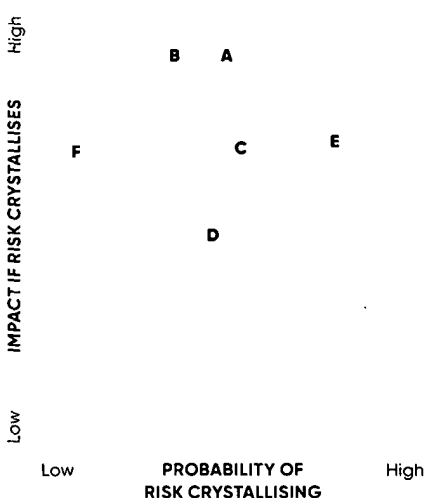
Managing risk in a dynamic business environment

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.

Likelihood and impact of principal risks



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 2021. 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.

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 mitigated in the short term by the recent debt facility which has maintained the Group's organic cash runway to H2 2022. This date can be extended for the operational side of the business with each new business win. In a severe but plausible scenario with no new business wins, this date can be extended

to mid 2023, though this would require further significant restructuring. Experience in the past three years has shown that the Board is ready and able to take prompt action to reduce costs should the need arise.

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 willful infringement of its IP. The Group is therefore exposed to the related positive and negative aspects of the litigation. Winning the litigation could create a significant increase in value for the Group in terms of any award or settlement but also in terms of increasing the likelihood of other future valuable licensing of the Group's IP.

Conversely, if the litigation is unsuccessful, this could undermine the perceived value of the Group's IP portfolio. The cost risk of the litigation if Samsung aims to delay and/or extend the length of the process has been significantly mitigated by the third party funding agreement that has been put in place whereby a large US litigation funding specialist pays the costs of the litigation.

In either outcome (successful or unsuccessful), the Board will initiate a further review of the future strategy of the business.

Principal risks and uncertainties continued

Risk description	Potential causes and impact	Mitigation	Change	Link to strategy	Risk
Strategic					
<p>A</p> <p>Outcome of Samsung Litigation</p> <p>Responsibility: CEO</p>	<p>The outcome of the Samsung litigation will have a significant impact on the Group. If the outcome is successful, the current damages models indicate a significant financial return to Nanoco. Conversely, if the outcome is negative, this could undermine the value of Nanoco's IP.</p>	<p>Nanoco's legal team and strategic advisor have significant experience in technology IP litigation.</p> <p>Our advisors and funder performed extensive due diligence on the strength of our case before they agreed to act for Nanoco.</p> <p>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.</p> <p>The Board is included in ongoing discussions with our lawyers to ensure Nanoco is up to date with proceedings.</p>	<p>–</p> <p>The risk has remained the same year on year. Whilst there is certainty around an outcome, the impact this could have on the Group is unknown and could be significant.</p>	<p>1</p> <p>3</p>	
<p>B</p> <p>Lack of market adoption of technology</p> <p>Responsibility: CEO</p>	<p>Market fails to commercially adopt technology incorporating the Group's nanomaterials.</p>	<p>The Group targets a wide range of potential applications.</p> <p>Working with industry leaders to differentiate products from current offerings.</p> <p>Making products commercially competitive.</p>	<p>▼</p> <p>Sensing projects moving closer to commercialisation.</p> <p>Expanded customer portfolio.</p> <p>Display volume will be stimulated with adoption in more TVs though we have seen price pressure to accompany this. Capacity expansion plans in place.</p>	<p>1</p>	
<p>C</p> <p>Customer concentration risk</p> <p>Responsibility: CEO/CTO</p>	<p>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 77% of revenue in FY21). These delays can then have a knock-on adverse effect on the Group's expected revenue streams.</p>	<p>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.</p> <p>In the past financial year, we have signed up a number of different customers.</p>	<p>▼</p> <p>The customer concentration within the Group has decreased during the financial year due to sales to a number of different customers.</p>	<p>1</p> <p>3</p>	
Operational					
<p>D</p> <p>Loss of key personnel</p> <p>Responsibility: CEO</p>	<p>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.</p>	<p>The Group offers rewarding careers that allow staff to develop new skills while pursuing interesting research ideas.</p> <p>The Group reviews remuneration to ensure that appropriate reward packages accompany the fulfilling work environment.</p>	<p>–</p> <p>Staff redundancies during the year increased uncertainty for the team. The debt facility will help to create a more stable environment.</p>	<p>1</p> <p>2</p>	

Key		
Risk change	Strategy	Risk
▲ Up	1 Growth	Acceptable
– Neutral	2 Investment	Review
▼ Down	3 Licensing	Unacceptable

Risk description	Potential causes and impact	Mitigation	Change	Link to strategy	Risk
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.	Cash will continue to be prudently managed.	–	1	
	The Group is unable to carry out its operations and hence cannot deliver on medium-term or strategic goals.	Focus on revenue-generating activities without abandoning worthwhile and focused R&D work. Cost reduction actions identified if necessary.	Material new business wins, third party funding for the Samsung litigation and the debt facility give a much more stable cash flow platform for the short.	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.	▼	1	
		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.	2	

In light of our revised "dot only" strategy and the focus of our activities on sensing opportunities, the Board has concluded that a number of historical risks should no longer be reported as "principal risks or uncertainties" due to their potential impact being much lower or of less relevance today. In some cases they remain as business as usual ("BAU") risks. Prior year risks no longer reported as principal risks are summarised below:

Risks	Treatment and rationale
Weak adoption or delays in take up of CFQDs	This risk has crystallised over a number of years. The active display market remains dominated by Samsung though new opportunities may arise with the passing of RoHS legislation.
Rapid product commoditisation	Prices for quantum materials for use in displays have already fallen significantly and show signs of bottoming out. Given the Group has not yet achieved significant commercial sales volumes, this is no longer considered a significant downside risk. Commoditisation of sensing materials is now being managed as a BAU risk.
Meeting product specifications	We have delivered multiple new nanomaterials in the last few years, achieving or exceeding all customer technical specifications – we now consider this a BAU risk.
Insufficient manufacturing capacity	Now treated as a BAU risk due to significant increases in Runcorn production capacity beyond potential demand levels in the medium term (c.£130 million maximum revenue capacity at current market pricing).
Legislation to ban cadmium is further delayed	The EU have received recommendation that the exemption on cadmium in displays cease and legislation to enact this is expected in the short term.

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. 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.

This assessment also includes the impact of Brexit and ongoing safety measures to

ensure staff can work safely in a Covid-19 secure environment or in the event of a further lockdown.

Changes during the year

In the fourth quarter of FY21, we announced a project extension with an important European electronics customer. This project began in May 2020, and builds on the products developed to date.

In the same quarter, we announced a development agreement for a project with a very significant Asian chemicals company. This project builds on feasibility work completed on the development of a potential new nanomaterial for the customer and the continued supply of a previously developed material.

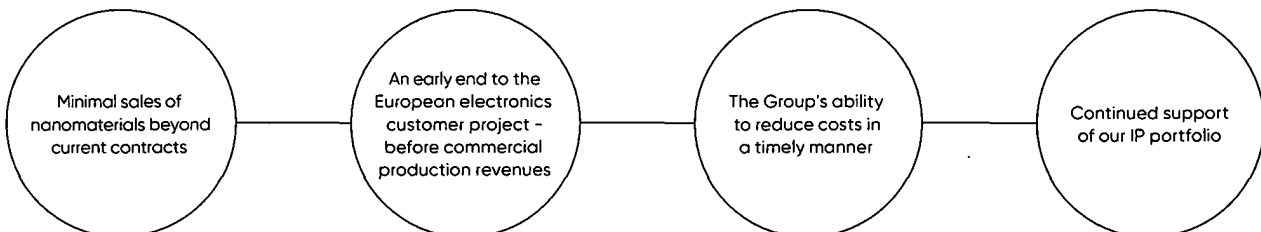
We continue to monitor our monthly costs, and our monthly cash burn is

c.£0.4 million before revenue and the R&D tax credit. We are in the process of vacating our first floor premises in Manchester, where the lease expires in March 2022, which will realise annualised savings of £0.6 million. We have managed to downsize our footprint in Manchester without compromising our operational capabilities as a result of the fall in headcount.

In July 2021, we announced a non-dilutive loan note subscription with our two major shareholders, raising net proceeds of £3.0 million. This extended our organic business cash runway to H2 2022, which is beyond the point when we expect to have visibility on commercial production orders and also beyond 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 2023 which take into account the Group's current and expected business activities, current cash resources (£3.8 million as at 31 July 2021), the contracted revenue for FY22, and the principal risks and uncertainties it faces. These inputs were then used to create a reasonably plausible downside stress test which included:



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.

A "severe but plausible" downside sensitivity analysis has been performed wherein the Group wins no more new revenues beyond those already under contract. In this downside scenario, significant management action would be required to reduce the Group's cost base and capital expenditure. However, even in this scenario, where no further commercial wins are achieved beyond those which are already contracted, the Group can take action in H1 2022 to protect our core IP assets while retaining viability as an "IP shell" while the Samsung lawsuit continues. No assumptions have been included with regards to further potential fund raising.

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 23.
- 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 2021 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. 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:

- the development programme with the European electronics customer is successful and subsequently leads to scale up of the product and thereafter to small scale commercial production in a low volume application;
- commercial services contracts are based on the existing pipeline of opportunities or agreements already in place;
- no revenue is assumed from other business lines though some small scale commercial deals are currently under discussion;
- the Group's variable costs remain in line with manufacturing activities;
- Board costs reflect the 35% deferment of Non-Executive Directors' fees as agreed;
- 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 base case produces a cash flow statement that demonstrates that the Group has sufficient cash throughout the period of the forecast.

However, the Board acknowledges that the base case includes an element of risk that some or all of these non-contracted projects may not convert to sales during the forecast period. Accordingly, the Board has considered the downside scenario in which no revenue, except that already contracted or under contractual negotiation, is achieved during the period.

In this downside scenario, management action to reduce the activities of the Group to an IP shell that supports the Samsung lawsuit, allows the Group to maintain a cash runway to the middle of 2023.

All of the potential cost savings are under the direct control of the Board and the Board has the ability and intention to make such changes on a timely basis if required.

Going concern conclusion

IAS 1 Presentation of Financial Statements requires the Directors to disclose "material uncertainties related to events or conditions that may cast significant doubt upon the Group's ability to continue as a going concern". The Directors consider that the timing of adequate commercial production orders and the implementation of any necessary restructuring plans if those revenues are delayed is a material uncertainty which may cast significant doubt about the Group's and the Parent Company's ability to continue as a going concern.

Nevertheless, considering the mitigating actions that are within management's control and can be taken and after making enquiries and considering the uncertainty described above, 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.

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.

Covid-19

Whilst essential work carried on at Nanoco through the lockdown period, staffing levels were much reduced due to the Government's staff retention scheme. 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.

Whole portfolio carbon generation (energy use)

	2021 tCO ₂ e	2020 tCO ₂ e	Change
Scope 2	Electricity	343	390 (12%)
	Natural gas	128	292 (56%)
Scope 3	Air travel	0	22 (100%)
	Total	471	(33%)

Intensity (tCO₂e/average number of employees)

	2021	2020	Change
	10.2	9.8	4%

Data notes

Reporting period	1 August 2020 to 31 July 2021
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

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.

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. However, given the impact of Covid-19, we have not been able to complete our annual HSL safety survey.

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 now 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.

Sustainability continued

Environment continued

Both of the above recommendations are 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.

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.

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.

Emissions in respect of the Group's US office are considered to be negligible. Our emissions, based on appropriate conversion factors published by the Department for Business, Energy & Industrial Strategy, for the current year are shown in the table on page 33.

Waste

During the year, the Group generated 7.6 tonnes of waste (2020: 28.6 tonnes) and recycled 2.9 tonnes of this (2020: 8.0 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. This has also been imperative to the Group continuing operations during the existing Covid-19 pandemic.

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.

23%

Employee length of service

46%

Key

0-4 years

5-10 years

> 10 years

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 39 employees at 31 July 2021, 23% had over ten years' length of service and a further 31% 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.

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.

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.

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.

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. 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,

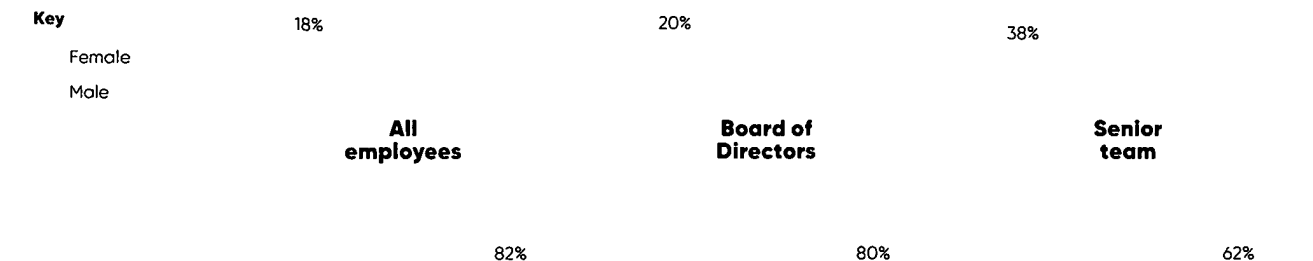
mental and social wellbeing. It is also required to have in place measures to mitigate as far as practicable factors that could harm employees' physical and mental wellbeing, which includes work related stress.

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 2021)



Equality and diversity

Racial and geographical diversity

The Group's employees are from many different backgrounds, including eight different nationalities: American, British, German, Indian, Italian, Lithuanian, Polish 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 has business development people solely in the UK, covering the US, Europe and Asia. Increasingly Nanoco seeks individuals with experience in the business and geographic markets in which the Group operates in order to support its employees and job applicants equally. 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.

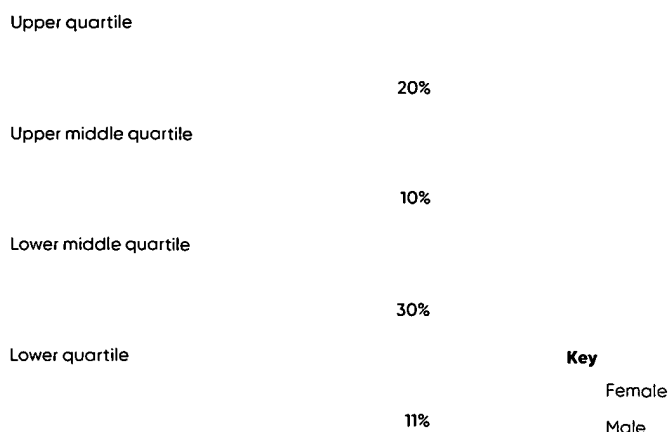
Nanoco is a member of the Chemical Industries Association ("CIA") and applies the principles of Responsible Care® to all of its operations.

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



Proportion of males and females in each income quartile



Gender pay gap

	Mean hourly earnings	Median hourly earnings
	£26.44	£22.06
	Total ¹	Total ¹
	£29.20	£21.70
	Male ¹	Male ¹
	£23.48	£23.08
	Female ¹	Female ¹

¹ Excluding NEDs.

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 2021. 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 2021, Nanoco employed 39 employees (2020: 71) in the UK, of whom 18% were female (2020: 20%). 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 NEDs is -6% (2020: 0%). This means that for every £1 the median man earns at Nanoco, the median woman earns £1.06. The national average pay gap in 2020 for all UK employees is 15.5%¹.

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
3 November 2021

Strategic report approval

The Strategic report on pages 6 to 37 incorporates:

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

Brian Tenner
Chief Executive Officer
3 November 2021

Board of Directors

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

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 executive and non-executive roles at quoted and private businesses. He is the CEO 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
(formerly Chief Operating Officer
and Chief Financial 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 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.

Key

A Audit Committee

N Nominations Committee

R Remuneration Committee

○ Chair

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 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 Deputy Chairman of Blue Prism Group plc and 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.

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 2021. This section of the Annual Report describes our corporate governance structures and processes and their application throughout the year ended 31 July 2021.

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 38 and 39. This was bolstered post year end by the appointment of Henry Turcan from Lombard Odier as a Non-Executive Director. This diverse skill set allows the Board to appropriately challenge and lead the Group's strategy.

