

This announcement contains inside information.

Oxford Nanopore Technologies plc

Final results for the year ended 31 December 2022

Strong underlying¹ LSRT revenue growth of 30% in 2022, driven by innovation and customer acquisition; expect underlying annual LSRT revenue growth of more than 30% in both 2023 and in the medium term, reflecting the continued growth and diversification of the broader user base

Oxford Nanopore Technologies plc (LSE: ONT) ("Oxford Nanopore" or the "Group"), the company delivering a new generation of molecular sensing technology based on nanopores, today announces its final results for the year ended 31 December 2022.

Gordon Sanghera, Chief Executive Officer, commented:

"2022 was another year of significant progress for Oxford Nanopore. Demand for our differentiated technology continues to grow around the world and across many areas of scientific research, including human, cancer, animal, plant, pathogen and environmental genomics. This has underpinned a 30.5% growth in active customer accounts and underlying LSRT revenue growth of 30% despite a challenging macroeconomic environment. We have remained relentlessly focused on innovation, with the well-received new technologies launched in 2022 further strengthening Oxford Nanopore's unique position as a highly accessible, accurate, information rich platform at any scale.

"This platform makes us well-placed to capture the significant opportunities we see ahead, both in scientific research and beyond. The partnerships we have signed in the last year start to demonstrate the attractiveness of our technology in the clinical and applied markets and provide a strong foundation for further progress.

"We enter 2023 with good momentum. Our balance sheet remains strong and we will continue to invest in ground-breaking innovations and operational expansion to support continuous growth and deliver long-term value for shareholders."

Summary financial performance

£ million Unless otherwise stated	2022	2021	Change reported	Change CC ²
Revenue	198.6	133.7	+49%	+43%
- Life Science Research Tools (LSRT) revenue	146.8	127.0	+16%	+10%
- Non-recurring Covid testing revenue ³	51.8	6.7	+673%	+673%
Gross profit	123.8	73.2	+69%	
Gross margin	62.3%	54.8%	+750 bps	
LSRT Gross margin	56.3%	53.8%	+250 bps	
Adjusted EBITDA⁴	(78.6)	(57.7)	(20.9)	
Loss for the period	(91.0)	(167.6)	+76.6	

Financial highlights: strong underlying revenue and margin growth in LSRT business

- Life Science Research Tools (LSRT) revenue increased by 16% to £146.8 million (FY21: £127.0 million), up 10% on a constant currency basis, primarily driven by increasing customer numbers, across a breadth of applications. Underlying growth, excluding foreign exchange and revenue from the Emirati Genome Program (EGP) and COVID-19 sequencing, was approximately 30%.
- At a regional level, revenues were predominantly driven by growth in the Group's two largest regions, the Americas and Europe, as well as strong growth in China, with revenues up, on a constant currency basis, by 32%, 29% and 66% respectively. UAE revenue was impacted by a decline in EGP revenue, resulting in a 54% reduction on a constant currency basis.
- Group revenue increased to £198.6 million (FY21: £133.7 million), reflecting a £19.8 million increase in LSRT revenue and non-recurring revenue of £51.8 million following the conclusion of the Group's Covid testing contract with the Department of Health and Social Care (DHSC), as previously announced.
- LSRT gross profit margin increased by 250 basis points to 56.3% (FY21: 53.8%), predominantly driven by automation, recycling of electronic components and improvements in manufacturing techniques.
- Adjusted EBITDA loss of £(78.6) million (FY21: £(57.7) million); higher LSRT gross profit offset by increased investment in R&D and commercial and marketing teams, to support long term sustainable growth.
- Reduction in Loss for the period to £(91.0) million (FY21: £(167.6) million), driven by the higher LSRT gross profit, the settlement of the DHSC contract, the sale of the Gosling Building and the net decrease in the provision for employer's social security taxes on share awards, partly offset by higher operating expenses.
- Cash, cash equivalents and other liquid investments of £558.0 million⁵, compared to £618.2 million as of 31 December 2021.

2022 business highlights

¹ Underlying growth excludes foreign exchange and revenue from the Emirati Genome Program (EGP) and COVID-19 sequencing

² Constant currency applies the same rate to the FY22 and FY21 non-GBP results based on FY21 rates

³ Non-recurring revenue following the conclusion of the Covid testing contract with the DHSC

⁴ Adjusted EBITDA is loss for the year before income tax expense, finance income, loan interest, interest on lease, depreciation and amortisation adjusted for: i) share-based payment expense on Founder LTIP awards; ii) employer's social security taxes on Founder LTIP and pre-IPO share awards; iii) IPO costs expensed in the Statement of Comprehensive Income; iv) impairment of investment in associate; v) gain on sale of property; and vi) settlement of the Covid testing contract.

⁵ Cash and cash equivalents, treasury deposits and investment bonds (excluding unrealised interest) at 31 December 2022

Continued innovation to strengthen our unique market position

- **Delivering high-accuracy, high-output sequencing technology:** Early access⁶ launch of “Q20+ chemistry”, combining new flow cells and preparation kits, delivering the most complete and accurate genomic data, that can be used across the platform on small or ultra-high output devices. This combines very high single-molecule accuracy (>99%) with the ability to reach all parts of the genome and characterise all types of genetic variation
- **Highest accuracy:** Developer access release of High Duplex flow cells for the most challenging of use cases, such as ‘Telomere to Telomere’ genomes or rare variant detection, duplex⁷ accuracy delivers over 99.9% accuracy at a single molecule level
- **New device formats to reshape market:** First early access shipments of the palm-sized PromethION 2 Solo (P2 Solo) device, a high-output, low cost nanopore sequencer, designed to make high-output sequencing more accessible
- **Enabling real-time methylation analysis, for broad applications:** Release of Remora, a tool to enable real time, high-accuracy epigenetic insights with nanopore-based sequencing, making Oxford Nanopore the most comprehensive technology for characterising methylation
- **Platform expansion to sequence any-length DNA/RNA fragments, for broad applications:** Release of Short Fragment Mode to enable nanopore-based sequencing of native DNA/RNA fragments as short as 20 bases, enabling any length reads on one platform; a true technology differentiator in the current market

Continued growth in customers and scientific impact

- **Expanding user base and use cases in biological research:** Continued increase in the user base and utilisation of nanopore-based sequencing in life science research; a net increase of 1,938 active customer accounts in the period, growth of 30.5%, taking total active accounts to 8,283 at 31 December 2022
- **Scientific publications showcase impact of differentiated technology:** Approximately 3,000 peer review publications published by the Nanopore community in 2022, highlighting applications across a number of scientific research areas including human, cancer, animal, plant, pathogen and environmental genomics. Total of >8,200 publications to date
- **Increasing use of technology in clinical and applied/industrial market uses:** Building on foundational research discoveries, increasing development of methods designed to address needs in health (e.g. cancer, human genetics, infectious disease) or industrial use (e.g. pharma/biotech QC, food, agriculture)

Strategic collaborations to develop and access new growth markets

The Group is now driving expansion from use in LSRT for scientific discovery, through the translational journey where methods are developed and piloted that address needs in future clinical diagnostic or industrial “applied market” applications. First partnerships are being established to optimise the Group’s impact in emerging health (such as clinical research) and industrial applied markets.

Infectious disease:

- **Pneumonia:** Guys and St Thomas Hospital, progressed service evaluation on the intensive care unit under the Quality Innovation and Productivity and Prevention (QIPP) initiative, to demonstrate how real-time pneumonia metagenomic testing using nanopore sequencing improves early management of respiratory infections in around half of tested patients
- **Tuberculosis (TB):** In collaboration with FIND/WHO and Unitaaid, Oxford Nanopore progressed a ~400-sample study for a targeted sequencing assay to characterise TB and its antibiotic resistance properties from sputum, working closely with several countries for which TB control is vital to their health systems

Human genetics:

- **Transplants:** providing rapid insights and full characterisation of Human Leukocyte Antigen (HLA) using nanopore long reads, to support transplantation
 - New collaboration with Omixon, the global transplantation diagnostics company, which is launching NanoTYPE™ RUO, a Multiplex Human Leukocyte Antigen Amplification kit compatible with nanopore-based sequencing for rapid HLA typing in transplants
 - New collaboration with GenDx, which is developing NGS-Turbo®, a novel rapid high-resolution HLA typing kit aimed at improving transplant outcomes
- **Carrier screening:** new collaboration with Asuragen, a Bio-Techne company, to develop assays designed to deliver more accurate and reliable options for reproductive health and carrier screening

Cancer collaborations post period end

- Collaboration with Cyclomics for new “liquid biopsy” workflow using nanopore sequencing to detect molecules that are associated with cancer, circulating in blood. Method shows near 100% accuracy sequencing of the TP53 cancer gene and facilitates the detection of mutations at frequencies down to 0.02%
- Agreement with 4bases to combine nanopore sequencing devices and 4bases kits to support rapid, high-accuracy analyses in human and cancer genetics in Italy and Switzerland, with a first target of same-day BRCA1 and BRCA2 analysis

Technology collaborations

- New collaboration with 10x Genomics to make single-cell and spatial full-length isoform transcript sequencing accessible to any laboratory
- New collaboration with Tecan, post period end, to configure Tecan automation to enable easier nanopore library preparation for high-output or larger sample numbers

Investment in people to support growth strategy

- Increased global headcount (FTE) to 1,009 (31 December 2021: 803), including significant expansion in North America

⁶ Early access: products are available to all customers, but products are subject to availability and regular changes

⁷ Duplex refers to the analysis of combined measured signals from double-stranded DNA to produce a base-pair sequence read

- Commercial headcount grew to 291 at 31 December 2022, up 51% in the period. In February 2023, commercial headcount reached 301; achieving the goal we set out at IPO of doubling the commercial team
- Duncan Tatton-Brown appointed as Non-executive Chair, adding extensive experience as an executive and Non-Executive Director of FTSE companies

Continued strategic progress post period end

- Agreement signed with UPS to drive rapid and easy global logistics and ease of delivery for broad customer base, with specific impact in North America and Asia Pacific. Flow cells will be stored in UPS Healthcare's high tech distribution facility in Singapore for the first time and be delivered within 24 to 48 hours through UPS's distribution capabilities to destinations across the Asia Pacific.

Current trading and financial guidance

Whilst underlying demand has not changed, we saw a softening of orders in March 2023, much of which resulted from a drop in COVID-19 sequencing following a change in China's zero-COVID policy.

We expect full year 2023 LSRT revenue growth to be in the range of 16-30% on a constant currency basis, which includes an anticipated year-over-year headwind from COVID-19 sequencing of approximately £20m. On an underlying basis, excluding foreign exchange and revenue from the EGP and COVID-19 sequencing, we expect annual LSRT revenue growth of more than 30% in both 2023 and in the medium term, consistent with our performance over the last three years. This reflects the continued growth and diversification of our broader user base.

Our margin targets are unchanged. For full year 2023 we continue to target LSRT gross margins of greater than 60% and more than 65% in the medium term. Margin expansion will be driven by operational improvements including, automation, improved manufacturing process and recycling of electrical components.

The company is in a strong financial position, with £558.0 million of cash, cash equivalents and other liquid investments. Based on our current development and commercialisation plans, we also continue to target adjusted EBITDA breakeven by FY2026.

Presentation of results

Management will host a conference call and webcast today at 12:00pm GMT/ 7:00am EDT.

For details, and to register, please visit <https://nanoporetech.com/about-us/investors/reports>. The webcast will be recorded and a replay will be available via the same link shortly after the presentation.

For further details please contact OxfordNanoporeTechnologies@teneo.com

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About Oxford Nanopore Technologies plc:

Oxford Nanopore Technologies' goal is to bring the widest benefits to society through enabling the analysis of anything, by anyone, anywhere. The company has developed a new generation of nanopore-based sensing technology that is currently used for real-time, high-performance, accessible, and scalable analysis of DNA and RNA. The technology is used in more than 120 countries, to understand the biology of humans, plants, animals, bacteria, viruses and environments as well as to understand diseases such as cancer. Oxford Nanopore's technology also has the potential to provide broad, high impact, rapid insights in a number of areas including healthcare, food and agriculture.

For more information please visit: www.nanoporetech.com

Forward-looking statements

This announcement contains certain forward-looking statements. For example, statements regarding expected revenue growth and profit margins are forward-looking statements. Phrases such as "aim", "plan", "expect", "intend", "anticipate", "believe", "estimate", "target", and similar expressions of a future or forward-looking nature should also be considered forward-looking statements. Forward-looking statements address our expected future business and financial performance and financial condition, and by definition address matters that are, to different degrees, uncertain. Our results could be affected by macroeconomic conditions, the COVID-19 pandemic, delays in our receipt of components or our delivery of products to our customers, suspensions of large projects and/or acceleration of large products or accelerated adoption of pathogen surveillance. These or other uncertainties may cause our actual future results to be materially different than those expressed in our forward-looking statements.

This announcement contains inside information for the purposes of the UK version of the Market Abuse Regulation (EU no. 596/2014), which forms part of English law by virtue of the European Union (Withdrawal) Act 2018. The person responsible for arranging the release of this announcement on behalf of the Company is Hannah Coote, Company Secretary of Oxford Nanopore Technologies plc.

Chair's statement

Overview

It is a great privilege to share my thoughts for the first time as Chair of Oxford Nanopore, having joined the Board in August 2022. It is an exciting time to have joined the company; Oxford Nanopore has already achieved a huge amount and yet it is still in the foothills of its growth journey.

We were delighted to see the Telomere-to-Telomere Consortium finish and publish the first truly complete, more than 3 billion base pair sequence of the human genome during the year. Oxford Nanopore's high accuracy and ultra-long sequencing capabilities finally removed technological barriers to allow the final 8% of the genome to be revealed.

2022 has been a year of exciting and record-breaking science for customers using our technology, from Stanford University, who developed a workflow for ultra-rapid nanopore sequencing that resulted in actionable characterisation of genetic disease in under eight hours, right through to the University of Washington and Seattle Children's Hospital, who developed an ultra-rapid analysis using whole genome sequencing to target a single gene to characterise inheritance of specific familial variants in under three hours from birth. We are incredibly proud that our technology can be used in such varied and inspiring situations.

2022 also marked our first full year as a public company and I would like to congratulate Gordon and the rest of the executive team's success leading the Group through its first full year following the IPO. I would also like to personally congratulate Gordon for being named as a Commander of the Most Excellent Order of the British Empire (CBE) in the 2023 New Year honours. This achievement reflects Gordon's enormous contribution to the technology sector during his career.