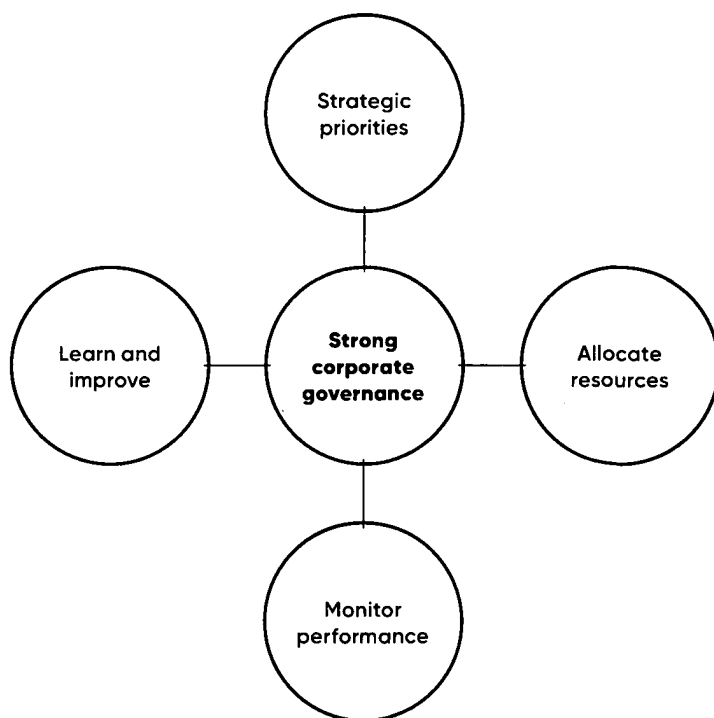
Board focus during the year

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 Chair and the Senior Independent Director, together with the CEO, CTO and the Litigation Special Advisor and meets monthly.



Attendance	Board	Audit Committee	Nominations Committee	Remuneration Committee
Number of meetings	11	4	3	3
Executive Directors				
Brian Tenner	●●●●●●●●●●●●	●●●● ¹	●● ¹	●●● ¹
Dr Nigel Pickett	●●●●●●●●●●●●	–	–	–
Non-Executive Directors				
Dr Christopher Richards	●●●●●●●●●●●●	●●●●	●●●	●●●
Dr Alison Fielding	●●●●●●●●●●●●	●●●●	●●●	●●●
Chris Batterham	●●●●●●●●●●●●	●●●●	●●●	●●●

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

¹ Brian Tenner attended these meetings by invitation and is not a member of these committees.

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. The Board believes that the Group's equity is currently under-valued and has agreed a non-dilutive debt fundraise with our two biggest shareholders, Lombard Odier Asset Management and Richard Griffiths. Restructuring efforts continued during the year stabilising our cash cost base at £0.4 million per month. The combination extends the Group's operational cash runway to H2 2022.

Overall management of risk and change within the Group

The rapidly evolving challenges brought about by Brexit and the Covid-19 pandemic against a background of Executive changes, have required active real-time engagement between all members of the Board. This has entailed a significant level of activity outside the formal Board meetings.

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 2021 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);
- CEO report on Samsung litigation and third party funding (focus item);
- UK FD 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.

Board composition		2	3
Executives	Non-Executives		
1			
Tenure (years)		1	3
0-5	5-10		>10
Performance evaluation			
Succession planning			
Board and Committee composition			

Corporate governance statement continued

A typical Board agenda continued

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 43 and 44. 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 settled 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 30 and 31.

Statement of compliance with the Code

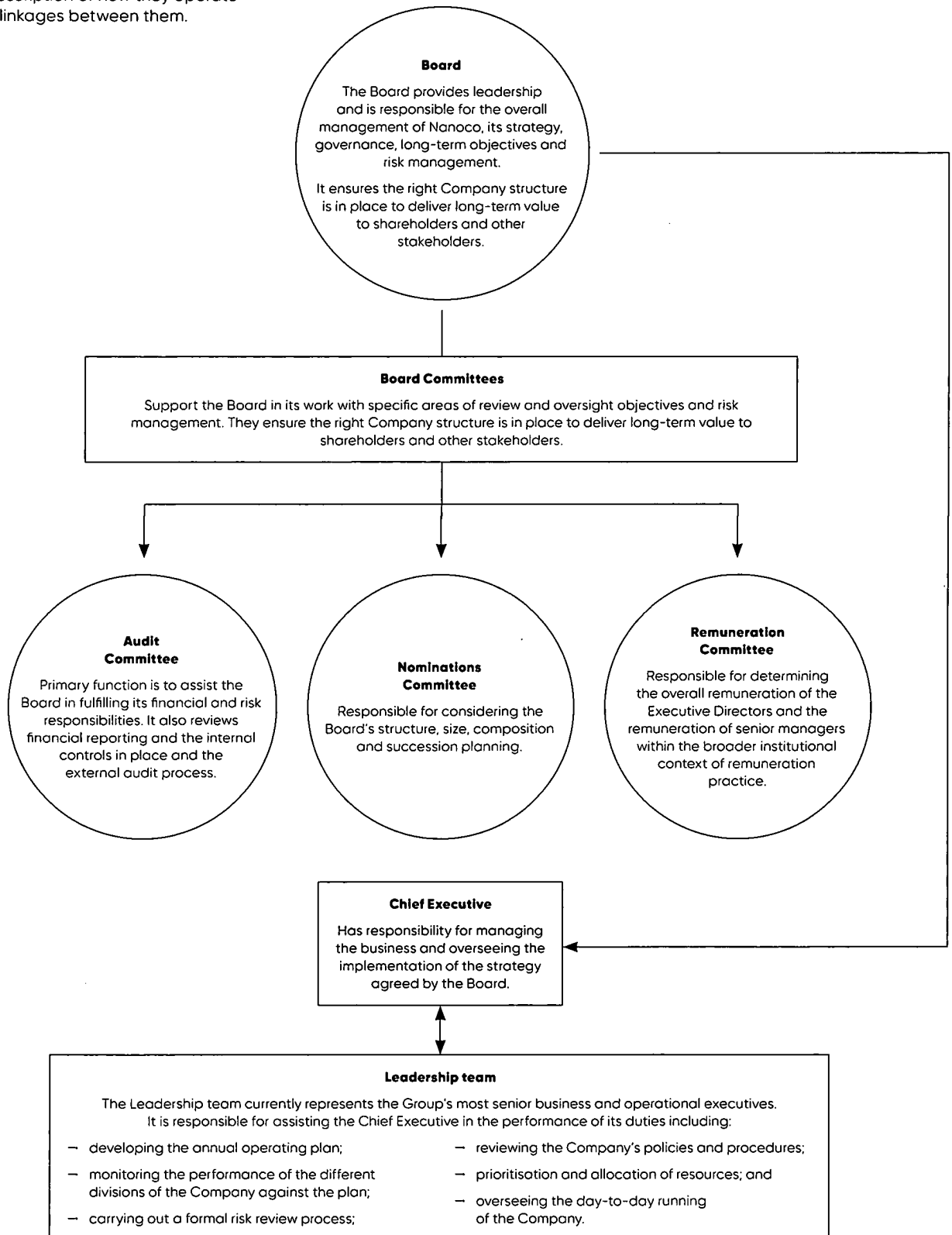
I am pleased to confirm that the Board considers that it has been in compliance with the Code throughout the year ended 31 July 2021 in all material areas.

With the changes in the Board in the financial year, which at year end comprised of the Non-Executive Chairman, two independent Non-Executive Directors and two Executive Directors, in addition to the appointment of another Non-Executive Director post year end, 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
3 November 2021

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.



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, Production Manager and UK Finance Director).
Chief Financial Officer (In transition)	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. Liam Gray, the UK Finance Director, has taken on the majority of these responsibilities to support the Board.
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
Dr Christopher Richards	●	●	●	●	–	●
Dr Nigel Pickett	●	●	–	–	–	–
Brian Tenner	●	–	●	●	●	●
Dr Alison Fielding	●	●	–	●	●	–
Chris Batterham	●	–	–	●	●	●
Henry Turcan	●	–	–	–	●	●

Dr Christopher Richards

Chairman
3 November 2021

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.	P38-39
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, P53-58
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, P32-37
Division of responsibilities	Page reference
F. The Chair is objective and leads an effective Board with constructive relations.	P38-39, P40-49
G. The Board comprises an appropriate combination of Non-Executive and Executive Directors, with a clear division of responsibilities.	P38-39
H. Non-Executive Directors commit appropriate time in line with their role.	P38-39, P40-49, P50-61
I. The Company Secretary and the correct policies, processes, information, time and resources support Board functioning.	P40-49
Composition, succession and evaluation	Page reference
J. There is a procedure for Board appointments and succession plans for Board and senior management which recognise merit and promote diversity.	P50-52
K. There is a combination of skills, experience and knowledge across the Board and its Committees. Tenure and membership are regularly considered.	P38-39, P41, P44
L. Annual evaluation of the Board and Directors considers overall composition, diversity, effectiveness and contribution.	P42
Audit, risk and internal control	Page reference
M. 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.	P53-58
N. A fair, balanced and understandable assessment of the Company's position and prospects is presented.	P80
O. 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, P30-31
Remuneration	Page reference
P. 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.	P59-76
Q. A transparent and formal procedure is used to develop policy and agree executive and senior management remuneration.	P59-76
R. Independent judgement and discretion is exercised over remuneration outcomes taking account of the relevant wider context.	P59-76

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 80 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 43 and 44 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 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.

Professional development continued

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 Non-Executive 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 62 to 75.

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 stand-alone 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 UK Finance Director.

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

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

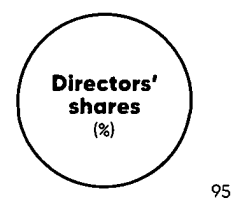
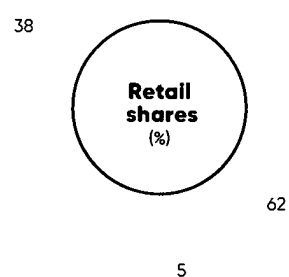
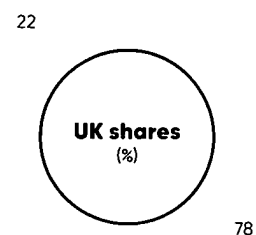
Shareholder analysis

Shareholders at 31 July 2021 are analysed as follows:

Territory	Shares	%
UK	239,490,866	78.34%
Europe (ex UK)	45,452,574	14.87%
North America	14,546,938	4.76%
Asia	4,038,994	1.32%
Rest of World	2,169,730	0.71%
Total	305,699,102	100%

Type of holder	Shares	%
Retail investors	189,679,301	62.05%
Hedge funds	60,895,891	19.92%
Pension funds	24,379,565	7.98%
Directors	15,076,119	4.93%
Trading	11,815,913	3.86%
Other	3,852,313	1.26%
Total	305,699,102	100%

Investment style	Shares	%
Retail	183,016,067	59.87%
Hybrid	82,661,386	27.04%
Directors	15,076,119	4.93%
Trading	9,279,375	3.18%
Value and growth	8,478,115	2.77%
GARP	415,000	0.14%
Other	6,323,040	2.07%
Total	305,699,102	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 Annual General Meeting 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 2020 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 are to be proposed at the 2021 AGM and that policy (if approved) will be effective for three years (until 31 July 2024).

No.	Resolution	Votes for			Votes against			Votes withheld	
		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	129,936,804	100.0%	42.5%	42,951	0.0%	0.0%	129,007	0.1%
2	To re-appoint the auditors	129,959,470	99.9%	42.5%	77,385	0.1%	0.1%	71,907	0.0%
3	Authority to agree the auditors' fee	129,932,774	99.9%	42.5%	97,923	0.1%	0.1%	78,065	0.0%
4	To re-elect Dr Christopher Richards	124,933,312	96.1%	40.9%	5,103,700	3.9%	1.7%	71,750	0.0%
5	To re-elect Brian Tenner	126,250,121	97.1%	41.4%	3,800,554	2.9%	1.2%	58,087	0.0%
6	To re-elect Dr Nigel Pickett	126,450,743	97.2%	41.4%	3,586,269	2.8%	1.2%	71,750	0.0%
7	To re-elect Dr Alison Fielding	129,828,965	99.8%	42.5%	210,047	0.2%	0.1%	69,750	0.0%
8	To re-elect Christopher Batterham	129,788,458	99.8%	42.5%	249,063	0.2%	0.1%	71,241	0.0%
9	Approval of Directors' remuneration report	126,104,908	97.1%	41.3%	3,809,333	2.9%	1.2%	194,251	0.1%
10	Approval for political donations	129,457,903	99.5%	42.4%	636,182	0.5%	0.2%	14,677	0.0%
11	Authority to issue and allot shares	129,797,072	99.8%	42.5%	265,146	0.2%	0.1%	46,544	0.0%
12 ¹	Disapplication of pre-emption rights	126,938,532	99.6%	41.5%	553,658	0.4%	0.2%	2,616,572	0.9%
13 ¹	Disapplication of pre-emption rights for specific investment purposes	129,757,103	99.8%	42.5%	232,664	0.2%	0.1%	118,995	0.0%
14 ¹	Authority to purchase own shares	129,926,268	99.9%	42.5%	160,267	0.1%	0.1%	22,227	0.0%
15 ¹	Reduced notice of general meetings	129,798,646	99.9%	42.5%	178,323	0.1%	0.1%	131,793	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

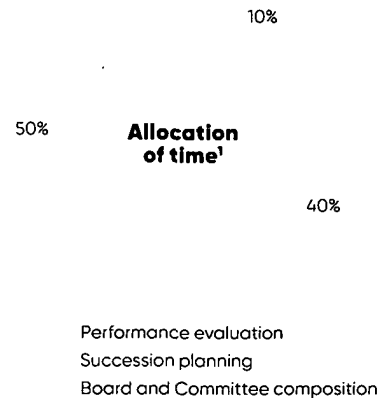
The Board believes deeply that strong, responsible and balanced leadership with an appropriate mix of skills for the challenges the Group faces is critical to creating long-term shareholder value and business success. The Committee met five times during the year.

Roles and responsibilities

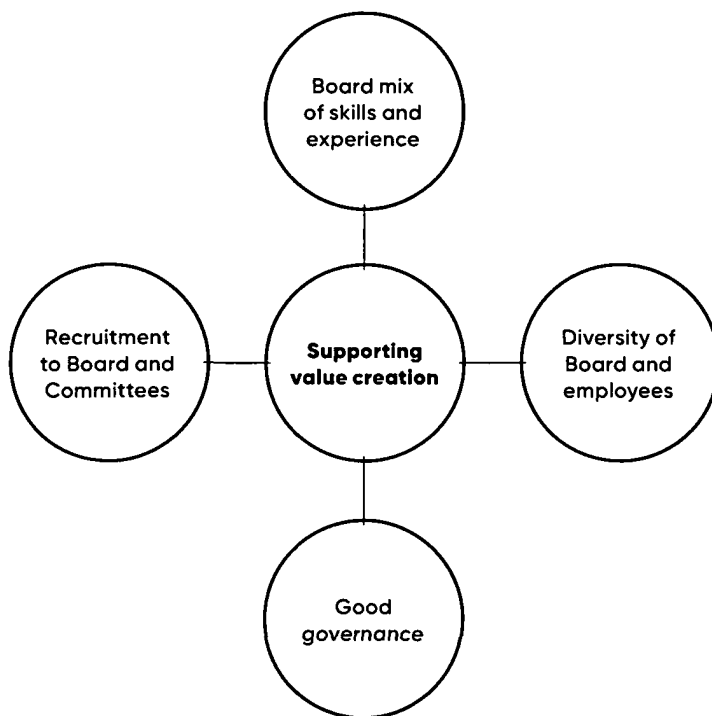
The Committee is primarily responsible for assisting the Board in ensuring the appropriate composition of the Board and any Committees of the Board. It is also responsible for periodically reviewing the Board's structure and identifying potential candidates to be appointed as Directors or Committee members as the need may arise within the parameters illustrated below:

Members

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



1 Estimated.



Roles and responsibilities

The Nominations Committee is responsible for evaluating the balance of skills, knowledge and experience and the size, structure and composition of the Board and Committees of the Board, and retirements and appointments of additional and replacement Directors and Committee members, and makes appropriate recommendations to the Board on such matters.

Governance

The responsibilities of the Committee include an additional focus on governance. This change was made in order to enhance the Group's improvement plans for governance issues. The Committee's terms of reference now 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 is 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 38 and 39.

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 meetings are occasionally attended on an invitational basis by the Chief Executive Officer 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 else on an ad hoc basis such as during a recruitment process. The Committee Chair provides the Board with a full briefing on all relevant matters.