On behalf of both the Board and our shareholders, I would also like to express our thanks and gratitude to my predecessor, Peter Allen, for his support, guidance and long service to Oxford Nanopore.

A year of strong innovation

Continuous innovation is at the heart of our growth strategy and 2022 was another strong year for Oxford Nanopore. During the year, our research and development (R&D) team successfully modified the nanopore, chemistry and run conditions to achieve high-accuracy, high-performance and high-yield nanopore data. The latest update included a new V14 chemistry kit which can be used alongside flow cells that include a new nanopore R10.4.1. These upgrades allowed our users to achieve Q20+ (>99%) simplex raw-read accuracy with high sequencing yield. In addition to simplex reads, our new Kit 14 chemistry and R10.4.1 nanopore combination can also produce duplex reads to further increase accuracy to Q30 (>99.9%).

During 2022, and in line with our vision to enable the analysis of anything, by anyone, anywhere, we also expanded our device range with the launch of the highly accessible PromethION 2 Solo (P2 Solo) device. The P2 Solo is designed to make high-output sequencing more accessible to users at a low-cost entry point, enabling cost-effective high output sequencing with relatively low sample runs. The P2 allows customers to conduct rapid, competitively priced sequencing of whole human genomes, transcriptomes, single cells, plants, animals or highly multiplexed targeted samples or pathogens.

Financial performance

In 2022, Group total revenues were £198.6m, which included £146.8m of life science research tools (LSRT) revenue and £51.8m of Covid testing revenue from the conclusion of the DHSC contract - no future revenues are expected from this segment.

Our financial performance was in line with our LSRT revenue guidance. The total LSRT revenues represented 16% annual growth on a reported basis and 10% on a constant currency basis. On an underlying basis, excluding the EGP and COVID-19 sequencing, growth was approximately 36% on a reported basis and approximately 30% on a constant currency basis. This strong performance against a challenging economic environment reflects the increased demand for our technology globally across many areas of scientific research.

Revenue from COVID-19 sequencing grew by around £8.6 million in 2022 to £26.1 million (2021: £17.5 million), but we expect this to decline in 2023.

We were delighted to see continued growth across different geographies, and in particular in the Americas. Our 2022 LSRT gross margin increased to 56.3% compared to 53.8% gross margin the previous year. We are pleased with the continued progress in this area and look forward to continuing this progress into 2023.

Corporate governance

As a Board and as a company, we are committed to strong corporate governance. Following my appointment as independent Chair and Wendy Becker's appointment as Senior Independent Director during the year, we ended 2022 in full compliance with the UK Corporate Governance Code.

Following my appointment, I was pleased to speak with a number of our largest institutional shareholders, who remain supportive of Oxford Nanopore and excited about our future possibilities. I look forward to the continued engagement in 2023 and beyond.

We are committed to diversity, in its widest sense, both at Board level and throughout the company. During 2022, we increased our gender diversity target for the Board to 40% within three years of our IPO. We expect to further strengthen our Board in 2023 with the addition of at least one new Non-Executive Director.

Our impact

Our vision is to bring the widest benefits to society through enabling the analysis of anything, by anyone, anywhere. This has always been at the core of Oxford Nanopore and in 2022, we continued to develop a broader set of sustainability initiatives and also worked on collating data so that we are more able to measure our impact.

We have updated our method to more accurately identify publications and by using this method, we have been able to identify over 8,200 publications. The increase in publications of approximately 3,000 publications during the year illustrates the broad range of use for our technology, ranging from human genetics, rare diseases, cancer, food safety and environmental conservation.

This year, we are introducing a new sustainability strategy: product, planet people. This is part of our commitment to apply a sustainability-embedded mindset throughout the business. We are also publishing our first report on our findings against the Task Force on Climate-related Financial Disclosures (TCFD) framework. This includes an overview of our carbon risks and opportunity. We look forward to publishing our first detailed Sustainability Report shortly after the Annual Report.

Outlook for 2023

Oxford Nanopore is only in the early stages of its journey and is well placed for continued growth in 2023 and beyond. We enter the year in a strong financial position and with a continued deep commitment to deliver on our vision to enable the analysis of anything, by anyone, anywhere.

I would like to thank our shareholders for their continued support and our employees for their continued commitment and dedication and we look forward to another exciting year ahead and to updating shareholders on our strategic and operational progress in 2023.

Duncan Tatton-Brown
Chair

CEO's Statement

It has been a great privilege to lead Oxford Nanopore through our first full year as a listed business. Our technology platform, with its unique combination of features, and commercial model continue to deliver strong results against a challenging macroeconomic backdrop and global supply chain constraints. We have continued to innovate, delivering new technologies and products to the market and expanded our customer base to 8,283 active accounts; a net increase of 1,938 customers over the period.

The thriving community of scientists using nanopore-based sequencing published approximately 3,000 peer-reviewed publications in 2022, bringing the total, since Oxford Nanopore technology was first available, to more than 8,200. Oxford Nanopore's technology is used to study a huge diversity of biology, including human genetics, cancer, plants, animals, bacteria, viruses and fungi. On the foundations of this scientific research, scientific communities are beginning to drive translational programmes, developing methods that use nanopore-based sequencing to generate insights that answer real-world problems in health, agriculture, food and environments. This is reflected in recent collaboration announcements for clinical and applied markets, and our expanding teams working to establish future partnerships. Enabling our broad user base to conduct breakthrough science that creates foundations for this long-term goal is our everyday business, and their incredible achievements inspire all of us at Oxford Nanopore.

Our users, who are in more than 120 countries, continue to use our technology in traditional laboratory environments and in the field, including in jungles, deserts, in the Antarctic and on the International Space Station. Sequencing samples at or near the source of origin is unlocking new uses of sequencing - whether in public health, food safety, manufacturing quality control, or as a tool in laboratory developed tests in healthcare settings.

Robust performance

The Group delivered revenue of £146.8 million in our LSRT business, up 16% on a reported basis and 10% on a constant currency basis. This includes £26.1 million of COVID-19 sequencing revenue (2021: £17.5 million) and £13.2 million of revenue from the EGP (2021: £30.6 million). In the period from FY 2019 to FY 2022, LSRT revenue grew over 41% on a compound annual growth rate.

On an underlying basis, excluding foreign exchange and revenues from the EGP and COVID-19 sequencing we delivered 30% growth. The strong results we continue to deliver, in a challenging market are a testament to our highly differentiated sequencing technology platform and the strength and dedication of our teams across the globe.

The continued increase in the user base and utilisation of our technology is reflected in the growth of both consumables and starter pack revenue during the period, which grew by 12% and 23% respectively. From a customer group perspective, the S2 and S3 groups were core drivers of LSRT revenue growth. S3 revenue, excluding EGP, increased by 33% to £33.5 million and revenue from the S2 customer group increased by 36% to £52.3 million. Total revenue in the period increased to £198.6 million, reflecting growth in LSRT revenue and non-recurring Covid testing revenue of £51.8 million following the conclusion of our contract with the Department of Health and Social Care (DHSC) in March 2022.

LSRT gross margin increased by 250 basis points to 56.3%, predominantly driven by automation, improvements in manufacturing techniques and the recycling of electronic components in our hardware and consumables.

We saw strong growth across all regions in 2022, excluding the UAE. Revenues continue to be driven by our two largest regions, with Americas revenue up 45% (32% on a constant currency basis) and Europe, up 30% (29% on a constant currency basis). This strong growth reflects our increased commercial capacity in these regions. There was 76% growth in China (66% on a constant currency basis) and Asia Pacific and Japan revenue increased by 28% (26% on a constant currency basis). UAE revenue declined by 52%, (54% on a constant currency basis), reflecting a £17.4 million decrease in revenue from the EGP, in part due to accelerated orders of flow cells in the fourth quarter of 2021, reducing demand for flow cells in the first quarter of 2022.

Looking beyond financial performance, we achieved much more in 2022. We executed key product launches and platform upgrades, including the early access release of the PromethION 2 Solo, which we believe to be the world's most affordable and accessible high-output sequencer. We expanded our manufacturing capacity and continued to optimise production processes to drive margin improvements. In addition, we continued to invest in our most important asset, our people, and achieved the target we set out at IPO of doubling our commercial teams within 18 months. Building our international commercial and support teams has enabled us to drive adoption across the global scientific community.

A year of disruptive innovation, enabling breakthrough science

2022 was a pivotal year for Oxford Nanopore, culminating in the announcement of the rollout of our highest-accuracy, highest-output chemistry to the broad user community. This brings together the disruptive properties of nanopore sequencing, that our scientific community has used to break new boundaries, with high performance and cost effectiveness for comprehensive sequencing of whole genomes or genomic regions of interest.

The scientific journal Nature Methods pronounced the ability to sequence long fragments of DNA/RNA as 2022 Method of the Year: "To large-scale projects and individual labs, long-read sequencing has delivered new vistas and long wish lists for this technology's future."

In 2022 we continued to drive performance improvement through new product and platform releases, including the early access launch of Q20+ chemistry, consisting of Kit 14 sample preparation kits and flow cells containing the new R10.4.1 nanopore chemistry. Q20+ chemistry combines very high single-molecule accuracy with the ability to reach all parts of the genome and characterise all types of genetic variation, through the ability to sequence any length fragments of native DNA/RNA. The platform now delivers Simplex accuracy (when a single strand is read by the nanopore) of over 99%. Simplex accuracy delivers market leading SNP, SV and methylation performance. This mode is extensively used by all large studies of plants, animals and humans.

For the most challenging of applications, such as 'Telomere to Telomere' assembly of genomes or rare variant detection, Duplex accuracy delivers over 99.9% single molecule accuracy. Duplex data is generated when both template and complement strands are sequenced and combined. Duplex refers to the analysis of combined measured signals from double-stranded DNA to produce a base-pair sequence read.

With the platform as it stands, our users are rapidly moving from technology evaluation to technology deployment as we deliver complete genomes, discover novel variants that are highly linked to challenging problems such as cancer and rare disease. Our technology now fully delivers on accuracy, variant detection, methylation detection, on any read length; all of this while retaining our unique features of scalability, accessibility and real-time sequencing.

In the first six months of the year, we released Short Fragment Mode (SFM) to enable nanopore-based sequencing of fragments as short as 20 bases. This latest release enables users to generate highly accurate information-rich data, rapidly, in real time, on any molecule from 20 bases to millions of bases long; a true technology differentiator in a market currently divided into long or short read platforms. SFM enables customers to deploy nanopore-based sequencing in emerging exciting areas such as liquid biopsy research for early detection of cancer.

In line with our goal to make DNA sequencing accessible to anyone, anywhere, we expanded our device range with the early access release of the palm-sized PromethION 2 Solo (P2 Solo) device. The P2 Solo is designed to make high-output sequencing more accessible to users with lower sample processing requirements and allows customers to conduct rapid, whole human genome sequencing for under \$950. The launch of the P2 Solo was well received and we started shipping devices globally at the end of 2022. In addition to the P2 Solo we have also developed the PromethION 2 (P2), a self-contained benchtop device with fully-integrated compute and a screen for generating, analysing and visualising nanopore-based sequencing data. The P2 is available for pre-order and is expected to be available to a small group of developers in the first half of 2023 and is expected to progress to early access launch by the end of 2023. The P2 Solo and P2 devices are vital to enabling high output sequencing beyond our large S3 customers by broadening the growing user base of our PromethION platform.

During the period, we further enhanced our ability to deliver richer data by releasing Remora, a high-performance tool for methylation analysis, into our operating software, MinkNOW. This now means that all Oxford Nanopore users have easy access to precise whole genome methylation detection from PCR-free nanopore-based sequencing by using Remora. Nanopore-based sequencing is now the most comprehensive technology for characterising methylation, which has an important role in cancer and many other areas of genomics.

Oxford Nanopore has the only technology that reads native DNA and RNA in any fragment length. This unlocks significant biological insights that are simply not accessible with traditional sequencing technologies, including epigenetic characteristics (i.e. the 'methylome') as well as larger scale structural and copy number variations which are the subject of increasing scientific interest. Recent publications have highlighted that as much as 34% of all disease-causing variation is made up of variants that are larger than single base pair substitutions. This 'richness' of nanopore-based sequencing data sets us apart from every other player in the market. Oxford Nanopore is the first and currently only company that provides native DNA sequencing. We place agile innovation at the centre of our strategy to retain our leadership position in nanopore sequencing. R&D will continue to be the highest priority in the company and the principal driver of growth over the long term.

Life science research: the foundation for future applied uses

Human genomics and genetics: The mission to sequence the whole human genome started more than 30 years ago and we were delighted to see the Telomere-to-Telomere Consortium led by Karen Miga at UCSC finish and publish the first truly complete genome. Oxford Nanopore's high accuracy and ability to sequence ultra-long DNA fragments finally removed technological barriers and enabled the completion of the human genome.

We continue to see multiple publications shedding light on genetic aberrations that are not possible to read using short read methods.

Cancer: Globally, we are excited to see programmes emerging that seek to bring whole cancer genome insights leveraging nanopore native DNA sequencing closer to clinical care. Genomics England are pioneering new methods to deliver comprehensive whole cancer genome data and related insights, with a goal to introduce these discoveries into the NHS that have the potential to improve patient cancer diagnosis and care. We have been proud to collaborate on this work, and in 2022 we were delighted to embark on the next phase of this programme with Genomics England. However, the ability of sequencing in cancer is not limited to whole genomes. The ability of nanopore-based sequencing to provide native methylation has continued to develop with multiple publications in 2022 continuing to provide insights in our understanding of cancer.

Microbial organisms /pathogens: Researchers are using nanopore sequencing to overcome the challenges associated with traditional short-read sequencing technologies to fully characterise microbial genomes – bacteria, fungi, viruses, as well as small DNA molecules such as plasmids. This can shed new light on microbial evolution, pathogenicity, and antimicrobial resistance. Nanopore sequencing is also proving to be integral in many biopharma/industrial quality screening processes, such as characterising the genome integrity and purity of plasmid constructs and Adeno-associated virus (AAV) vectors that are in development for gene therapy.

In a post-pandemic COVID world the international public health community continues to deploy nanopore-based sequencing for the surveillance of human and animal outbreaks, from avian flu to tuberculosis (TB), in addition to ongoing tracking of coronaviruses, providing near real-time reporting of evolution and transmission of pathogens. This real-time reporting is critical to help us better understand and combat known or yet-to-emerge unknown pathogens, and provide the necessary context for effective preparation for and responses to future pandemics. Globally, scientific communities seek to blend these insights with public healthcare system approaches to managing infectious disease.