Committee activities during the year

During the year the Nominations Committee discussed a range of topics including Board structure, its independence and skill set. In addition, the Committee discussed options to enhance employee engagement with the Board, in line with recent trends in corporate social responsibility. The key activities are set out in more detail below.

Board structure

Given the Group's strategy, and considering both the scale and commercial focus of the business, as well as the available financial resources, the Committee discussed the appropriate shape, size and skill set of the Board for its future operations. Our discussions aimed to ensure that the future cost and governance benefits of a larger Board are balanced against the need to extend the Group's cash runway and to ensure that the Group remains a going concern.

The composition where the majority of the Board are Non-Executive Directors will also further the Group's maintenance of high standards of corporate governance.

Board membership

In prior year, notice had been served on Dr Michael Edelman (CEO) and Dr Nigel Pickett (CTO) in April 2020. Whilst Michael Edelman stepped down in September 2020, Nigel Pickett's notice was rescinded, and Nigel agreed to a reduced notice period of six months. This action was taken to reduce the potential incremental costs arising from the original twelve-month notice period in the event that the Group was unable to source adequate additional funding or new commercial revenues.

Nominations Committee report continued

Committee activities during the year continued

Board membership continued

Following the successful issue of loan notes in advance of the year end, the Board concluded that more financial market experience would be advantageous, and, post year end, Henry Turcan, a representative of our largest shareholder, Lombard Odier Asset Management, was appointed as a Non-Executive Director.

Employee engagement

In the prior year, the Committee concluded that we would establish an employee representative body which would 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). That Committee met very effectively during the year, both formally and informally, with a focus on meetings and open question and answer sessions during challenging times within the business, such as business restructuring.

During the year, the Company performed an employee engagement survey to assess where employees felt there were deficiencies, both within the business and management. Whilst the results were encouraging, there are areas for improvement which will be acted upon in the next financial year. We continue to welcome employee feedback and will look at how this can be continually improved.

Diversity

The Group pursues diversity, including gender diversity, throughout the business. 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. 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 32 to 37.

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
3 November 2021

Maintaining a robust internal control and risk management framework at a time of heightened business uncertainty and funding constraints

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 38 and 39.

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 UK Finance Director. 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:

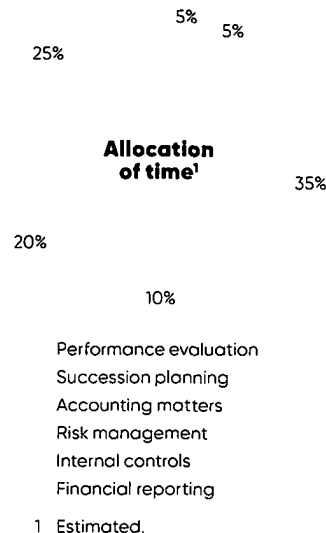
Committee member	Meetings/attended
Chris Batterham (Chair)	4/4
Dr Alison Fielding	4/4

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



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

Continued improvements in the quality, relevance and timeliness of information being provided to the Committee and the Board as a whole have allowed an enhanced level of 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 here 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.

Our 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.

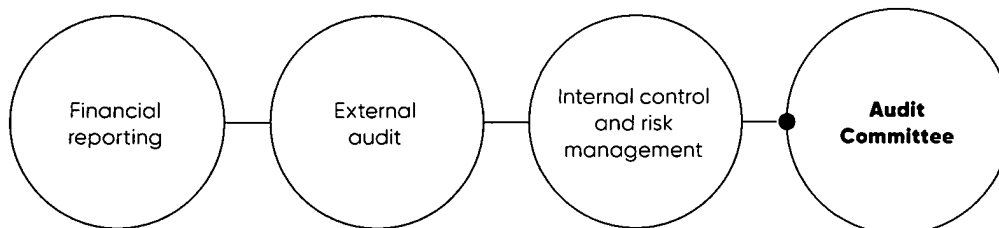
Internal control and risk management

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;
- 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 also 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 but also by reference to an individual component. 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, are 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 and subsequent extension with the European electronics customer was the most material source of revenue in the year. This project was ongoing at 31 July 2021, and so management reviewed the terms of the contract and recognised 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 and hence 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 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 value of £2.9 million (2020: £3.7 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 £0.6 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 of territories where prosecution of IP rights is more difficult.

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
Going concern	Judgement and estimate	High	High
Carrying value of intangible assets	Estimate	Medium	Medium

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, although it acknowledges that there is a material uncertainty in relation to the timing of adequate commercial production orders and the implementation of any necessary restructuring plans. 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 27 to 31.

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 CEO 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 Board determined that the Annual Report and Accounts is fair, balanced and understandable.

External audit

External audit plan

The Committee reviewed the proposed audit plan. The Committee was satisfied that the areas of audit risk highlighted by PwC were appropriate and included all material matters. The Committee subsequently reviewed the actual audit report by PwC 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. With the change in auditors, the current lead engagement partner is in their third 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.

The audit was last tendered in 2018, and PwC were appointed. This is their third year as external auditors of the Annual Report and financial statements.

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.

In light of the above, the stage of development of the Group, and its limited resources, the Committee agreed with management that an internal audit function would be premature. But this will be reviewed annually.

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;
- (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.

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

Audit Committee report continued

Internal controls and risk management continued

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.

The Committee received one alleged whistleblowing report during the year which was independently investigated by one of the Non-Executive Directors. The alleged matter was found to have no basis whatsoever and related more to a human resources issue which was subsequently satisfactorily resolved. 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 Board continues to believe that the system is effective in safeguarding shareholders' interests and the Group's assets. Such a system can only provide reasonable and not absolute assurance against material misstatement or loss, nor can it eliminate the risk of failure.

Prior year restatement

The Committee reviewed the circumstances around the prior year restatement. The Committee was satisfied that in respect of share based payments, management had followed independent advice on how to account for the payments since the Deferred Bonus Plan was adopted in 2015. The Committee was also satisfied that management had responded appropriately to the change in advice and that the prior year adjustment was correctly calculated and disclosed. The Committee also reviewed the situation leading to an increase in the opening provision for potential property dilapidations costs which arose following the decision to exit the first floor of the Manchester facility and the associated estimate of exit costs. Management also updated the estimated in respect of the other Group leasehold properties. The Committee was satisfied that the accounting and disclosures in respect of this aspect of the prior year adjustment were also correct. The Committee was satisfied that management have now included additional annual procedures to reduce the likelihood of such an event recurring. In addition, the finance team regularly attend technical training updates to stay abreast of changes in reporting and accounting standards.

The Committee notes any control improvement opportunities identified by the external auditors and oversees management's responses to these items.

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 performance of the new UK Finance Director following the transition of the CFO into the role of CEO and are 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.

Christopher Batterham
Audit Committee Chair
3 November 2021

Maintaining an appropriate cost base whilst retaining and incentivising management, in line with our 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 2021. 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 2022;
- (2) the Directors' remuneration policy setting out a revised framework for approval at this year's AGM; and
- (3) the Annual report on remuneration, which sets out the actual Executive remuneration over the year ended 31 July 2021.

Our remuneration policy is designed to promote the long-term success of the business by ensuring a focus on performance related pay that drives our transformation from an R&D focus to a commercial production focus and provides a clear emphasis on long-term sustainable performance. 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 2021 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

During the prior year the Group took a number of actions to reduce our cost base and to extend our cash runway. This included 35% reductions to Non-Executive Directors' fees and 20% salary reductions for the Executive Directors, both taking effect on 1 April 2020. Full pay for the Executive Directors was reinstated in April 2021. At the same time, the Non-Executive Directors' 35% reduction became a deferral until a significant improvement in the Company's financial position occurs, at which point the reductions will be made whole. The CTO's (Dr Nigel Pickett) notice served in April 2020 was rescinded, and reduced to six months to reduce the cost implications of any potential future rationalisation of the Company.

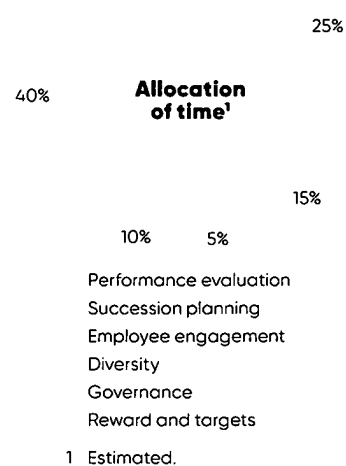
During the year, the Chairman continued to defer the second increase in his fees that had been agreed in the prior year. This was in addition to the 35% reduction applied to all Non-Executive Directors.

On 1 September 2020, Michael Edelman stepped down from his position as CEO and from the Board, and was replaced by Brian Tenner. The payments associated with ceasing to hold office were disclosed in the relevant section of the prior year annual report.

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

Members

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



Relating remuneration to current business performance

The Committee has at all times been fully cognisant of the need to show leadership in Executive and Board remuneration at a time when a significant number of staff have been furloughed during the Covid-19 pandemic 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, the Group's financial resources mean that variable reward has been limited and the focus in the new financial year will be on non-cash incentives that are closely aligned to shareholder objectives.

Remuneration Committee report continued

Directors' remuneration policy

Our remuneration policy was last approved at the 2018 Annual General Meeting (with a small amendment in December 2019). The current policy was applied during the year ended 31 July 2021, as described in the Annual report on remuneration and as summarised below.

Element	Implementation in the year ended 31 July 2021
Base salary	No change to policy. The Executive Directors' salaries for the new financial year were frozen at the same level as last year, with the 20% salary reductions removed in March 2021.
Benefits	No change to policy. Life insurance is the only benefit currently provided.
Retirement benefits	No change to policy. Contributions remain at 5% of salary (a policy limit of 10%).
Annual bonus	No change to policy. Maximum 100% 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 element only payable if at least one financial target is achieved.
LTIP	No change to policy. Normal maximum remains at 100% of salary (up to 250% in exceptional circumstances).
Shareholding guideline	No change to policy. All Executive Directors to acquire and retain shares with a value equal to 200% of salary (increased in 2018 from the 100% level for others than the CEO in the 2015 policy).
Other changes	No change to policy. Malus and clawback provisions were extended in the policy approved in 2018 to permit the application of malus and clawback in the event of a material corporate failure.

We are proposing the following key changes to our Executive Directors remuneration policy, which is to be put forward for shareholder approval at the 2021 AGM. This new policy will be in place for three years:

Element	Changes, rationale and summary of proposed policy
Base salary	Whilst Executive Directors' salaries were frozen, it was agreed that, reflecting the change in position, the CEO (Brian Tenner) would receive a salary increase up to £250,000 in FY22, which will further increase to £275,000 in FY23. There are no other proposed changes to base salary.
Benefits	No change to policy. Life insurance is the only benefit currently provided.
Retirement benefits	These will increase in line with the Company policy on pension contributions for all staff. They increased to 6% with effect from 1 August 2021, and the Company is looking to increase them further to 7.5% over the coming years (again in line with all staff). Policy limit of 10% remains.
Annual bonus	Maximum increased to 125%. 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 element 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	Maximum increased to 150% of salary (up to 250% in exceptional circumstances, latter unchanged). The Committee retains discretion to override formulaic outturns where circumstances require. In connection with the increase in the LTIP limit, a resolution to approve the amendment of the LTIP plan rules will be proposed to shareholders at the 2021 AGM.
Shareholding guideline	No change to policy. All Executive Directors to acquire and retain shares with a value equal to 200% of salary (increased in 2018 from the 100% level for others than the CEO in the 2015 policy).
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	No change to policy. Malus and clawback provisions were extended in the policy approved in 2018 to permit the application of malus and clawback in the event of a material corporate failure.

The Committee aims to provide total remuneration that retains and incentivises our Executives, whilst reflecting our constrained financial position. Given Executive base cash pay remains in the lower quartile of the Company's comparators, the Committee concluded higher variable elements of Annual Bonus and LTIP are necessary and appropriate to retain and incentivise Executives, as well as strongly aligning their interests with those of shareholders. 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.

Directors' remuneration policy continued

Engaging with shareholders

Before finalising the new Remuneration Policy, the Committee consulted with shareholders on the new policy. I would like to take this opportunity to thank all the shareholders for their time spent engaging with us and providing commentary on our proposed changes to our Directors Remuneration Policy. Through this consultation process, the Committee was pleased to receive support for the main structural changes to our Remuneration Policy. In particular, shareholders were supportive of the increased incentive and retention as a result of increasing the maximum LTIP award.

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 2021 and how the Directors' remuneration policy will be operated for the year commencing 1 August 2021. This section of the report will be subject to an advisory vote at the 2021 AGM.

Remuneration decisions in respect of the year ended 31 July 2021

As referred to in the 2020 Directors' remuneration report, our Executive Directors' salaries for the year ended 31 July 2021 were maintained at the same level, with no inflationary increase. In addition, the Executive Directors continued with a 20% reduction in salaries, until 1 April 2021 when unreduced salaries returned.

The 2021 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 all personal objectives had been achieved by both Executive Directors, in addition to the threshold attainment of the financial targets. Further information is set out on page 71.

The LTIP awards granted in October 2018 failed to achieve their performance targets for the three years ending 31 July 2021 and consequently lapsed. No other long-term incentive awards vested. Further LTIP information is set out on page 72.

Long-term incentive awards were granted in the year under the LTIP and further information is set out on page 72. No other long-term incentive awards were issued.

Remuneration in the year commencing 1 August 2021

Subject to approval at the AGM the new Directors' remuneration policy will be applied as follows in the year commencing 1 August 2021:

- The Board approved an increase in salary for the CEO, Brian Tenner, raising his salary to £250,000 effective from 1 August 2021. This reflects his change in position in the prior year, from CFO/COO to CEO. No other changes to Executive salaries are proposed.
- The freeze in the base salary of the other Executive Director is in line with the decision for staff wages generally.
- For the year commencing 1 August 2021, employer pension contributions above the amount of any salary sacrifice (and the associated employer National Insurance contribution savings) will be capped at 6% of salary.
- The annual bonus opportunity for Executive Directors will increase to 125% of salary, subject to the achievement of stretching performance conditions. The details of the proposed targets, to the extent they are not disclosed on page 75 and 76, will be disclosed once they are not commercially sensitive.
- LTIP awards for the year commencing 1 August 2021 will be set in line with the proposed new 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 Committee notes the lapsing in full of the awards made in 2018 and that no awards were made in 2019. The

intended awards to be made to the Executive Directors in October 2021 are set out in the relevant sections of this report. The targets and weightings for any award in FY22 will be announced if and when any awards are made.

- Non-Executive Director fees will remain subject to the 35% deferral implemented on 1 April 2021. This will remain in place until further notice. Should the financial circumstances of the Company improve significantly, the 35% deferral will be made whole. The second increase in the Chairman's underlying fees (before the 35% reduction) also remains on hold.
- Under the updated Corporate Governance Code the Committee is required to develop a post-employment shareholding policy. As part of the proposed changes to the Directors' remuneration policy put forward for approval at the 2021 AGM, we are proposing a post-employment shareholding requirement of 200% of salary in the first year post employment, which decreases to 100% of salary in the second year post employment.

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
3 November 2021

Directors' remuneration report

Directors' remuneration policy

This part of the report sets out our new forward-looking Directors' remuneration policy that will be presented for approval by shareholders at the 2021 AGM and, if approved, will apply to payments made after that date and will replace the existing remuneration policy in its entirety. It is intended that the new remuneration policy will apply for three years, although the Committee may seek approval for a new policy at an earlier point if it is considered appropriate. The Directors' remuneration policy is not audited.

Element and purpose	Operation	Maximum opportunity	Performance measures
<p>Base salary (no policy change)</p> <p>Core element of fixed remuneration that provides the basis to recruit and retain talent necessary to deliver the business strategy.</p>	<p>Normally reviewed annually; applied from 1 August (or more frequently if required).</p> <p>Consideration is given to the following:</p> <ul style="list-style-type: none"> – the role, responsibility and experience of the individual; – corporate and individual performance; – market comparators such as equivalent roles – by size and complexity; and – other Nanoco salary increases. 	<p>No maximum. Annual increase normally in line with the wider workforce. Larger increases:</p> <ul style="list-style-type: none"> – 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
<p>Benefits (no policy change)</p> <p>Provide a market-competitive benefits package and promote the wellbeing of employees.</p>	<p>The Company provides life assurance of eight times salary, for all Executive Directors.</p> <p>Directors are reimbursed for out-of-pocket expenses incurred on Company business and any associated tax where the expenses are wholly and necessarily for business purposes.</p> <p>Benefits are reviewed periodically, taking individual circumstances into consideration. Benefits provided may include, for example, medical insurance, relocation expenses, expatriate allowances and travel expenses.</p>	<p>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.</p>	N/A
<p>Retirement benefits (no policy change)</p> <p>Provide market-competitive post-employment benefits to recruit and retain Directors of the calibre required for the business.</p>	<p>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.</p> <p>Executive Directors are also eligible to participate in the Company's defined contribution scheme (or such other pension plan as may be deemed appropriate). In appropriate circumstances, such as where the lifetime allowance is protected, Executive Directors are permitted to take an equal cash supplement (this would not count towards the bonus or LTIP opportunity).</p>	<p>For the year commencing 1 August 2021, employer pension contributions above the amount of any salary sacrifice and employer NIC saved will be capped at 6.0% (2020: 5.0%) of salary in line with all employees.</p> <p>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.</p>	N/A

Directors' remuneration policy continued

Element and purpose	Operation	Maximum opportunity	Performance measures								
<p>Annual bonus (policy change)</p> <p>Rewards and incentivises the achievement of annual objectives which are aligned with key financial and strategic goals that support the enhancement of shareholder value.</p>	<p>Performance targets are set annually and payout levels are determined after the year end following the Committee's assessment of actual performance against set targets.</p> <p>Up to 100% of any bonus earned can be paid in deferred shares under the DBP which vest after two years and the balance is awarded in cash.</p> <p>Deferred share 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.</p>	<p>Maximum annual bonus opportunity is 125% of salary.</p> <p>The percentage of maximum bonus payable for the different levels of performance would be no greater than:</p> <table border="1"> <tr> <td>Below threshold</td> <td>0%</td> </tr> <tr> <td>Threshold</td> <td>25%</td> </tr> <tr> <td>On-target</td> <td>60%</td> </tr> <tr> <td>Maximum</td> <td>100%</td> </tr> </table> <p>On-target performance pays out at 60% (and not 50%) as the Committee includes an element of stretch when setting targets.</p>	Below threshold	0%	Threshold	25%	On-target	60%	Maximum	100%	<p>Stretching performance targets are set each year, reflecting the business priorities that underpin Group strategy.</p> <p>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. Personal bonus element only payable if at least one financial target is achieved.</p> <p>The Committee retains discretion to apply different weightings in relevant circumstances, and to override formulaic outturns where circumstances require.</p>
Below threshold	0%										
Threshold	25%										
On-target	60%										
Maximum	100%										
<p>Long Term Incentive Plan ("LTIP") (policy change)</p> <p>To reflect stakeholder philosophy, provide a longer-term retention mechanism and provide alignment with shareholders.</p>	<p>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.</p> <p>Under the LTIP, there will be no retesting of performance following the end of the performance period.</p> <p>After the end of the performance period the vested awards would normally be subject to a two-year holding period.</p> <p>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.</p>	<p>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:</p> <table border="1"> <tr> <td>Below threshold</td> <td>0%</td> </tr> <tr> <td>Threshold</td> <td>25%</td> </tr> <tr> <td>On-target</td> <td>60%</td> </tr> <tr> <td>Maximum</td> <td>100%</td> </tr> </table> <p>On-target performance pays out at 60% (and not 50%) as the Committee includes an element of stretch when setting targets.</p>	Below threshold	0%	Threshold	25%	On-target	60%	Maximum	100%	<p>The vesting of LTIP awards is subject to the satisfaction of performance targets set by the Committee.</p> <p>The performance measures are reviewed regularly to ensure they remain relevant but will be based on financial measures which link directly or indirectly to the creation of shareholder value (such as share price, revenue and EPS) and/or the achievement of strategic milestones.</p> <p>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.</p>
Below threshold	0%										
Threshold	25%										
On-target	60%										
Maximum	100%										
<p>Shareholding requirement</p> <p>To align Directors to shareholder interests.</p>	<p>In service requirement</p> <p>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.</p> <p>Post-employment requirement</p> <p>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.</p>	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, a 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).

Under the 2015 LTIP, at any time prior to the end of the holding period for LTIP awards, the Committee in its discretion may reduce, cancel or impose further conditions on LTIP awards which have not yet been released in the event of a material misstatement of the Group's financial results, a material misconduct on the part of the participant, a material corporate failure as determined by the Board or a material failure of risk management by the Group, or in the event of serious reputational damage.

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, whilst the balance will be 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

As detailed in the prior year Directors remuneration report, the Committee has opted for any potential LTIP award in 2021 to be based on share price growth which has the benefit of being absolutely aligned to long-term shareholder interests and is not subject to the same risk of unearned reward or absence of reward due to unforeseen one-off significant contracts. It is the Committee's view that this is the most appropriate performance measure at present for determining LTIP vesting for the awards on the basis that share price growth is a key measure of value delivered to shareholders and should reflect the achievement of commercial milestones. This ensures that this element only vests where significant value is delivered to shareholders.

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 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, including 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, unless the Committee determines that an alternative basis should apply but 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 pages 64 and 65, 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.

Directors' remuneration policy continued

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. For other employees, the same remuneration principles are applied and the Company aims to provide a remuneration package that is competitive in an employee's country of employment and which is appropriate to promote the long-term success of the Group.

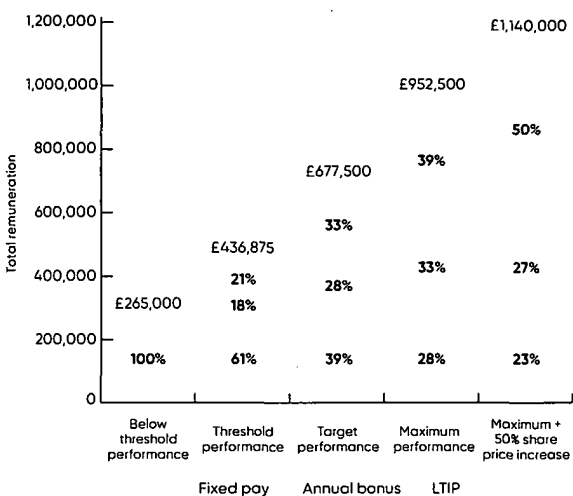
Remuneration outcomes in different performance scenarios

The charts below set out an illustration of the remuneration policy for FY22. 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.

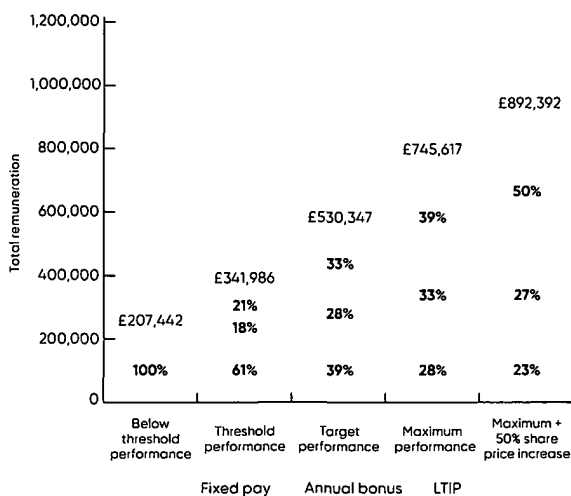
Five scenarios have been illustrated for each Executive Director:

Below threshold performance	Fixed remuneration No annual bonus payout No vesting under the LTIP
Threshold performance	Fixed remuneration 25% annual bonus payout (31.25% of salary) 25% vesting under the LTIP (37.5% of salary)
Target performance	Fixed remuneration 60% annual bonus payout (75% of salary) 60% vesting under the LTIP (90% of salary)
Maximum performance	Fixed remuneration 100% annual bonus payout (125% of salary) 100% vesting under the LTIP (150% of salary)
Maximum + 50% share price increase	Fixed remuneration 100% annual bonus payout (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



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 2021:

	Current base salary	Benefits ¹	Pension ²	Total
Chief Executive Officer – Brian Tenner	£250,000	–	£15,000	£265,000
Chief Technical Officer – Dr Nigel Pickett	£195,700	–	£11,742	£207,442

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 6% employer pension contribution/cash supplement in lieu of pension which applies for the year ended 31 July 2022.

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.	<p>The Chairman's fee is determined by the Committee and the fees of the other Non-Executive Directors are determined by the Board.</p> <p>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.</p> <p>Overall fees paid to Non-Executive Directors will remain within the limits set by the Company's Articles of Association.</p>	<p>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.</p> <p>The Non-Executive Directors do not participate in the Company's annual bonus, share plans or pension schemes.</p>

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;
- 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 62 and 63.

Directors' remuneration policy continued

Remuneration policy on recruitment continued

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. The duration of directors' service contracts is disclosed on page 76. 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	<p>Determined in accordance with the rules of the DBP.</p> <p>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.</p> <p>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.</p>

Directors' remuneration report continued

Directors' remuneration policy continued

Payment for loss of office continued

Element	Policy
LTIP	<p>Determined in accordance with the rules of the shareholder approved LTIP.</p> <p>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.</p> <p>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.</p>
Mitigation	<p>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.</p>
Other payments	<p>In appropriate circumstances, payments may also be made in respect of accrued holiday, outplacement and legal fees.</p>

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 wide participation in 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 2018 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 is being put forward for approval at the 2021 AGM.

Annual report on remuneration

This report sets out details of the amounts earned during 2021 and provides details as to how the Committee intends to implement the policy during 2022. This part of the report will be subject to an advisory shareholder vote at the 2021 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, 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 three times during the year; its meetings are minuted and its recommendations are presented to the Board.

Policy on other appointments

The Board believes that Directors should be able to accept other appointments where no significant actual or potential conflicts of interest arise and provided that the Director is able to maintain his time commitment to the Company. These other appointments enable Directors to accrue further skills and experience from which the Company benefits. This policy is reviewed annually. None of the Executive Directors had any other external appointments during the year ended 31 July 2021.

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 £7,125 (2020: £13,500). 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.

Directors' remuneration report continued

Annual report on remuneration continued

Single total figure of remuneration for 2021 – Executive Directors (audited information)

The remuneration of the Directors who served on the Board of Nanoco Group plc during the year to 31 July 2021 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 2021 £'000	Total fixed remuneration	Total variable remuneration
Executive Directors									
Dr Nigel Pickett	169	–	–	84	–	10	263	179	84
Brian Tenner	192	–	–	95	–	11	298	203	95
Total Executive Directors	361	–	–	179	–	21	561	382	179
Former Executive Directors									
Dr Michael Edelman ⁴	180	–	–	–	–	–	180	180	–
Non-Executive Directors									
Dr Christopher Richards	65	–	–	–	–	–	65	65	–
Dr Alison Fielding	30	–	–	–	–	–	30	30	–
Chris Batterham	30	–	–	–	–	–	30	30	–
Total Non-Executive Directors	125	–	–	–	–	–	125	125	–
Total	666	–	–	179	–	21	866	687	179

The remuneration of the Directors who served on the Board of Nanoco Group plc during the year to 31 July 2020 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 2020 £'000	Total fixed remuneration	Total variable remuneration
Executive Directors									
Dr Nigel Pickett	186	–	–	–	–	10	196	196	–
Brian Tenner	208	–	–	–	–	11	219	219	–
Total Executive Directors	394	–	–	–	–	21	415	415	–
Former Executive Directors									
Dr Michael Edelman ⁴	307	–	–	–	–	16	323	323	–
Non-Executive Directors									
Dr Christopher Richards	88	–	–	–	–	–	88	88	–
Dr Alison Fielding	41	–	–	–	–	–	41	41	–
Chris Batterham	41	–	–	–	–	–	41	41	–
Total Non-Executive Directors	170	–	–	–	–	–	170	170	–
Total	871	–	–	–	–	37	908	908	–

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 and the 35% salary deferral that took effect from 1 April 2021.

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 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 and in the range of 1.215 to 1.336 in FY20. Information on payments for loss of office are set out in the prior year financial statements.

Annual report on remuneration continued

Individual elements of remuneration for the year ended 31 July 2021

Base salary

Base salaries (before 20% pay reductions) were frozen in line with other staff in the year ended 31 July 2021.

Annual bonus

For the year ended 31 July 2021, the maximum bonus for Dr Nigel Pickett and Brian Tenner was 100% of salary. The annual bonuses comprise two elements: financial corporate objectives (80% of salary) and personal objectives (20% 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 2021:

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 (60%)	£2.2m	£5.0m	£2.3m	16.2%
Adjusted LBITDA (20%)	Loss of £3.8m	Loss of £1.4m	Loss of £2.9m	6.9%

The personal objectives and amounts payable in respect of them 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	23.1%
	Personal objectives	20	20%
	Effective CEO transition		Achieved
	Develop revised strategy reflecting Group's resources		Achieved
	Support all Samsung litigation activities		Achieved
	Deliver milestones under new JDA contract		Achieved
Dr Nigel Pickett	Financial and corporate measures	80	23.1%
	Personal objectives	20	20%
	Ensure product parameters are met as part of JDA		Achieved
	Effectively review IP portfolio		Achieved
	Drive all Samsung litigation activities		Achieved
	Execute new JDA contract		Achieved

Directors' remuneration report continued

Annual report on remuneration continued

Long-term incentives vesting in respect of the year ended 31 July 2021

No long-term incentives vested during the year ended 31 July 2021. The LTIP awards granted in November 2018 were subject to performance conditions assessed over the three financial years ended 31 July 2020. The threshold targets were not achieved and consequently all of the awards have lapsed:

	Threshold target	Maximum target	Outcome
Share price	£0.60	£1.00	No awards vest

LTIP awards granted in 2020

Awards to the Executive Directors made on 21 October 2020 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	200%	2,485,956	384	384	3
Nigel Pickett	Share award	150%	1,647,668	254	254	3

¹ The salary for the purposes of these awards takes into account the impact of the 20% reduction in base salary that applied for 8 months of the year. The face value of the awards is calculated based on a share price of £0.1544, being the three month average share price to 15 October 2020 used to determine the number of shares under award as referred to in the announcement of 21 October 2020.

LTIP granted 21 October 2020	Threshold target	Maximum target
Share price	£0.30	£0.50
Vesting ratio	25%	100%

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

Directors' interests in share options to acquire ordinary shares of 10 pence in the Company as at 31 July 2021 were, including Deferred Bonus Plan:

Share options	Date granted	Exercise price	At 1 August 2020	Exercised during the year	Lapsed	Granted during the year	At 31 July 2021
Dr Nigel Pickett	25 Nov 2011	50.00p	500,000 ¹	–	–	–	500,000
	22 Oct 2012	57.00p	750,000 ¹	–	–	–	750,000
	22 Nov 2016 ⁴	Nil	66,576	–	–	–	66,576
	7 Nov 2018	Nil	549,398	–	(549,398) ²	–	–
	1 Nov 2019 ⁴	Nil	437,681	–	–	–	437,681
	10 Dec 2019 ⁴	Nil	437,681	–	–	–	437,681
	21 Oct 2020	Nil	–	–	–	1,647,668 ³	1,647,668
Brian Tenner	7 Nov 2018	Nil	1,021,086	–	(1,021,086) ²	–	–
	1 Nov 2019 ⁴	Nil	521,634	–	–	–	521,634
	10 Dec 2019 ⁴	Nil	521,634	–	–	–	521,634
	21 Oct 2020	Nil	–	–	–	2,485,956 ³	2,485,956

¹ Vested but unexercised share options.

² Lapsed at the year end as vesting conditions not met.

³ Unvested share options still subject to performance conditions.

⁴ Deferred Bonus Plan awards.

Annual report on remuneration continued

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 2018 AGM, the required holding was standardised at 200% of salary for all Executive Directors. Executive Directors are expected to retain 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.1,350% of salary using the three-month average closing share price to the end of July 2021). Mr Brian Tenner, having joined the Company in August 2018, is building up a holding which currently stands at 62% of salary (117% including the minimum 50% Deferred Bonus Plan awards that must be retained until the minimum shareholding is achieved). Non-Executive Directors are not subject to the shareholding requirement.

Directors' interests in the shares of the Company, including family and beneficial interests, at 31 July 2021 (or, if earlier, the date on which they stepped down from the Board) were:

	Ordinary shares of 10p each			
	31 July 2021 Number	31 July 2021 %	31 July 2020 Number	31 July 2020 %
Current Directors				
Dr Christopher Richards	728,730	0.24	628,730	0.21
Dr Nigel Pickett	11,245,548	3.68	11,245,548	3.68
Brian Tenner	592,375	0.19	592,375	0.19
Dr Alison Fielding	239,157	0.08	239,157	0.08
Chris Botterham	153,571	0.05	153,571	0.05
Total for current Directors	12,959,381	4.24	12,859,381	4.21

None of the Directors in office as at 31 July 2021 had any interests at that date in shares of any other Group company.