The journey from the bench to the bedside

In 2022, we saw strong growth in foundational research in human genetics, cancer research and monitoring infectious disease, alongside 'translational' method development to take research discoveries from the bench into distributed clinical or applied testing markets. Over the longer term, our thesis is that the very fast, scalable, information-rich, real-time nanopore-based sequencing will address unmet needs in health as well as industrial sectors such as agriculture, food and environmental applications. We have established cross-functional teams and processes to deliver our 'Q line' platform that will deliver nanopore sequencing for regulated applied markets such as clinical labs and biopharma QC/QA labs.

Human genomics and genetics: The increasing deployment of our technology in human genomics research programmes highlights the scientific community's need for these increasingly comprehensive analyses along with speed and accessibility. For example, a whole human genome was sequenced in approximately two hours by teams at Stanford, who were also able to resolve more cases in their rare disease study.

A team from University of Washington and Seattle Children's Hospital also used Oxford Nanopore sequencing technology to perform an ultra-rapid analysis using whole genome sequencing and prior information about a genetic disease to target a single gene, showing the ability to characterise inheritance of specific familial variants in under three hours from birth.

Cancer research: The coupling of methylation with the new short fragment mode (SFM) enabled delivery of a breakthrough publication by Stanford University, showing that Oxford Nanopore technology is able to analyse cell-free DNA from blood samples to track the methylation load of cancer samples through diagnosis, treatment, remission, and recurrence – paving the way for a future blood-based cancer screening method to support doctors and patients managing cancer. Our technology has also proven to be a critical tool for users interested in developing methods for rapidly characterising blood cancers. For example, research teams at Walter and Eliza Hall Institute of Medical Research and also the University of Florence have been able to further understand chemotherapy resistance in chronic lymphocytic leukemia and acute myeloid leukemia respectively, and teams at Université de Montréal in Canada are aiming to generate comprehensive and precise transcriptomic profiles for diagnosis, classification, and treatment selection of acute lymphoblastic leukemia (ALL) for use in precision medicine, this ground-breaking study highlighted a method to characterise ALL in just five minutes.

Microbial organisms /pathogens: The same properties of nanopore-based sequencing that enable distributed surveillance – real-time sequencing with accessible, easy-to-use devices – has supported the development of methods for rapid infectious disease management in critical care. At Guys and St Thomas’ Hospital, a pilot respiratory metagenomics programme uses Oxford Nanopore’s products in a critical care setting to detect all bacterial/fungal pathogens and their resistance profiles within hours versus several days with traditional methods, from a single analysis. In addition, Oxford Nanopore successfully completed phase one of a drug-resistant tuberculosis research study as part of Seq&Treat, work funded by Unitaaid and led by FIND, the global alliance for diagnostics. This involved the development of a rapid end-to-end sequencing workflow to identify over 100 mutations associated with drug resistance across the TB genome, directly from clinical samples as part of a research study.

Future applied market opportunity; to deliver real-world benefits and impact

In 2021, we established Oxford Nanopore Diagnostics (OND) to drive the process of translating nanopore sequencing from research towards ‘applied’ clinical uses of the technology. In 2022, our collaborative programmes have started to translate the benefits of nanopore sequencing in human genetics to deliver real-world benefits and impact. Our partners Omixon and GenDx announced assays that can perform high-resolution Human Leukocyte Antigen (HLA) typing within hours, to enable transplant patients to be rapidly matched with donors. We also established a collaboration with Asuragen, a Bio-Techne company, to develop an expanded carrier screening assay, using nanopore sequencing to enable the family planning process. As Oxford Nanopore continues to work with large human genomics programmes that are the basis for future personalised medicine, we are proud to be building collaborations that have the potential to give rise to broad types of future applications in human genetics, including the important resolution of previously uncharacterised rare genetic diseases.

Manufacturing innovation

Our commitment to innovation extends to our in-house developed manufacturing processes. We continued to invest in scaling up the manufacturing operations and the supporting supply chain during 2022, to ensure that production volumes can be scaled rapidly when required. In the first half of 2022, we separated our technology transfer operation from production, for greater resilience and continued to invest in manufacturing innovation to increase the efficiency and effectiveness of production processes. During the period, we made good progress automating parts of flow cell manufacturing, to increase efficiency and scale. To further optimise and scale flow cell manufacturing, we have invested in multi-function automation systems for assembly of MinION and PromethION Flow Cells. These new systems will reduce footprint, simplify processes and double throughput. These systems have been designed, prototyped and developed through 2022 and are now being prepared for introduction into the flow cell manufacturing process, starting with MinION Flow Cells in the first half of 2023 and PromethION Flow Cells in the second half of 2023.

Like many businesses, we experienced constraints on our supply chain in 2022, with increasing costs of product supplies, particularly generic electronic components. We successfully navigated unprecedented global supply chain disruption to deliver the devices our customers ordered, reflecting the strength of both our relationships with suppliers and our core internal capabilities. Our operations teams were able to navigate supply shortages by purchasing and adapting generic components to work in our products. This effort involved a degree of redesigning every product, recertifying and manufacturing redesigned products, such that alternate electronics could be used when the original components were unavailable. We also benefitted from our decision to enter 2022 with higher levels of inventory than normal, learning from Brexit and prior disruptive events.

During the period, we expanded our facilities in Harwell, Oxfordshire, adding 22,600 square feet of manufacturing space (the Genesis building), to support scaling of biologics manufacturing and production of our sample preparation kits at scale. Further to this, we secured a new site in South Oxfordshire, which we will develop with a focus on warehousing, logistics and technical laboratories to build the organisational capability we require to continue to supply product volumes to sustain rapid market growth globally.

Maximising our sustainable impact

From day one, we have sought to make biological information more accessible to those who need it and we are delighted to see how nanopore users are bringing our tools to bear on the challenges facing the world. In 2022, we continued to develop a broader set of sustainability initiatives to measure our impact.

This year we are introducing a new sustainability strategy – product, planet, people – that encapsulates the consistency of our wider business strategy and sustainability outcomes. Climate Change, food security and human health are defining issues of our time that Oxford Nanopore can positively impact. In particular, the window for climate action is closing rapidly. We are adapting to, and mitigating against, climate change risks and impacts, through commitments to improved efficiencies throughout Oxford Nanopore’s operations, including in our products, facilities and value chain. Our products are already designed to minimise packaging and waste, to dramatically reduce dependencies on cold-chain shipping and to include recycling of key components into our business processes.

We look forward to publishing our first detailed Sustainability Report in the first half of the year.

Our People

Our people are vital to the success of our business; one of the hallmarks of Oxford Nanopore is the multi-disciplinary nature of our employee base driving our innovation. We have continued to grow rapidly in 2022 as we expand our commercial presence, scale our production operations and accelerate the development of our products.

To support our rapid growth, we made significant investments in our global organisation in 2022. Total headcount reached 1,009 (FTE) at the end of the year, up 26% from the prior year. We made key hires across geographies and functional areas including senior commercial leadership in Europe and the US and marketing leadership globally. In February 2023, our commercial team headcount reached 301 achieving the goal we set out at IPO of doubling the commercial team.

Alongside commercial expansion, we have continued to grow our operational capabilities with the addition of experienced leadership in our biologics production and supply chain. In R&D, we have made significant investments in the expansion of our machine learning and artificial intelligence (AI) teams, whilst enhancing our software teams and recruiting leading research and development scientists.