There were no changes in Directors' shareholdings between 31 July 2021 and the publishing date of these accounts.

The market price for Nanoco shares as at 31 July 2021 was 18.5 pence per share; the highest and lowest prices during the year were 29.85 pence and 8.765 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 7.1%.

Directors' remuneration report continued

Annual report on remuneration continued

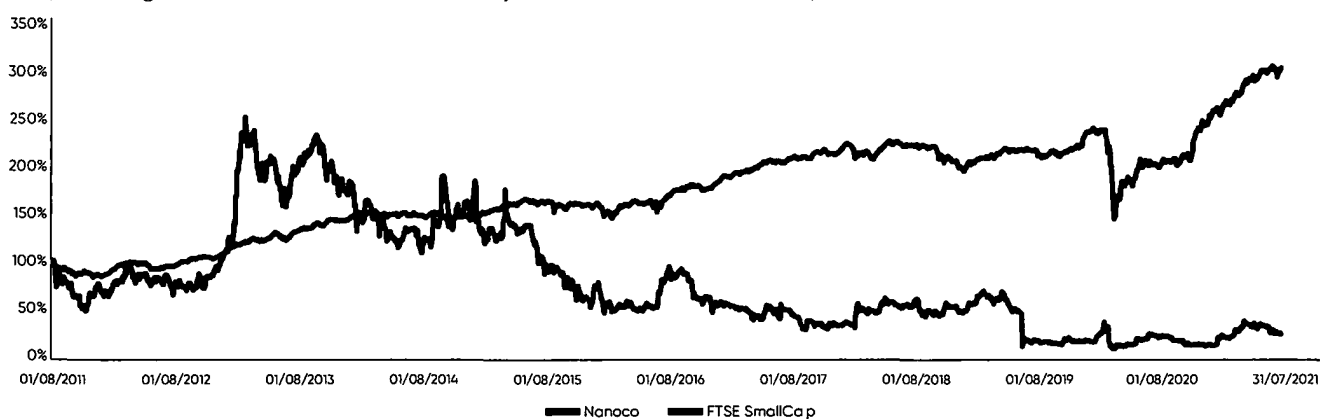
Unaudited information

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 2011 to 31 July 2021. 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 a constituent member.

Total shareholder return

The graph shows the percentage return of an investment in the Company's shares on 1 August 2011 compared with the percentage return of an investment notionally invested in the FTSE SmallCap index.



Ten-year view of CEO remuneration

CEO remuneration	2012	2013	2014	2015	2016	2017	2018	2019	2020	2021
Total remuneration (£'000) ¹	182	707	293	635	406	327	312	505	323	298²
Annual bonus (% of max vesting)	25	73	56	56	40	–	–	52	–	43
LTIP (% of max vesting)	–	–	–	100	–	–	–	–	–	–

¹ Dr Michael Edelman's remuneration was paid in US Dollars but reported in Sterling in this table for the years 2012 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 remuneration to reflect the change in position. 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 Michael Edelman for the part of the year when he was CEO is not included.

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.

	Average employee	Brian Tenner	Dr Nigel Pickett	Dr Christopher Richards	Dr Alison Fielding	Christopher Batterham
Salary/fees ¹	4%	(7%)	(9%)	(26%)	(26%)	(26%)
Taxable benefits	N/A	N/A	N/A	N/A	N/A	N/A
Annual bonus	4%	N/A	N/A	N/A	N/A	N/A

¹ As noted on page 59, the Executive Directors' salaries were reduced by 20% and the Non-Executive Directors' fees by 35% with effect from 1 April 2020.

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 Company).

	Year ended 31 July 2021 £'000	Year ended 31 July 2020 £'000	% change
Dividends	–	–	–
Overall expenditure on pay	2,700	4,164	(35%)
Average headcount	51	72	(28%)

Implementation of policy for the year commencing 1 August 2021

Base salary

Base salaries are reviewed annually with effect from 1 August. For the year commencing 1 August 2021 Executive Directors will have their base salary frozen at the same level as last year which is the same position as the wider workforce as shown in the table below. However, to reflect Brian Tenner's position as CEO, his pay has been increased with effect from 1 August 2021.

	2021	2020	% change
Chief Executive Officer – Brian Tenner	£250,000	£221,450	13%
Chief Technical Officer – Dr Nigel Pickett	£195,700	£195,700	Nil

Changes to Non-Executive Directors' fees

The Non-Executive Directors' fees have also been frozen at the same level as last year. A temporary 35% pay reduction was applied to the Non-Executive Directors' fees on 1 April 2020 and on 1 April 2021 it became an equivalent deferral until there is a significant improvement in the financial condition of the Company. At 31 July 2021, an accrual of £25,000 exists in relation to this deferral.

	2021 (contracted)	Temporary 65% of fee	2020 (contracted)
Chairman fee	£100,000	£65,000	£100,000
NED base fee	£41,000	£26,650	£41,000
Chair of Committee fee	£5,000	£3,250	£5,000

Pension

The Company operates a salary sacrifice pension arrangement. For the year commencing 1 August 2021, employer pension contributions above the amount of any salary sacrifice (and the associated employer National Insurance contribution savings) have increased to 6% of salary for the whole workforce, including the Executive Directors.

Annual Bonus

For the year ending 31 July 2022, 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.

Directors' remuneration report continued

Annual report on remuneration continued

Unaudited information continued

Implementation of policy for the year commencing 1 August 2021 continued

Annual Bonus continued

Consistent with the 2021 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 FY22 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 and malus provisions to any unvested deferred bonus award.

LTIP

The Committee intends to make awards of approximately 150% of salary to the CEO and the CTO after the announcement of the Group's full year results for the year ended 31 July 2021 (subject to market conditions at the time of award). The Committee will agree targets if and when any LTIP awards are made during FY22. 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 to approve the Directors' remuneration report at the Company's Annual General Meeting held on 3 December 2020.

Resolution	Votes for	% for	Votes against	% against	Votes withheld
To approve the Directors' remuneration report	126,104,908	97.1%	3,809,333	2.9%	194,521

The following table sets out the actual voting in respect of the resolution to approve the Directors' remuneration policy, which remained in place for three subsequent years, at the Company's Annual General Meeting held on 13 December 2018.

Resolution	Votes for	% for	Votes against	% against	Votes withheld
To approve the Directors' remuneration report	151,068,120	96.5%	5,546,980	3.5%	14,674

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

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 2021
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

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
3 November 2021

Directors' report

The Directors present their report and the audited financial statements for the Group and Parent Company for the year ended 31 July 2021.

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 8 and 9 to 13 respectively.

Total research and development spend was £2.2 million (2020: £3.1 million). No development expenditure was capitalised in the year (2020: £nil) for the reasons provided in note 3(h) to the accounts.

Dividends

The Directors do not recommend payment of an ordinary dividend (2020: £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 37. 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	86 to 116
Board and Committee meetings and Directors' attendance	23
Directors' biographical details and date of appointment	38 and 39
Corporate governance	40 to 49
Approach to risk management and principal risks	27 to 29
Research and development activities	2 and 22
Directors' remuneration	62 to 76
Greenhouse gas emissions, employee engagement, disability, gender and human rights	32 to 37
Statement on disclosure to the external auditors	80
Statement of Directors' responsibilities	80
Future developments	5 and 18
Going concern statement	31
Disclosures on financial instruments (note 27 to the consolidated financial statements)	111 to 114

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

Directors' report continued

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 2021 the authority given by the shareholders at the 2020 Annual General Meeting is for the Company to make market purchases of up to £3,056,991 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 2021 Annual General Meeting.

Share capital and funding

As at 31 July 2021 share capital comprised 305.7 million ordinary shares of 10 pence each (2020: £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 23 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 2021, 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 2021:

Substantial shareholders	Number of ordinary shares at 31 July 2021	% of issued share capital
Lombard Odier Asset Management	82,661,386	27.04
Hargreaves Lansdown Asset Management	40,623,811	13.29
Mr Richard I Griffiths	34,993,445	11.45
Interactive Investor	25,098,736	8.21
Dr Nigel Pickett	11,245,548	3.68
Barclays Smart Investor	9,582,975	3.13

There were no notified significant changes in the holdings between 31 July 2021 and the date the Annual Report and Accounts was signed.

Donations

No political donations were made in the year (2020: £nil). Charitable donations of £nil were made in the year (2020: £nil).

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.

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 45.

Foreign branches

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

Independent auditors

PwC LLP held office during the year following an external tender process in 2018. PwC LLP have indicated their willingness to continue in office.

Ordinary resolutions to re-appoint PwC 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 30 November 2021 at 11.00am, at the Company's headquarters at 46 Grafton Street, Manchester M13 9NT. Due to ongoing Covid-19 restrictions, we would encourage shareholders to dial in through the teleconference details which are 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.

On behalf of the Board

Brian Tenner
Chief Executive Officer
3 November 2021

Statement of directors' responsibilities in respect of the financial statements

The directors are responsible for preparing the Annual Report and Accounts 2021 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 2021 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
3 November 2021

Independent auditors' report to the members of Nanoco Group plc

Report on the audit of the financial statements

Opinion

In our opinion, Nanoco Group plc's group financial statements and company financial statements (the "financial statements"):

- give a true and fair view of the state of the group's and of the company's affairs as at 31 July 2021 and of the group's loss and the group's and company's cash flows for the year then ended;
- have been properly prepared in accordance with international accounting standards in conformity with the requirements of the Companies Act 2006; and
- have been prepared in accordance with the requirements of the Companies Act 2006.

We have audited the financial statements, included within the Annual Report and Accounts 2021 (the "Annual Report"), which comprise: the Group and Company statements of financial position as at 31 July 2021; the Consolidated statement of comprehensive income, the Consolidated and Company statements of changes in equity and the Group and Company cash flow statements for the year then ended; and the notes to the financial statements, which include a description of the significant accounting policies.

Our opinion is consistent with our reporting to the audit committee.

Separate opinion in relation to international financial reporting standards adopted pursuant to Regulation (EC) No 1606/2002 as it applies in the European Union

As explained in note 2a to the financial statements, the group and company, in addition to applying international accounting standards in conformity with the requirements of the Companies Act 2006, have also applied international financial reporting standards adopted pursuant to Regulation (EC) No 1606/2002 as it applies in the European Union.

In our opinion, the group and company financial statements have been properly prepared in accordance with international financial reporting standards adopted pursuant to Regulation (EC) No 1606/2002 as it applies in the European Union.

Basis for opinion

We conducted our audit in accordance with International Standards on Auditing (UK) ("ISAs (UK)") and applicable law. Our responsibilities under ISAs (UK) are further described in the Auditors' responsibilities section of our report. We believe that the audit evidence we have obtained is sufficient and appropriate to provide a basis for our opinion.

Independence

We remained independent of the group in accordance with the ethical requirements that are relevant to our audit of the financial statements in the UK, which includes the FRC's Ethical Standard, as applicable to listed public interest entities, and we have fulfilled our other ethical responsibilities in accordance with these requirements.

To the best of our knowledge and belief, we declare that non-audit services prohibited by the FRC's Ethical Standard were not provided.

We have provided no non-audit services to the company or its controlled undertakings in the period under audit.

Material uncertainty related to going concern

In forming our opinion on the financial statements, which is not modified, we have considered the adequacy of the disclosure made in note 2(c) to the financial statements concerning the group's and the company's ability to continue as a going concern. The directors have concluded that there is uncertainty surrounding the timing of revenue related to these projects which may lead to the need to implement restructuring plans that could reduce the activities of the group to an IP shell. These conditions, along with the other matters explained in note 2(c) to the financial statements, indicate the existence of a material uncertainty which may cast significant doubt about the group's and the company's ability to continue as a going concern. The financial statements do not include the adjustments that would result if the group and the company were unable to continue as a going concern.

In auditing the financial statements, we have concluded that the directors' use of the going concern basis of accounting in the preparation of the financial statements is appropriate.

Our evaluation of the directors' assessment of the group's and the company's ability to continue to adopt the going concern basis of accounting included:

- we obtained management's assessment that supports the Board's conclusions with respect to the disclosures provided around going concern;
- we discussed with management the assumptions applied in the going concern review so we could understand the rationale for those assumptions;
- we challenged the rationale for those assumptions, using our knowledge of the business and the sector;
- we verified the current cash balances of the group;
- we verified the contracted revenue included in the models;
- we assessed the mathematical accuracy of the models produced;
- we performed a sensitivity analysis to assess the impact of a reduction in cash inflows; and
- we evaluated management's downside case scenario and challenged their adequacy and underlying assumptions.

In relation to the directors' reporting on how they have applied the UK Corporate Governance Code, other than the material uncertainty identified in note 2(c) to the financial statements, we have nothing material to add or draw attention to in relation to the directors' statement in the financial statements about whether the directors considered it appropriate to adopt the going concern basis of accounting, or in respect of the directors' identification in the financial statements of any other material uncertainties to the group's and the company's ability to continue to do so over a period of at least twelve months from the date of approval of the financial statements.

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

Independent auditors' report to the members of Nanoco Group plc continued

Report on the audit of the financial statements continued

Our audit approach

Overview

Audit scope

- Full scope audit of Nanoco Technologies Limited plus procedures over certain balances within three other Group companies

Key audit matters

- Material uncertainty related to going concern
- Recoverability of intangible assets (group and parent)
- Recoverability of investments (parent)

Materiality

- Overall group materiality: £73,540 (2020: £91,160) based on 1% of total expenses pre exceptional costs.
- Overall company materiality: £65,000 (2020: £81,127) based on 1% of total assets capped at 88% of group materiality.
- Performance materiality: £55,155 (group) and £48,750 (company).

The scope of our audit

As part of designing our audit, we determined materiality and assessed the risks of material misstatement in the financial statements.

Key audit matters

Key audit matters are those matters that, in the auditors' professional judgement, were of most significance in the 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) identified by the auditors, 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, and any comments we make on the results of our procedures thereon, 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.

In addition to going concern, described in the Material uncertainty related to going concern section above, we determined the matters described below to be the key audit matters to be communicated in our report. This is not a complete list of all risks identified by our audit.

Material uncertainty related to going concern is a new key audit matter this year. Going concern and the Impact of Covid-19, which was a key audit matter last year, is no longer included because of the impact of Covid-19 on the business having been limited and given there is a material uncertainty included this year, the separate key audit matter for going concern is not required. Otherwise, the key audit matters below are consistent with last year.

Key audit matter	How our audit addressed the key audit matter
<p>Recoverability of intangible assets (group and parent)</p> <p>Refer to notes 2(e), 3(l) and 14 of the Financial Statements.</p> <p>The intangible assets balance of £2,858k as at 31 July 2021 have been assessed for impairment during the year.</p> <p>We focussed on this area because the impairment assessment involved judgements and estimates that have a material impact on the amounts recognised in the financial statements, including an assessment of the group's patent portfolio, to assess whether there is any indication that the carrying value of any patent is higher than its recoverable amount.</p>	<p>To assess the recoverability of intangible assets, performed by management, we performed the following:</p> <p>We assessed the reasonableness of management's assumption regarding recoverable values.</p> <p>Regarding patents, we assessed whether management's assessment for indicators of impairment was appropriate.</p> <p>We reviewed management's assessment of the potential sales value of their intangible assets when compared to transactions involving similar technology portfolios.</p>
<p>Recoverability of investments (parent)</p> <p>Refer to notes 2(e), 3(m) and 15 of the Financial Statements.</p> <p>As at 31 July 2021, the Company had an investment in subsidiaries of £40,128k, which is required to be considered for indicators of impairment on an annual basis.</p> <p>An indicator of impairment was not considered to exist at the balance sheet date and therefore no impairment charge has been noted.</p> <p>There is judgement involved in the determination of the recoverable amount of the investment.</p>	<p>To assess the impairment assessment performed by the Directors', we have performed the following:</p> <p>We considered management's conclusion that it was more appropriate to consider the fair value than value in use model.</p> <p>We reviewed the key inputs into management's fair value calculation, including number of shares in issue and share price.</p> <p>We reviewed the disclosure in the Financial Statements to ensure it was complete and accurate.</p>

Report on the audit of the financial statements continued

Our audit approach continued

How we tailored the audit scope

We tailored the scope of our audit to ensure that we performed enough work to be able to give an opinion on the financial statements as a whole, taking into account the structure of the group and the company, the accounting processes and controls, and the industry in which they operate.

We tailored the scope of our audit to ensure that we performed enough work to be able to give an opinion on the financial statements as a whole, taking into account the structure of the group and the company, the accounting processes and controls, and the industry in which they operate.

Materiality

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 in aggregate on the financial statements as a whole.

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

	Financial statements - group	Financial statements - company
Overall materiality	£73,540 (2020: £91,160).	£65,000 (2020: £81,127).
How we determined it	1% of total expenses pre exceptional costs	1% of total assets capped at 88% of group materiality
Rationale for benchmark applied	Total expenses pre exceptional costs represents a measure of the rate at which the group is using its cash resources, is considered to be more appropriate than a revenue or a profit based measure, and is a generally accepted auditing benchmark.	Total assets is considered to be appropriate as it is not a profit oriented Company. The Company holds investments in subsidiaries and therefore total assets is deemed a generally accepted auditing benchmark. Overall materiality has been capped to 92% of Group materiality.

For each component in the scope of our group audit, we allocated a materiality that is less than our overall group materiality. The range of materiality allocated across components was £67,325 and £12,063. Certain components were audited to a local statutory audit materiality that was also less than our overall group materiality.

We use performance materiality to reduce to an appropriately low level the probability that the aggregate of uncorrected and undetected misstatements exceeds overall materiality. Specifically, we use performance materiality in determining the scope of our audit and the nature and extent of our testing of account balances, classes of transactions and disclosures, for example in determining sample sizes. Our performance materiality was 75% of overall materiality, amounting to £55,155 for the group financial statements and £48,750 for the company financial statements.

In determining the performance materiality, we considered a number of factors - the history of misstatements, risk assessment and aggregation risk and the effectiveness of controls - and concluded that an amount at the upper end of our normal range was appropriate.

We agreed with the audit committee that we would report to them misstatements identified during our audit above £3,677 (group audit) (2020: £4,558) and £3,250 (company audit) (2020: £4,056) as well as misstatements below those amounts that, in our view, warranted reporting for qualitative reasons.

Independent auditors' report to the members of Nanoco Group plc continued

Report on the audit of the financial statements continued

Reporting on other information

The other information comprises all of the information in the Annual Report other than the financial statements and our auditors' report thereon. The directors are responsible for the other information. Our opinion on the financial statements does not cover the other information and, accordingly, we do not express an audit opinion or, except to the extent otherwise explicitly stated in this report, any form of assurance thereon.

In connection with our audit of the financial statements, 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 audit, or otherwise appears to be materially misstated. If we identify an apparent material inconsistency or material misstatement, we are required to perform procedures to conclude whether there is a material misstatement of the financial statements or a material misstatement of the other information. 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 based on these responsibilities.

With respect to the Strategic report and Directors' report, we also considered whether the disclosures required by the UK Companies Act 2006 have been included.

Based on our work undertaken in the course of the audit, the Companies Act 2006 requires us also to report certain opinions and matters as described below.

Strategic report and Directors' report

In our opinion, based on the work undertaken in the course of the audit, the information given in the Strategic report and Directors' report for the year ended 31 July 2021 is consistent with the financial statements and has been prepared in accordance with applicable legal requirements.

In light of the knowledge and understanding of the group and company and their environment obtained in the course of the audit, we did not identify any material misstatements in the Strategic report and Directors' report.

Corporate governance statement

The Listing Rules require us to review the directors' statements in relation to going concern, longer-term viability and that part of the corporate governance statement relating to the company's compliance with the provisions of the UK Corporate Governance Code specified for our review. Our additional responsibilities with respect to the corporate governance statement as other information are described in the Reporting on other information section of this report.

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 and our knowledge obtained during the audit, and, except for the matters reported in the section headed 'Material uncertainty related to going concern', we have nothing material to add or draw attention to in relation to:

- The directors' confirmation that they have carried out a robust assessment of the emerging and principal risks;
- The disclosures in the Annual Report that describe those principal risks, what procedures are in place to identify emerging risks and an explanation of how these are being managed or mitigated;
- The directors' statement in the financial statements about whether they considered it appropriate to adopt the going concern basis of accounting in preparing them, and their identification of any material uncertainties to the group's and company's ability to continue to do so over a period of at least twelve months from the date of approval of the financial statements;
- The directors' explanation as to their assessment of the group's and company's prospects, the period this assessment covers and why the period is appropriate; and
- The directors' statement as to whether they have a reasonable expectation that the company will be able to continue in operation and meet its liabilities as they fall due over the period of its assessment, including any related disclosures drawing attention to any necessary qualifications or assumptions.

Our review of the directors' statement regarding the longer-term viability of the group was substantially less in scope than an audit and only consisted of making inquiries and considering the directors' process supporting their statement; checking that the statement is in alignment with the relevant provisions of the UK Corporate Governance Code; and considering whether the statement is consistent with the financial statements and our knowledge and understanding of the group and company and their environment obtained in the course of the audit.

In addition, 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 and our knowledge obtained during the audit:

- The directors' statement that they consider the Annual Report, taken as a whole, is fair, balanced and understandable, and provides the information necessary for the members to assess the group's and company's position, performance, business model and strategy;
- The section of the Annual Report that describes the review of effectiveness of risk management and internal control systems; and
- The section of the Annual Report describing the work of the audit committee.

We have nothing to report in respect of our responsibility to report when the directors' statement relating to the company's compliance with the Code does not properly disclose a departure from a relevant provision of the Code specified under the Listing Rules for review by the auditors.

Responsibilities for the financial statements and the audit

Responsibilities of the directors for the financial statements

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

Report on the audit of the financial statements continued

Responsibilities for the financial statements and the audit continued

Responsibilities of the directors for the financial statements continued

In preparing the financial statements, the directors are responsible for assessing the group's and the 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 company or to cease operations, or have no realistic alternative but to do so.

Auditors' 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 auditors' 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.

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

Based on our understanding of the group and industry, we identified that the principal risks of non-compliance with laws and regulations related to the Listing Rules and UK tax legislation, and we considered the extent to which non-compliance might have a material effect on the financial statements. We also considered those laws and regulations that have a direct impact on the financial statements such as the Companies Act 2006. We evaluated management's incentives and opportunities for fraudulent

manipulation of the financial statements (including the risk of override of controls), and determined that the principal risks were related to posting inappropriate journal entries to increase revenue or reduce expenditure, and management bias in accounting estimates. Audit procedures performed by the engagement team included:

- Discussions with management including consideration of known or suspected instances of non-compliance with laws and regulation and fraud
- Challenging assumptions and judgements made by management in their significant accounting estimates, in particular in relation to recoverability of intangible assets (see related key audit matter)
- Identifying and testing journal entries, in particular any journal entries posted with unusual account combinations

There are inherent limitations in the audit procedures described above. We are less likely to become aware of instances of non-compliance with laws and regulations that are not closely related to events and transactions reflected in the financial statements. Also, the risk of not detecting a material misstatement due to fraud is higher than the risk of not detecting one resulting from error, as fraud may involve deliberate concealment by, for example, forgery or intentional misrepresentations, or through collusion.

Our audit testing might include testing complete populations of certain transactions and balances, possibly using data auditing techniques. However, it typically involves selecting a limited number of items for testing, rather than testing complete populations. We will often seek to target particular items for testing based on their size or risk characteristics. In other cases, we will use audit sampling to enable us to draw a conclusion about the population from which the sample is selected.

A further description of our responsibilities for the audit of the financial statements is located on the FRC's website at: www.frc.org.uk/auditorsresponsibilities. This description forms part of our auditors' report.

Use of this report

This report, including the opinions, has been prepared for and only for the company's members as a body in accordance with Chapter 3 of Part 16 of the Companies Act 2006 and for no

other purpose. We do not, in giving these opinions, accept or assume responsibility for any other purpose or to any other person to whom this report is shown or into whose hands it may come save where expressly agreed by our prior consent in writing.

Other required reporting

Companies Act 2006 exception reporting

Under the Companies Act 2006 we are required to report to you if, in our opinion:

- we have not obtained all the information and explanations we require for our audit; or
- adequate accounting records have not been kept by the company, or returns adequate for our audit have not been received from branches not visited by us; or
- certain disclosures of directors' remuneration specified by law are not made; or
- the company financial statements are not in agreement with the accounting records and returns.

We have no exceptions to report arising from this responsibility.

Appointment

Following the recommendation of the audit committee, we were appointed by the members on 24 January 2019 to audit the financial statements for the year ended 31 July 2019 and subsequent financial periods. The period of total uninterrupted engagement is 3 years, covering the years ended 31 July 2019 to 31 July 2021.

Jonathan Studholme
(Senior Statutory Auditor)
for and on behalf of
PricewaterhouseCoopers LLP
Chartered Accountants and
Statutory Auditors
Manchester
3 November 2021

Financial statements

Consolidated statement of comprehensive income

for the year ended 31 July 2021

	Notes	2021 £'000	2020 (Restated) ¹ £'000
Revenue	4	2,091	3,856
Cost of sales		(209)	(345)
Gross profit		1,882	3,511
Other operating income	5	183	101
Operating expenses			
Research and development expenses		(2,150)	(3,143)
Administrative expenses		(4,924)	(6,362)
Operating loss	6	(5,009)	(5,893)
- before exceptional costs and share-based payments		(4,592)	(4,811)
- share-based payments	24	(417)	(360)
- exceptional costs	7	-	(722)
Finance income	9	-	8
Finance expense	9	(71)	(87)
Loss before taxation		(5,080)	(5,972)
Taxation	10	685	893
Loss after taxation		(4,395)	(5,079)
Other comprehensive income/(loss)			
Gain on exchange rate translations		-	3
Total comprehensive loss for the year		(4,395)	(5,076)
Loss per share			
Basic and diluted loss for the year	11	(1.44)p	(1.77)p

¹ More information is detailed in Note 30 to the financial statements.

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 90 to 116 form an integral part of these financial statements.

Consolidated statement of changes in equity

for the year ended 31 July 2021

Group	Note	Issued equity capital £'000	Reverse acquisition reserve £'000	Share-based payment reserve £'000	Merger reserve £'000	Accumulated losses £'000	Total £'000
At 1 August 2019		144,453	(77,868)	3,419	(1,242)	(60,239)	8,523
Amendment to dilapidations calculation	30	–	–	–	–	(186)	(186)
Amendment to calculation of share based payment	30	–	–	122	–	(122)	–
Restated at 1 August 2019		144,453	(77,868)	3,541	(1,242)	(60,547)	8,337
Loss for the year (Restated) ¹		–	–	–	–	(5,079)	(5,079)
Other comprehensive income		–	–	–	–	3	3
Total comprehensive loss		–	–	–	–	(5,076)	(5,076)
Issue of share capital on placing		3,409	–	–	–	–	3,409
Share-based payments		–	–	360	–	–	360
At 31 July 2020		147,862	(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		147,862	(77,868)	4,318	(1,242)	(70,018)	3,052

¹ More information is detailed in Note 30 to the financial statements.

Company statement of changes in equity

for the year ended 31 July 2021

Company	Note	Issued equity capital £'000	Share-based payment reserve £'000	Capital redemption reserve £'000	Accumulated losses £'000	Total £'000
At 1 August 2019		144,453	3,419	4,402	(113,398)	38,876
Amendment to calculation of share based payment	30	–	122	–	–	122
Restated At 1 August 2019		144,453	3,541	4,402	(113,398)	38,998
Loss for the year and total comprehensive loss for the year		–	–	–	(64)	(64)
Issue of share capital on placing		3,409	–	–	–	3,409
Share-based payments		–	360	–	–	360
At 31 July 2020		147,862	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		147,862	4,318	4,402	(119,978)	36,604

Financial statements

Group and Company statements of financial position

at 31 July 2021

Registered no. 05067291

	Notes	31 July 2021 Group £'000	31 July 2021 Company £'000	31 July 2020 Group (Restated) ¹ £'000	31 July 2020 Company (Restated) ¹ £'000	1 August 2019 Group (Restated) ¹ £'000	1 August 2019 Company (Restated) ¹ £'000
Assets							
Non-current assets							
Tangible fixed assets	12	199	–	263	–	747	–
Right of use assets	13	340	–	612	–	981	–
Intangible assets	14	2,858	–	3,742	–	3,897	–
Investment in subsidiaries	15	–	40,128	–	39,713	–	39,351
		3,397	40,128	4,617	39,713	5,625	39,351
Current assets							
Inventories	16	110	–	140	–	226	–
Trade and other receivables	17	1,227	–	1,018	–	1,117	–
Income tax asset	10	686	–	910	–	1,129	–
Cash and cash equivalents	18	3,813	1	5,170	3,440	7,005	97
		5,836	1	7,238	3,440	9,477	97
Total assets		9,233	40,129	11,855	43,153	15,102	39,448
Liabilities							
Current liabilities							
Trade and other payables	19	(1,617)	(80)	(2,327)	–	(2,614)	–
Lease liabilities	22	(545)	–	(642)	–	(749)	–
Provisions		–	–	–	–	(134)	–
Deferred revenue	21	(253)	–	(603)	–	(1,462)	–
		(2,415)	(80)	(3,572)	–	(4,959)	–
Non-current liabilities							
Financial liabilities	20	(3,487)	(3,445)	(462)	(450)	(433)	(450)
Lease liabilities	22	(133)	–	(542)	–	(1,020)	–
Deferred revenue	21	(146)	–	(249)	–	(353)	–
		(3,766)	(3,445)	(1,253)	(450)	(1,806)	(450)
Total liabilities		(6,181)	(3,525)	(4,825)	(450)	(6,765)	(450)
Net assets		3,052	36,604	7,030	42,703	8,337	38,998
Capital and reserves							
Share capital	23	30,570	30,570	30,570	30,570	28,622	28,622
Share premium	23	117,292	117,292	117,292	117,292	115,831	115,831
Reverse acquisition reserve	23	(77,868)	–	(77,868)	–	(77,868)	–
Share-based payment reserve	24	4,318	4,318	3,901	3,901	3,541	3,541
Merger reserve	25	(1,242)	–	(1,242)	–	(1,242)	–
Capital redemption reserve	25	–	4,402	–	4,402	–	4,402
Accumulated losses	26	(70,018)	(119,978)	(65,623)	(113,462)	(60,547)	(113,398)
Total equity		3,052	36,604	7,030	42,703	8,337	38,998

1 More information is detailed in Note 30 to the financial statements.

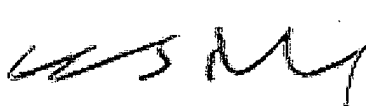
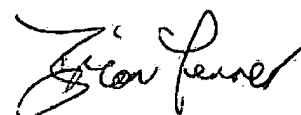
The Parent Company's result for the year ended 31 July 2021 was a loss of £6,516,000 (2020: loss of £64,000). There was no other comprehensive income in either the current or prior year.

The notes on pages 90 to 116 form an integral part of these financial statements.

The financial statements on pages 86 to 89 were approved by the Board of Directors on 3 November 2021 and signed on its behalf by:

Dr Christopher Richards
Chairman
3 November 2021

Brian Tenner
Director
3 November 2021

Group and Company cash flow statements

for the year ended 31 July 2021

	Notes	31 July 2021 Group £'000	31 July 2021 Company £'000	31 July 2020 Group (Restated) ¹ £'000	31 July 2020 Company £'000
Loss before tax		(5,080)	(6,516)	(5,972)	(64)
Adjustments for:					
Net finance expense	9	71	6	(79)	–
(Profit)/loss on exchange rate translations		17	2	(87)	–
Depreciation of tangible fixed assets	12	99	–	590	–
Depreciation of right of use assets	13	408	–	505	–
Amortisation of intangible assets	14	618	–	633	–
Impairment of intangible assets	14	623	–	120	–
Share-based payments	24	417	–	360	–
Exceptional costs	7	–	–	722	64
Gain on disposal of tangible fixed assets	6	(48)	–	–	–
Interest paid		(4)	–	–	–
Changes in working capital:					
Decrease in inventories		30	–	221	–
(Increase)/decrease in trade and other receivables		(209)	–	99	–
(Decrease)/increase in trade and other payables		(757)	80	(2)	–
Decrease in provisions		–	–	(797)	–
Decrease in deferred revenue		(453)	–	(963)	–
Cash outflow from operating activities		(4,268)	(6,428)	(4,650)	–
Research and development tax credit received		908	–	1,111	–
Net cash outflow from operating activities		(3,360)	(6,428)	(3,539)	–
Cash flow from investing activities					
Purchases of tangible fixed assets	12	(35)	–	(106)	–
Purchases of intangible fixed assets	14	(357)	–	(598)	–
Proceeds from sale of tangible fixed assets	6	48	–	–	–
Interest received		–	–	8	–
Net cash outflow from investing activities		(344)	–	(696)	–
Cash flow from financing activities					
Proceeds from placing of ordinary share capital		–	–	3,409	3,409
Proceeds from issue of loan notes		3,150	3,150	–	–
Costs of financing/placing		(161)	(161)	(237)	(64)
Payment of lease liabilities (capital)		(642)	–	(772)	–
Payment of lease liabilities (interest)		(30)	–	–	–
Net cash inflow from financing activities		2,317	2,989	2,400	3,345
(Decrease)/increase in cash and cash equivalents		(1,387)	(3,439)	(1,835)	3,343
Cash and cash equivalents at the start of the year		5,170	3,440	7,005	97
Effects of exchange rate changes		30	–	–	–
Cash and cash equivalents at the end of the year	18	3,813	1	5,170	3,440

¹ More information is detailed in Note 30 to the financial statements.