Improved onboarding and talent development through initiatives such as Butcher Bailey Leadership training, mentoring programmes, six-sigma programmes in production and operations, and challenger sales training for our commercial teams will ensure we are building a solid foundation for the future.

Outlook

We are seeing increasing demand around the world for our unique platform and are hugely proud of the new ground that our customers are breaking with the aid of our technology, in areas spanning population genomics, viral surveillance, neurological disorders, cancer, biopharmaceutical production and environmental conservation. This breadth underlines the scale of the opportunity we see ahead, as we seek to bring the widest benefits to society through the analysis of anything, by anyone, anywhere.

The strength of our balance sheet combined with significant investment in platform development, bespoke electronics, IP, infrastructure and our greatest resource, our people, puts us in a strong position to achieve this goal. We see significant opportunities ahead, reflected both in the progress we have made

in the current research market and in the preparations that we are making to address many potential uses for our technology in applied markets, from infectious disease to agricultural optimisation.

We have established our platforms globally and our long-term strategy is to enable our customers to develop novel applications, analogous to the 'apps' model for mobile phones. Enabling our customers to develop on the platform will propel us toward a world of real-time, distributed access to DNA/RNA information. As we begin to understand and measure the biological world around us and use that information to make decisions with positive impacts from health to the environment, we are on the cusp of creating the 'Internet of Living Things'.

Dr Gordon Sanghera
Chief Executive Officer

Financial review

2022 performance

I am proud to report our first full year as a listed company has seen our strategy and differentiated platform continue to deliver strong results. To provide a better picture of performance since our IPO we have also compared FY22 to FY20 below.

The Group delivered revenue of £146.8 million in our LSRT business, up 16% on a reported basis and 10% on a constant currency basis. This includes £26.1 million of COVID-19 sequencing revenue (2021: £17.5 million) and £13.2 million of revenue from the EGP (2021: £30.6 million).

Underlying LSRT revenue growth, excluding the EGP and COVID-19 sequencing, was approximately 36% on a reported basis and approximately 30% on a constant currency basis. This performance was principally driven by the expansion of our global customer base from 6,345 to 8,283 active accounts; an increase of over 30% during the year. Compared to FY20 total revenue was up 74.4% and LSRT revenue was up 124.1%.

Group gross profit increased to £123.8 million, up 69.1% in the period. This includes LSRT gross profit of £82.7 million (FY21: £68.3 million), with the remainder (£41.1 million) coming from the proceeds, less associated costs, arising from the conclusion of the DHSC contract, which was terminated in 2021. LSRT gross margin increased by 250 bps during the period and by 1,340 bps compared to FY20. Group operating loss decreased to £98.5 million (FY21: £164.5 million), reflecting the growth in revenue and gross profit.

Group revenue increased to £198.6 million (FY21: £133.7 million), reflecting a £19.8 million increase in LSRT revenue and non-recurring revenue of £51.8 million following the conclusion of the Group's COVID-19 testing contract with the Department of Health and Social Care (DHSC), as previously announced.

These results, which were achieved against a challenging macro-economic backdrop and global supply chain pressures, reflect the growing demand for our technology, our unique commercial model and the strength of our teams.

During 2022, we continued to invest in research and development to drive both continuous improvement in the performance and usability of our technology, and to deliver new products and technologies that address a broader range of applications and users' needs. We also continued to expand our global sales and marketing team during 2022. Commercial and marketing headcount grew to 291 employees at 31 December, up by 51% during the year.

Despite continuing investment in innovation and sales and marketing, we finished the year with cash, cash equivalents and other liquid investments of £558.0 million (2021: £618.2 million) resulting in a reduction in cash of £60.2 million.

Results at a glance

Year ended 31 December:	2022 £m	2021 £m	% change FY22 vs. FY21	Two-year basis	
				2020 £m	% change FY22 vs. FY20
Total revenue	198.6	133.7	+48.5%	113.9	+74.4%
- LSRT revenue	146.8	127.0	+15.6%	65.5	+124.1%
- Covid testing revenue	51.8	6.7	+673.1%	48.3	+7.2%
Gross profit	123.8	73.2	+69.1%	46.9	+164.0%
Gross margin (%)	62.3%	54.8%	+750 bps	41.2%	+2,110 bps
LSRT gross margin (%)	56.3%	53.8%	+250 bps	42.9%	+1,340 bps
Operating loss	(98.5)	(164.5)	+40.1%	(73.1)	(34.7)%
Adjusted EBITDA	(78.6)	(57.7)	(36.2)%	(55.2)	(42.4)%
Loss for the year	(91.0)	(167.6)	+45.7%	(61.2)	(48.7)%
Cash, cash equivalents and other liquid investments	558.0	618.2	(9.7)%	80.9	+589.8%
Net assets at period end	693.6	704.0	(1.5)%	185.9	+273.1%

Alternative performance measure

The Group has identified Alternative Performance Measures (“APMs”) that it believes provide additional useful information on the performance of the Group. These APMs are not defined within International Financial Reporting Standards (“IFRS”) and are not considered to be a substitute for, or superior to, IFRS measures. These APMs may not be necessarily comparable to similarly titled measures used by other companies. All adjusted measures are reconciled to the most directly comparable measure prepared in accordance with IFRS in note 22.

Directors and management use these APMs alongside IFRS measures when budgeting and planning, and when reviewing business performance.

Revenue by customer group

At a customer group level, revenue growth was driven by S2 and S3 customers, excluding EGP, as well as strong growth through our distributor business in China, boosting indirect sales. We were particularly pleased to see the strong growth in S1 customers in the second half of 2022, as a result of our commercial partnership with Avantor, which helps expand our reach and improve accessibility for entry level products such as MinION. We continue to focus on driving revenue growth through both rapid expansion and diversification of the customer base, as well as increasing revenue per customer account.

	2022 (£m)	2021 (£m)	% change
S1	29.8	23.1	+29%
S2	52.3	38.4	+36%
S3	46.7	55.7	(16)%
- EGP	13.2	30.6	(57)%
- S3 excluding EGP	33.5	25.1	+33%
Indirect	18.1	9.7	+86%
Total LSRT revenue	146.8	127.0	+16%
Covid testing revenue	51.8	6.7	+673%
Total revenue	198.6	133.7	+49%

S3 revenue grew by 33%, excluding the EGP, in 2022. Total S3 revenue declined by 16% to £46.7 million; strong underlying growth was offset by a £17.4 million decline in revenue from the EGP during the period. This, in part, was due to phasing of flow cell delivery in the fourth quarter of 2021, previously expected in the first quarter of 2022. The number of active customers in this group (excluding EGP) increased from 55 to 72 during the period with average revenue per customer of approximately \$581,000. This group consists of a number of Population Genomics studies, particularly focusing on rare diseases, as well as COVID-19, and other Public Health Labs, focusing on COVID-19 and other genomic surveillance. Whilst these two groups represent the majority of the S3 revenue due to certain large projects, the majority of customers in the S3 group are focused on clinical research, cancer and human genomics as well as certain microbial, plant and animal genetic projects. It is these customers that we believe are in the early stages of developing new disruptive-use cases for our technology.