The notes on pages 90 to 116 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 46 Grafton Street, Manchester M13 9NT. 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 2021.

The financial statements of Nanoco Group plc and its subsidiaries (the "Group") for the year ended 31 July 2021 were authorised for issue by the Board of Directors on 3 November 2021 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, International Financial Reporting Standards ("IFRS") adopted pursuant to Regulation (EC) No. 1606/2002 as it applies in the European Union and IFRSs as issued by the International Accounting Standards Board for the year ended 31 July 2021.

(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.

(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 October 2023, a period of two years from the date of approval of the Annual Report and these financial statements. 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:

- the development programme with the European electronics customer is successful and subsequently leads to scale up of the product and thereafter to small scale commercial production in a low volume application;
- commercial services contracts are based on the existing pipeline of opportunities or agreements already in place;
- no revenue is assumed from other business lines though some small scale commercial deals are currently under discussion;
- the Group's variable costs remain in line with manufacturing activities;
- Board costs reflect the 35% deferment of Non-Executive Directors' fees as agreed;
- 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 base case produces a cash flow statement that demonstrates that the Group has sufficient cash throughout the two year period of the forecast.

However, the Board acknowledges that the base case includes an element of risk that some or all of these non-contracted projects may not convert to sales during the forecast period. Accordingly, the Board has considered the downside scenario in which no revenue, except that already contracted or under contractual negotiation, is achieved during the period.

In this downside scenario, management action to reduce the activities of the Group to an IP shell that supports the Samsung lawsuit allows the Group to maintain a cash runway to the middle of 2023. All of the potential cost savings are under the direct control of the Board and the Board has the ability and intention to make such changes on a timely basis if required.

2. Basis of preparation continued

(c) Going concern continued

IAS 1 Presentation of Financial Statements requires the Directors to disclose "material uncertainties related to events or conditions that may cast significant doubt upon the Group's ability to continue as a going concern". The Directors consider that the timing of adequate commercial production orders and the implementation of any necessary restructuring plans if those revenues are delayed is a material uncertainty which may cast significant doubt about the Group's and the Parent Company's ability to continue as a going concern.

Nevertheless, considering the mitigating actions that are within management's control and can be taken and after making enquiries and considering the uncertainty described above, 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 (para 12) include, but are not limited to, situations where the carrying amount of the net assets of the entity is more than their 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 to be market value (calculated as market capitalisation at year end) less costs to sell. As the market value was in excess of the book value, no further impairment is proposed.

However, in line with IFRS 9, the Group and Company assesses on a forward-looking basis the expected credit losses (ECL) associated with its debt instruments carried at amortised cost. 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. Given the trading history of the intercompany entities, an impairment of £6.5 million has been recognised on the intercompany trading balance owed by Nanoco Technologies Limited to Nanoco Group plc.

Notes to the financial statements continued

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 value in use. The value in use calculation uses cash flows based on budgets that have been approved by the Directors. 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 £0.6 million (2020: £0.1 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.

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.

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 is recognised to the extent that it is probable that economic benefits will flow to the Group and the revenue can be reliably measured. Revenue is measured at the fair value of the consideration received or receivable for the sale of goods or services, excluding discounts, rebates, VAT and other sales taxes or duties.

The Group's revenues to date comprise amounts earned under joint development agreements, individual project development programmes and material supply and licence agreements and revenue from the sale of quantum dot products.

Revenues received in advance of work performed from development programmes are recognised on a straight-line basis over the period that the development work is being performed as measured by contractual milestones. Revenue is not recognised where there is uncertainty regarding the achievement of such milestones and where the customer has the right to recoup advance payments.

Contractual payments received from licence agreements are recognised as revenue when goods, services or rights and entitlements are supplied. Upfront licence fees, where control over the intellectual property has been retained by the Group, are taken to income on a straight-line basis over the initial period of the contract in accordance with the continuing obligations under the contract.

Revenue from the sale of products is recognised at the point of transfer of risks and rewards of ownership, which is generally on shipment of product.

IFRS 15 requires the identification of deliverables in contracts with customers that qualify as performance obligations. For any contracts in the year, we have used the five-step process identified by IFRS 15 and applied this.

(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.

(f) Cost of sales

Cost of sales comprises the materials 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.

Notes to the financial statements continued

3. Significant accounting policies continued

(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 and maintenance of intellectual property as these are considered to generate probable future economic benefits and are capitalised as intangible assets (see note 14).

(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.

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
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(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 estimated future cash flows are discounted to their present value using a pre-tax discount rate that reflects current market assessments of the time value of money and the risks specific to the asset. 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.

Notes to the financial statements continued

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 fair value and subsequently measured at either fair value or 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 fair value. 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 fair value. 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.

3. Significant accounting policies continued

(r) Share-based payments continued

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.

(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 recognized 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 recognized 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.

On transition to IFRS 16, the Group elected to apply the following practical expedients on a lease by lease basis as allowed by the standard:

- to apply a single discount rate to a portfolio of leases with reasonably similar characteristics;
- to rely upon previous assessments of onerous leases; and
- to apply the short-term and low value exemptions.

All of these leases relate to property. None of these are sub-let. 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%.

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.

Notes to the financial statements continued

3. Significant accounting policies continued

(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:

- Amendments to IFRS 3: Definition of a Business;
- Amendments to IAS 1 and IAS 8 Definition of Material;
- Amendments to IFRS 7, IFRS 9 and IAS 39 Interest Rate Benchmark Reform;
- Conceptual Framework for Financial Reporting issued on 29 March 2018; and
- Amendments to IFRS 16: Covid-19 Related Rent Concessions.

The following standards and amendments to standards have been issued but are not effective for the financial year beginning 1 August 2020 and have not been early adopted:

- Amendments to IAS 1: Classification of Liabilities as Current or Non-current;
- Reference to the Conceptual Framework – Amendments to IFRS 3;
- Property, Plant and Equipment: Proceeds before Intended Use – Amendments to IAS 16;
- Onerous Contracts – Costs of Fulfilling a Contract – Amendments to IAS 37; and
- IFRS 9 Financial Instruments – Fees in the ‘10%’ test for derecognition of financial liabilities.

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 2021 and 2020 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 2021 £'000	31 July 2020 £'000
Analysis of revenue		
Products sold	685	448
Rendering of services	1,303	2,981
Royalties and licences	103	427
	2,091	3,856

There was one material customer who generated revenue of £1,590,000 (2020: one material customer amounting to £2,475,000).

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:

	31 July 2021 £'000	31 July 2020 £'000
Revenue		
UK	28	17
Europe (excluding UK)	1,618	1,111
Asia	411	228
USA	34	2,500
	2,091	3,856

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 £5,080,000 (2020: £5,972,000).

5. Other operating income

	31 July 2021 £'000	31 July 2020 £'000
Government grants	183	101

6. Operating loss

	31 July 2021 £'000	31 July 2020 £'000
Operating loss is stated after charging/(crediting):		
Depreciation of tangible fixed assets (see note 12)	99	590
Depreciation of right of use assets (see note 13)	408	505
Profit on disposal of assets	(48)	–
Amortisation of intangible assets (see note 14)	618	633
Impairment of intangible assets (see note 14)	623	120
Lease costs of low value/short life lease obligations	10	8
Staff costs (see note 8)	3,150	4,513
Government aid (Coronavirus Job Retention Scheme)	(285)	(302)
Foreign exchange (gains)/losses	47	80
Research and development expense ¹	2,150	3,143
Share-based payments	417	360

1 Included within research and development expense are staff costs totalling £1,700,000 (2020: £2,477,000) also included in note 8.

Auditors' remuneration

	31 July 2021 £'000	31 July 2020 £'000
Audit services:		
– Fees payable to Company auditors for the audit of the Parent and the consolidated accounts	80	72
– Auditing the accounts of subsidiaries pursuant to legislation	35	33
Fees payable to Company auditors for other services:		
– Assurance services in connection with the review of interim results	–	15
Total auditors' remuneration	115	120

7. Exceptional costs

During the prior financial year, the Group incurred a number of charges which are considered to be exceptional in nature.

(Charge)/income	31 July 2021 £'000	31 July 2020 £'000
Formal Sales Process (legal fees)	–	(293)
Fundraise (adviser and commitment fees)	–	(237)
IP litigation (prior to litigation funding agreement)	–	(64)
Restructuring cost	–	(128)
Total exceptional costs	–	(722)

During the prior year, as part of the strategic review, the Group entered into a Formal Sales Process that was subsequently terminated after the start of the Covid-19 pandemic. In July 2020, the Group carried out a fundraising exercise, raising £3.2 million net of costs. Also during the year, the Group initiated a significant lawsuit against Samsung for wilful infringement of its IP. All three activities incurred adviser costs for processes that are considered corporate in nature and hence do not form part of the underlying business of the Group. They are therefore classified as exceptional to allow the reader a better understanding of underlying performance. Following the resource pivot in our Display business in the second quarter, a restructuring exercise reflecting our "dot only" focus in display activities was implemented. This exercise completed in the fourth quarter of year ended 31 July 2020.

Notes to the financial statements continued

8. Staff costs

The Group's costs for employees, including Directors, during the year were as follows:

	31 July 2021 £'000	31 July 2020 (Restated) ¹ £'000
Wages and salaries	2,705	3,954
Social security costs	329	346
Other pension costs	116	166
	3,150	4,466
Share-based payments	417	360
Government aid (Coronavirus Job Retention Scheme)	(285)	(302)
	3,282	4,524
Directors' remuneration (including benefits in kind) included in the aggregate remuneration above comprised:		
Emoluments for qualifying services	708	908

¹ More information is detailed in Note 30 to the financial statements.

Emoluments for Directors of the Group (excluding social security costs and long-term incentives, but including benefits in kind) disclosed above include £298,000 paid to the highest paid Director (2020: £323,000). 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 (2020: three).

Aggregate gains made by Directors during the year following the exercise of share options were £nil (2020: £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 2021 Number	31 July 2020 Number
Directors	5	6
Laboratory and administrative staff	46	66
	51	72

9. Finance income and expense

Group	31 July 2021 £'000	31 July 2020 £'000
Finance income		
Interest receivable	–	8
Finance expense		
Loan note interest	(36)	(29)
Unwinding interest on lease liabilities	(31)	(51)
Other interest payable	(4)	(7)
	(71)	(79)

10. Taxation

The tax credit is made up as follows:

Group	31 July 2021 £'000	31 July 2020 £'000
Current income tax		
Research and development income tax credit receivable	(689)	(909)
Adjustment in respect of prior years	3	16
	(686)	(893)
Deferred tax		
Charge for the year	–	–
Total income tax credit	(686)	(893)

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 2021 £'000	31 July 2020 £'000 (Restated) ¹
Loss before taxation	(5,080)	(5,972)
Tax at standard rate of 19% (2020: 19%)	(965)	(1,135)
Effects of:		
Expenses not deductible for tax purposes	–	58
Capital allowances in excess of depreciation	16	16
Additional deduction for research and development expenditure	(514)	(660)
Surrender of research and development relief for repayable tax credit	875	1,216
Research and development tax credit receivable	(684)	(904)
Share options exercised (CTA 2009 Pt 12 deduction)	–	–
Losses and share-based payment charges carried forward not recognised in deferred tax	583	500
Adjustment in respect of prior years	3	16
Tax credit in income statement	(686)	(893)

¹ More information is detailed in Note 30 to the financial statements.

The Group has accumulated losses available to carry forward against future trading profits of £37.4 million (2020: £34.5 million).

Deferred tax liabilities/(assets) provided/(recognised) at a standard rate of 19% (2020: 19%) are as follows:

	31 July 2021 £'000	31 July 2020 £'000
Accelerated capital allowances	–	–
Tax losses	–	–
	–	–

The Group also has deferred tax assets, measured at a standard rate of 19% (2020: 19%), in respect of share-based payments of £159,000 (2020: £221,000) and tax losses of £7,105,000 (2020: £6,552,000) 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.

In the Spring Budget 2021, the Government announced that from 1 April 2023 the corporation tax rate will increase to 25%. At the balance sheet date, the proposal to increase the rate to 25% had not been substantively enacted, substantive enactment occurred on 24 May 2021, therefore, its effects are not included in these financial statements. However, it is likely that the overall effect of the change, had it been substantively enacted by the balance sheet date, have no effect on the tax credit of the Group.

Notes to the financial statements continued

11. Earnings per share

Group	31 July 2021 £'000	31 July 2020 (Restated) ¹ £'000
Loss for the financial year attributable to equity shareholders	(4,395)	(5,076)
Share-based payments	417	360
Loss for the financial year before share-based payments	(3,978)	(4,716)
Weighted average number of shares		
Ordinary shares in issue	305,699,102	287,070,824
Adjusted loss per share before share-based payments (pence)	(1.30)	(1.64)
Basic loss per share (pence)	(1.44)	(1.77)

1 More information is detailed in Note 30 to the financial statements.

Diluted loss per share has not been presented above as the effect of share options issued is anti-dilutive.

12. Tangible fixed assets

Group	Laboratory infrastructure £'000	Office equipment, fixtures and fittings £'000	Plant and machinery £'000	Total £'000
Cost				
At 1 August 2019	3,403	552	8,364	12,319
Additions	–	3	103	106
At 31 July 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
Accumulated depreciation				
At 1 August 2019	3,372	406	7,794	11,572
Charged during the year	13	70	507	590
At 31 July 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
Net book value				
At 31 July 2021	–	34	165	199
At 31 July 2020	18	79	166	263

The aggregate original cost of tangible assets now fully depreciated but considered to be still in use is £11,282,000 (2020: £11,088,000).

Capital commitments

At 31 July 2021, the Group had capital commitments amounting to £nil in respect of orders placed for capital expenditure (2020: £nil).

13. Right of use assets

Right of use assets	Total £'000
Cost	
At 1 August 2020	1,117
Additions	136
At 31 July 2021	1,253
Accumulated depreciation	
At 1 August 2020	(505)
Charged during the year	(408)
At 31 July 2021	(913)
Net book value	
At 31 July 2021	340
At 1 August 2020	612

Lease liabilities	Total £'000
Opening liabilities at 1 August 2020	(1,184)
Additions	(136)
Lease payments	673
Interest charge	(31)
Closing net book value at 31 July 2021	(678)

14. Intangible assets

Group	Patents £'000
Cost	
At 1 August 2019	6,713
Additions	598
At 31 July 2020	7,311
Additions	357
At 31 July 2021	7,668
Accumulated amortisation	
At 1 August 2019	2,816
Charged during the year	633
Impairment charge	120
At 31 July 2020	3,569
Charged during the year	618
Impairment charge	623
At 31 July 2021	4,810
Net book value	
At 31 July 2021	2,858
At 31 July 2020	3,742

Notes to the financial statements continued

14. Intangible assets continued

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 £1,026,000 (2020: £788,000).

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 £623,000 (2020: £120,000) have been fully impaired in these financial statements. The impairment charge is recognised within administrative expenses.

15. Investment in subsidiaries

Company	Shares £'000	Share impairment £'000	Loans £'000	Loan impairment £'000	Total £'000
At 1 August 2019 (Restated)¹	63,235	(24,006)	24,297	(24,175)	39,351
Increase in respect of share-based payments	–	–	360	–	360
Cash transfer	–	–	2	–	2
At 31 July 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)	40,198
By subsidiary					
Nanoco Tech Limited	63,235	(24,006)	–	–	39,229
Nanoco Life Sciences Limited	–	–	20,286	(20,286)	–
Nanoco Technologies Limited	–	–	4,788	(3,889)	899
At 31 July 2021	63,235	(24,006)	25,074	(24,175)	40,198

¹ More information is detailed in Note 30 to the financial statements.

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 17) 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 2021 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.

15. Investment in subsidiaries continued

Loans to subsidiary undertakings carry no interest and are repayable on demand. Further information in relation to these loans is given in note 28.

Subsidiary undertakings	Country of incorporation	Principal activity	Share of issued ordinary share capital	
			31 July 2021	31 July 2020
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 46 Grafton Street, Manchester M13 9NT. 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.

16. Inventories

	31 July 2021 Group £'000	31 July 2021 Company £'000	31 July 2020 Group £'000	31 July 2020 Company £'000
Raw materials, finished goods and consumables	110	–	140	–

A total of £204,000 (2020: £290,000) 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 £136,000 (2020: £141,000) in respect of excess or slow moving items. Movement in the allowance was due to utilisation in the year.

17. Trade and other receivables

	31 July 2021 Group £'000	31 July 2021 Company £'000	31 July 2020 Group £'000	31 July 2020 Company £'000
Trade receivables	858	–	489	–
Prepayments and accrued income	212	–	397	–
Inter-company short-term loan to subsidiary	–	66,889	–	60,383
Less impairment provision	–	(66,889)	–	(60,383)
Other receivables	157	–	132	–
	1,227	–	1,018	–

The impairment of the short-term loan is explained in note 15. 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 and that no impairment is required at the reporting date. Therefore there is no provision for impairment at the balance sheet date (2020: £nil).

Trade receivables are denominated in the following currency:

	31 July 2021 Group £'000	31 July 2021 Company £'000	31 July 2020 Group £'000	31 July 2020 Company £'000
US Dollars	782	–	156	–
Euros	–	–	88	–
Sterling	76	–	245	–
	858	–	489	–

Notes to the financial statements continued

17. Trade and other receivables continued

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
2021	253	605	–	–	858
2020	442	47	–	–	489

18. Cash and cash equivalents

	31 July 2021 Group £'000	31 July 2021 Company £'000	31 July 2020 Group £'000	31 July 2020 Company £'000
Cash and cash equivalents	3,813	1	5,170	3,440

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 2021 (2020: none).

An analysis of cash, cash equivalents and deposits by denominated currency is given in note 27.

19. Trade and other payables

	31 July 2021 Group £'000	31 July 2021 Company £'000	31 July 2020 Group (Restated) ¹ £'000	31 July 2020 Company £'000
Current				
Trade payables	677	–	1,304	–
Other payables	63	–	71	–
Accruals	877	80	952	–
	1,617	80	2,327	–

¹ More information is detailed in Note 30 to the financial statements.

The Directors consider that the carrying amount of trade and other payables approximates to their fair value. The average credit period taken is 39 days (2020: 51 days).

20. Financial liabilities

	31 July 2021 Group £'000	31 July 2021 Company £'000	31 July 2020 Group £'000	31 July 2020 Company £'000
Non-current				
Long-term loan from subsidiary	–	450	–	450
Convertible Series A loan note 2028	400	–	400	–
Accrued interest	92	–	62	–
Loan notes (net of costs)	2,989	2,989	–	–
Accrued interest on loan notes	6	6	–	–
	3,487	3,445	462	450

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. Interest is not charged on inter-company loans (2020: no interest).

20. Financial liabilities continued

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 2019	433	450
Interest on convertible loan	29	–
At 31 July 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

During the year, there was a new 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, 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 70p 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 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.

21. Deferred revenue

	31 July 2021 Group £'000	31 July 2021 Company £'000	31 July 2020 Group £'000	31 July 2020 Company £'000
Current				
Upfront licence fees	103	–	103	–
Milestone payments	150	–	500	–
	253	–	603	–
Non-current				
Upfront licence fees	146	–	249	–
	399	–	852	–

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.

22. Lease liabilities

	31 July 2021 Group £'000	31 July 2021 Company £'000	31 July 2020 Group £'000	31 July 2020 Company £'000
Current				
Property leases	545	–	642	–
Non-current				
Property leases	133	–	542	–

Notes to the financial statements continued

23. Issued equity capital

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 2019	286,219,246	28,622	115,831	(77,868)	66,585
Shares issued on placement	19,479,856	1,948	1,461	–	3,409
At 31 July 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

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.

Shares issued on placing

On 15 July 2020, 19,479,856 shares were issued at 17.5 pence each.

Company	Number	Share capital £'000	Share premium £'000	Total £'000
Allotted, called up and fully paid ordinary shares of 10p				
At 1 August 2019	286,219,246	28,622	115,831	144,453
Shares issued on placement	19,479,856	1,948	1,461	3,409
At 31 July 2020	305,699,102	30,570	117,292	147,862
At 31 July 2021	305,699,102	30,570	117,292	147,862

24. Share-based payment reserve

Group and Company	£'000
At 1 August 2019 (Restated)¹	3,541
Share-based payments	360
At 31 July 2020	3,901
Share-based payments	417
At 31 July 2021	4,318

¹ More information is detailed in Note 30 to the financial statements.

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 £417,000 has been recognised in the statement of comprehensive income for the year (2020: charge of £360,000).

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 November 2011

Share options were granted to staff and Executive Directors on 25 November 2011. The options granted to Executive Directors were subject to commercial targets being achieved. The exercise price was set at 50 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 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.

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 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. The options vest at the end of three years from the date of grant and are exercisable until the tenth anniversary of the award. The awards are not subject to performance conditions. Vesting of the award is subject to the employee remaining a full-time member of staff at the point of vesting. No options were granted to Executive Directors.

Grant in October 2014

Share options were granted to an Executive Director on 14 October 2014. The exercise price was set at 10 pence, being the nominal value of the share. 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 vest at the end of three years from the date of grant and are exercisable until the tenth anniversary of the award. The awards are subject to performance conditions which were amended during the year so as to be in line with the 2015 LTIP scheme. As a result of the modification, the fair value of the award was reduced. However, in accordance with IFRS 2 no change was made to the charge in the financial statements. 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, April 2016, November 2017, November 2018, October 2020 and October 2021

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. 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.

Other awards

Share options are awarded to management and key staff as a mechanism for attracting and retaining key members of staff. The options are issued at either market price on the day preceding grant or, in the event of abnormal price movements, at an average market price for the week preceding grant date. On 14 October 2015, unapproved options were granted to a member of staff with an exercise price of 56.5 pence. These options vested over a three-year period from the date of grant with performance conditions and are exercisable until the tenth anniversary of the award. Vesting of the award is subject to the employee remaining a full-time member of staff at the point of vesting. The fair value benefit is measured using a binomial valuation model, taking into account the terms and conditions upon which the share options were issued.

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 are delivered in the form of a share award under the DBP. The awards vest in FY22, after the required two-year holding period.

Notes to the financial statements continued

24. Share-based payment reserve continued

Share option schemes continued

Nanoco Group plc 2015 Long Term Incentive Plan ("LTIP") continued

Deferred Bonus Plan ("DBP") continued

The following tables illustrate the number and weighted average exercise prices of, and movements in, share options during the year.

Group and Company	2021 total Number	2020 total Number
Outstanding at 1 August	17,681,547	18,150,305
Granted during the year	8,462,165	3,380,932
Exercised during the year	–	–
Forfeited during the year	(236,529)	–
Expired during the year	(445,000)	–
Lapsed during the year	(4,027,533)	(3,849,690)
Outstanding at 31 July	21,434,650	17,681,547
Exercisable at 31 July	7,582,097	7,887,247

Weighted average exercise price of options

Group and Company	2021 Pence	2020 Pence
Outstanding at 1 August	37.5	24.5
Granted during the year	–	–
Exercised during the year	–	–
Expired during the year	9.9	–
Lapsed during the year	–	26.8
Outstanding at 31 July	28.8	37.5

The weighted average exercise price of options granted during the year to 31 July 2021 was nil (2020: nil). The range of exercise prices for options outstanding at the end of the year was nil-110.00 pence (2020: nil-110.75 pence).

For the share options outstanding as at 31 July 2021, the weighted average remaining contractual life is 6.42 years (2020: 4.91 years). The aggregate fair value of options issued in the year was £330,000 (2020: £397,000).

The following table lists the inputs to the models used for the years ended 31 July 2021 and 31 July 2020.

Group and Company	Market performance-linked grants		Non-market performance-linked grants	
	2021	2020	2021	2020
Expected volatility	110.6%	N/A	N/A	103.0%
Risk-free interest rate	0.00%	N/A	N/A	0.43%
Expected life of options (years average)	3	N/A	N/A	2
Weighted average exercise price	Nil	N/A	N/A	Nil
Weighted average share price at date of grant	9.67p	N/A	N/A	14p
Expected dividends	–	–	N/A	–
Model used	Stochastic	N/A	N/A	Finnerty

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 2019, 31 July 2020 and 31 July 2021	(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 2019, 31 July 2020 and 31 July 2021	(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 (Restated) ¹ £'000	Foreign currency translation reserve £'000	Treasury shares £'000	Total accumulated losses (Restated) ¹ £'000
At 1 August 2019	(60,528)	1	(20)	(60,547)
Loss for the year (Restated)	(5,079)	–	–	(5,079)
Other comprehensive income	–	3	–	3
At 31 July 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)

¹ More information is detailed in Note 30 to the financial statements.

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 2021 no shares in the Company were held by the EBT (2020: nil). In addition there are 12,222 (2020: 12,222) treasury shares not held by the EBT.

Company	Accumulated losses £'000	Treasury shares £'000	Total accumulated losses £'000
At 1 August 2019	(113,378)	(20)	(113,398)
Loss for the year	(64)	–	(64)
At 31 July 2020	(113,442)	(20)	(113,462)
Loss for the year	(6,516)	–	(6,516)
At 31 July 2021	(119,958)	(20)	(119,978)

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 retained earnings as disclosed in notes 23 to 26 and in the Group statement of changes in equity. At 31 July 2021 total equity was £3,052,000 (Restated 2020: £7,030,000).

The Company is not subject to externally imposed capital requirements.

Notes to the financial statements continued

27. Financial risk management continued

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.

At the reporting date the Group was cash positive with no outstanding borrowings.

Categorisation of financial instruments

Financial assets/(liabilities)	Financial assets at amortised cost £'000	Financial liabilities at amortised cost (Restated) ¹ £'000	Group (Restated) ¹ £'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)

¹ More information is detailed in Note 30 to the financial statements.

Financial assets/(liabilities)	Financial assets at amortised cost £'000	Financial liabilities at amortised cost £'000	Group £'000	Financial assets and liabilities at amortised cost Company £'000
31 July 2020				
Cash and cash equivalents	5,170	–	5,170	3,440
Trade receivables	489	–	489	–
Other receivables ¹	132	–	132	–
Inter-company short-term loan to subsidiary	–	–	–	60,383
Less impairment provision	–	–	–	(60,383)
Trade and other payables	–	(2,327)	(2,327)	–
Lease liabilities	–	(1,184)	(1,184)	–
Loan notes and accrued interest	–	(462)	(462)	–
Inter-company long-term loan from subsidiary	–	–	–	(450)
	5,791	(3,973)	1,818	2,990

¹ This figure has been adjusted in prior year.

27. Financial risk management continued

Categorisation of financial instruments continued

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 17, which was neither past due nor impaired. All trade receivables are ultimately overseen by the UK Finance Director 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.

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 flow 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 2021 or at 31 July 2020.

The split of Group assets between Sterling and other currencies at the year end is analysed as follows (Company assets are all in Sterling):

Group	31 July 2021				31 July 2020			
	GBP £'000	EUR £'000	USD £'000	Total £'000	GBP £'000	EUR £'000	USD £'000	Total £'000
Cash and cash equivalents	3,255	65	493	3,813	4,644	407	119	5,170
Trade receivables	76	–	782	858	245	88	156	489
Trade payables	(669)	(1)	(7)	(677)	(1,157)	(10)	(137)	(1,304)
	2,662	64	1,268	3,994	3,732	485	138	4,355

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 2021 £'000	Impact on loss before tax and Group equity 2020 £'000
10%	150	85
5%	71	40
(5%)	(64)	(37)
(10%)	(123)	(70)

Notes to the financial statements continued

27. Financial risk management continued

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:

Group	31 July 2021			31 July 2020		
	Fixed rate £'000	Floating rate £'000	Total £'000	Fixed rate £'000	Floating rate £'000	Total £'000
Cash and cash equivalents	–	3,813	3,813	–	5,170	5,170
Loan notes	(3,389)	–	(3,389)	(400)	–	(400)
Company						
Cash and cash equivalents	–	1	1	–	3,440	3,440
Loan notes	(2,989)	–	(2,989)	–	–	–

The exposure to interest rate movements is immaterial.

Maturity profile

Set out below is the maturity profile of the Group's financial liabilities at 31 July 2021 and 31 July 2020 based on contractual undiscounted payments, including contractual interest.

	Less than one year £'000	One to five years £'000	Greater than five years £'000	Total £'000
2021				
Financial liabilities				
Trade and other payables	1,617	–	–	1,617
Lease liabilities	545	133	–	678
Loans (including contractual interest)	–	4,150	751	4,901
	2,162	4,283	751	7,196
2020				
Financial liabilities				
Trade and other payables	2,327	–	–	2,327
Lease liabilities	642	542	–	1,184
Convertible loan (including contractual interest)	–	–	751	751
	2,969	542	751	4,262

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 2021 £'000	31 July 2020 £'000
Long-term loans owed to Nanoco Group plc by			
Nanoco Life Sciences Limited		20,286	20,286
Nanoco Technologies Limited ¹		4,788	4,265
		25,074	24,551
Less provision against debt owed by Nanoco Life Sciences Limited	15	(20,286)	(20,286)
Less provision against debt owed by Nanoco Technologies Limited	15	(3,889)	(3,889)
		899	376
Short-term loan owed to Nanoco Group plc by			
Nanoco Technologies Limited ²	17	66,889	60,383
Less impairment provision	17	(66,889)	(60,383)
		-	-
Long-term loan owed by Nanoco Group plc to			
Nanoco Tech Limited	20	(450)	(450)

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)

	2021 £'000	2020 £'000
Short-term employee benefits	710	1,314
Pension costs	20	46
Benefits in kind	-	-
Share-based payments	189	334
	919	1,694

The key management team comprises the Directors and two members of staff (2020: three) who are not Directors of the Company. The staff members of the team are the UK Finance Director and the Operations Director.

Notes to the financial statements continued

30. Prior year restatement

The following table summarises the impact of restatements arising from the correction of prior year errors on the Group's retained earnings:

	Share based payment reserve £'000	Accumulated losses £'000
At 1 August 2019 as reported	3,419	(60,239)
Amendment to dilapidations calculation	–	(186)
Amendment to calculation of SBP	122	(122)
Restated at 1 August 2019	3,541	(60,547)

Amendment to dilapidations calculation

During the year, management decided to exit the first floor of the Group's Manchester facility instead of extending the lease when it expires in April 2022 as a material cost reduction measure (saving approximately £0.6m per annum from April 2022). As a result, management have re-assessed the potential dilapidation costs on leased properties. Upon discussions with landlords around potential exit obligations, and after obtaining external third party valuations which exclude potential receipts from sales of surplus assets, the Group has increased the existing provisions for wear and tear. In accordance with IFRS, an adjustment has therefore been posted to the opening reserves and provisions as at 1 August 2019 (since the leases were signed a number of years before and in some cases the original leases had already expired by that date).

In the prior year, this adjustment increased administrative costs by £28,000.

Amendment to calculation of SBP

Since 2015, when issuing deferred share options under the Group's Deferred Bonus Plan (DBP) in respect of annual bonus targets being achieved for executive directors, the fair value charge for the share options was recognised between the grant date of the deferred share options and their vesting date two years later. This fair value charge has now been amended to be incurred from the start of the performance period for the bonus was achieved, through to the vesting date of the share options (typically just over three years). This change largely relates to the FY19 DBP share option grant. In accordance with IFRS, an adjustment has therefore been posted to the opening reserves and provisions as at 1 August 2019.

In the prior year, this adjustment decreased the share based payment charge by £16,000.

Impact of adjustments on prior year loss per share

The impact on the loss per share of both the above prior year adjustments is to increase it from 1.76p to 1.77p.

Investor information

Directors

Dr Christopher Richards	Non-Executive Chairman
Brian Tenner	Chief Executive Officer
Dr Nigel Pickett	Chief Technology Officer
Chris Batterham	Non-Executive Director
Dr Alison Fielding	Senior Independent Non-Executive Director
Henry Turcan	Non-Executive Director

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