S2 revenue grew by 36% during the period to £52.3 million. Active customers in this group grew by 26% to 989 in 2022, with an average annual revenue of approximately \$66,000 per customer. S2 customers are key to our expansion over the medium term, as we provide localised high-quality sequencing capabilities at competitive prices. These customers are able to manage their own projects rather than continuing to be dependent on centralised sequencing services, where they have to wait for their samples to be processed. They engage in a wide range of genomics applications from infectious disease work to plant and animal projects, with human disease and cancer genetic variation research at the heart. The increase in this group has come from the need to find the genetic explanation for unexplained disease and to gain a better understanding of infectious diseases, whether in surveillance, its impact on economies, or rapid identification of the causative agent for informed decision making.

S1 revenue grew by 29% during the period to £29.8 million, reflecting continued demand for our entry-level and portable sequencing devices. Active customers in this group grew by 31% to 7,210 in 2022, with an average annual revenue of approximately \$5,200 per customer. Growth across the S1 customer base came from two areas, expansion of end users within organisations and new accounts in new organisations, with Mk1B being the most popular device. To date we have had less direct contact with this customer group with most conversations taking place at conferences, in forums and in our Nanopore Community. In 2021 we announced we were beginning a collaboration with Avantor to provide direct contact with these smaller customers who are embracing the ability to sequence when they need to and access new genomic information. Avantor increased its contribution to the growth of this group in the second half of 2022. Avantor is performing equally in the UK & Europe and Americas regions, as well as maintaining the balance of new business (starter pack revenue) to ongoing consumable business. The direct contact has also seen the reactivation of devices already in customers' hands.

Geographical trends

The Group aims to make its technology available to a broad range of scientific users, and currently supports users in more than 120 countries.

LSRT revenue by region (£m)

	2022 (£m)	2021 (£m)	% change actual	% change CC
Americas	48.3	33.3	+45%	+32%
Europe	43.3	33.4	+30%	+29%
China	19.3	11.0	+76%	+66%
UAE	15.4	31.7	(52)%	(54)%
Asia Pacific & Japan	14.3	11.1	+28%	+26%
Emerging markets	6.2	6.4	(2)%	(12)%
Total LSRT Revenue	146.8	127.0	+16%	+10%

At a regional level, revenues were predominantly driven by growth in our two largest regions, Europe and the Americas, as well as strong growth in China.

Growth in Americas reflects increased investment in commercial resources in the region. Revenue growth in this region is principally driven by research in human disease and genomic surveillance in USA and Canada, but also reflects the expansion into South America, through an emerging network of distributors.

Revenue in Europe increased by 30%, reflecting the increased commercial headcount across the region.

Revenue across China grew by 76%. Increased demand in this region is driven by strong performance of MinION and GridION for infectious disease.

Revenue grew by 28% in Asia Pacific and Japan. In this region, we have seen customers taking advantage of our technology to gain a more complete picture of the whole genome to expand the knowledge about the influence of genetic variation in human disease. During the period, we further strengthened operations in Australia and Singapore and post period end, we announced a new logistics hub in Singapore, which will be our distribution hub for Asia Pacific.

UAE revenue declined by 52%, impacted by a decline in EGP revenue during the period.

Following the global sanctions against Russia, the Emerging markets fell slightly in the year as the growth in other countries was more than offset by the cessation of trade in Russia.

In some territories the Group works with distributors to achieve or enhance its own commercial presence. The Group currently works with:

- a network of partners in China;
- a strong dealer network in Japan;
- distributors in South Korea, India, Turkey, the United Arab Emirates and Qatar; and
- specialist logistics brokers who can work directly with the Group's customers in harder-to-ship-to areas, including Mexico, Brazil, Chile, Colombia, Costa Rica, Ecuador, El Salvador, Nicaragua, Panama, Uruguay and parts of Africa.

Growth in margins

Year ended 31 December	2022	2021	Change
Gross Margin (%)	62.3%	54.8%	+750 bps
LSRT Gross margin (%)	56.3%	53.8%	+250 bps

2022 was an unprecedented year for pressure on supply chain reliability, quality and lead times. Our technical teams worked closely with our core suppliers, to ensure that product performance and availability were not affected by these conditions. During the year, we continued to focus on manufacturing innovation, improved production techniques and automation, all designed to increase efficiency and gross margins.

Despite significant supply chain disruptions during 2022 we delivered a 250 bps increase to LSRT gross margin, reflecting improvements in manufacturing techniques, automation, processes and designs as well as changes in product mix and recycling of costly components.

We remain committed to our medium-term target of continual margin improvement across all products and will continue to invest in innovation, to deliver this goal.

Impact of headcount

Average headcount (FTEs)	2022	2021	Change (%)
R&D	380	291	+30%
Production	149	134	+11%
SG&A	393	280	+40%
Total	922	705	+31%

In 2022, the average number of employees across all functions increased by 31%. The Group invested in bringing onboard new Research and development staff to support the research phase into early product release across our disruptive platform. Our Research and development teams work on fundamental research for novel sensing applications, membrane chemistry, sequencing chemistry, nanopores, enzymes, algorithms, software electronics and arrays to deliver future platforms and improvement on current products. As a result, high-calibre scientists and researchers have been attracted to join the Group with the goal to realise Oxford Nanopore's vision.

The Group's manufacturing capabilities continued to expand to cater for increased demand from a growing client base. Production staff increased by 11% in the year, covering all manufacturing stages and processes.

The largest increase in the Group's average headcount took place in the selling, general and administration functions including legal functions and corporate executives, with an increase of 40%. The significant expansion of the commercial teams in key geographic regions supports the Group's business growth objectives globally. In addition, the investment in in-field teams and customer support teams was necessary to maintain and increase customer loyalty and customer retention.

Research and development expenses

The Group's research and development expenditure is recognised as an expense in the period as it is incurred, except for development costs that meet the criteria for capitalisation as set out in IAS 38 (intangible assets). Capitalised development costs principally comprise qualifying costs incurred in developing the Group's core technology platform and sequencing kits.

	2022 (£m)	2021 (£m)
Research and development expenses	64.8	76.0
Adjusting items:		
Employer's social security taxes on pre-IPO share awards	9.9	(17.7)
Adjusted R&D expenses	74.7	58.3
Capitalised development costs	19.2	9.3
Total R&D expenses and capitalised development costs	93.9	67.6

Adjusted research and development expenses increased by £16.4 million to £74.7 million in FY22 (FY21: £58.3 million to £74.7 million). This increase was principally due to a 31% increase in headcount (FY21: 24% increase) leading to a £7.1 million increase in payroll costs (FY21: £2.4 million).

Capitalised development costs increased by £9.9 million to £19.2 million in FY22 (FY21: decreased by £1.5 million to £9.3 million). This included £10.4m of staff costs (FY21: £5.5 million) and £8.8 million of third-party costs (FY21: £3.8 million), across a number of projects that occurred during the year.

Overall investment in research and development was £93.9 million (FY21: 67.6 million); an increase of £26.3 million (FY21: £8.3 million) over the prior year.

Selling, general and administration expenses

The Group's adjusted selling, general and administrative expenses in FY22 increased by £18.1 million to £116.0 million in FY22 (FY21: increased by £26.5 million to £97.9 million).

	2022 (£m)	2021 (£m)
Selling, general and administration expenses	157.4	161.8
Adjusting items:		
Share-based payment expense on Founder Long Term Incentive Plan (LTIP)	(53.2)	(37.6)
Employer's social security taxes on Founder LTIP and pre-IPO share awards	11.7	(21.5)
IPO costs expensed in Income Statement	-	(4.8)
Adjusted selling, general and administration expenses	116.0	97.9

The main changes were:

- a 48% increase in average headcount of staff within the Group's sales, marketing and distribution functions (FY21: 22% increase), leading to a £11.7 million increase in payroll costs (FY21: £1.8 million increase). This is in line with our plan to expand our global sales team
- a 30% increase in average headcount of corporate staff within the Group's Human Resources (HR), finance, central administration, legal, applied functions and certain corporate executives to support business growth (FY21: 114% increase), contributing to a £7.9 million increase in payroll costs (FY21: £8.3 million)
- an increase in depreciation and amortisation of £2.7 million (FY21: increase of £5.6 million); partially offset by a decrease in share-based payments (non-Founder LTIP) of £6.9 million (FY21: increase of £12.5 million)

Balance sheet

Our balance sheet remains strong, with £558.0 million of Cash, cash equivalents and other liquid investments at 31 December 2022. Key movements during the year are outlined below:

	2022 (£m)	2021 (£m)
Property, plant and equipment	37.3	47.2
Intangible assets	30.0	23.0
Right-of-use assets	25.9	14.7
Net Deferred tax asset	7.7	6.1
Working capital	70.4	45.0
Other assets and liabilities	11.6	9.9
Provisions	(13.3)	(35.4)
Cash and cash equivalents and other liquid investments	558.0	618.2
Loans	-	(9.5)
Lease Liabilities	(34.1)	(15.3)
Net assets	693.6	704.0

Property, plant and equipment

Property, plant and equipment additions of £23.1 million were made in the year (FY21: £21.5 million), including £12.6 million on devices with customers (FY21: £12.7 million) and £8.1 million was spent on manufacturing facilities and laboratories across our sites in the UK (FY21: £6.0 million).

On 8 July 2022, the Company sold its interest in the Gosling Building (the Property) to The Oxford Science Park (Properties) Limited (TOSP) for £42.5 million. TOSP immediately granted to the Company an occupational lease of the Property for 10 years at a rent of £1.8 million per annum (for which a right-of-use asset and related lease liability were recognised). Overall, the transaction resulted in a reduction in property, plant and equipment of £15.6 million, and a gain on disposal of £18.6 million.

On completion of the sale and leaseback of the Property, the term loan facility of £9.5 million with Barclays Bank plc was fully repaid.

Intangible assets

Intangible asset additions of £19.2 million (2021: £9.3 million) were made in the year relating to capitalised development costs.

Right-of-use assets

During the year Right-of-use asset additions were £15.5 million (2021: £3.5 million), predominantly as a result of the sale and leaseback of the Gosling Building, resulting in a net book value at 31 December 2022 of £25.9 million (2021: £14.7 million). As at 31 December 2022, the outstanding balance sheet liability in respect of the right-of-use assets was £34.1 million (2021: £15.3 million).

Working capital

The working capital balance of £70.4 million (2021: £45.0 million) predominantly reflects inventory of £87.7 million (2021: £63.1 million), trade and other receivables of £62.9 million (2021: £54.8 million) and trade and other payables of £80.3 million (2021: £72.9 million).

The increase in working capital was due primarily to increased inventory due to our long-term agreements with key suppliers focused on electric components. In particular, inventories related to flow cells have increased by £18.8 million, and devices have increased by £11.1 million in the period.

Provisions

Provisions of £13.3 million at 31 December 2022 (2021: £35.4 million), primarily relates to a provision for employer social security taxes on share awards of £10.8 million (2021: £33.2 million). The provision is estimated at each reporting period with reference to both the expected number of awards vesting and their expected value, using the share price at the reporting date. The release of the provision during the year is reflective of the reduction in share price from £6.99 at 31 December 2021 to £2.47 at 31 December 2022.

Cash, cash equivalents and other liquid investments

Cash, cash equivalents and other liquid investments were £558.0 million at 31 December 2022, a decrease of £60.2 million in the period.

Cash flow

In 2022, there was a net cash outflow of £49.4 million from operations (FY21: a net outflow of £53.2 million).

Cash outflows from investing activities were £65.8 million. This includes:

- the purchase of financial assets of £130.0 million, offset by the proceeds of other financial assets of £60.5 million
- the purchase of property, plant and machinery of £23.1 million
- the capitalisation of development costs of £19.2 million
- offset by the proceeds from the sale of the Gosling Building (£42.5 million) and interest received of £3.4 million

Cash outflows from financing activities were £13.7 million (2021: inflow of £622.9 million), which includes:

- the repayment of bank borrowings of £9.5 million (2021: £nil)
- lease and interest payments of £5.6 million (2021: £3.3 million), offset partially by
- proceeds from issue of shares of £3.7 million (2021: £642 million) less costs of share issue of £2.4 million (2021: £15.9 million)

Outlook

We remain focused on our vision to bring the widest benefits to society through the analysis of anything, by anyone, anywhere. The continuous strengthening of our team, the establishment of strategic partnerships across the globe, together with significant investment in platform development, bespoke electronics, IP and infrastructure, combined with the strength of our balance sheet, puts us in a strong position to achieve this goal and continue to deliver strong growth.

We continue to anticipate annual underlying LSRT revenue growth of more than 30% in the medium term and gross margins greater than 65%.

Consolidated Statement of Comprehensive Income

for the year ended 31 December 2022

	Note	2022 £000	2021 £000
Revenue	3	198,603	133,661
Cost of sales		(74,793)	(60,466)
Gross profit		123,810	73,195
Research and development expenses		(64,842)	(75,976)
Selling, general and administrative expenses		(157,447)	(161,752)
Loss from operations		(98,479)	(164,533)
Finance income		5,941	224
Finance expense		(1,628)	(908)
Other gains and losses	7	13,186	504
Share of loss in associate		(238)	(64)
Impairment of investment in associate		(2,193)	(1,227)
Loss before tax		(83,411)	(166,004)
Tax expense	8	(7,614)	(1,609)
Loss for the year		(91,025)	(167,613)
Other comprehensive income:			
Items that will or may be reclassified subsequently to profit or loss			
Fair value movements on investment bonds	7	936	–
Exchange gains arising on translation on foreign operations		4,021	388
Other comprehensive income for the year, net of tax		4,957	388
Total comprehensive loss		(86,068)	(167,225)
	Note	2022 Pence	2021 Pence
Loss per share	6	11	23

Consolidated Statement of Financial Position

as at 31 December 2022

	Note	2022 £000	2021 £000
Assets			
Non-current assets			
Property, plant and equipment	10	37,294	47,232
Intangible assets	9	30,039	23,004
Investment in associate		826	257
Right-of-use assets	11	25,906	14,687
Other financial assets	14	84,144	–
Deferred tax assets		7,681	6,077
		185,890	91,257
Current assets			
Inventories	12	87,698	63,071
Trade and other receivables	13	62,905	54,796
R&D tax credit recoverable		9,148	14,274
Other financial assets	14	119,411	130,628
Derivative financial assets	15	2,060	–
Cash and cash equivalents	19	356,778	487,840
		638,000	750,609
Total assets		823,890	841,866
Liabilities			
Non-current liabilities			
Loans	17	–	9,500
Lease liabilities	18	19,049	12,694
Share-based payment liabilities		108	312
Provisions	17	8,645	10,339
		27,802	32,845
Current liabilities			
Trade and other payables	16	80,249	72,872
Current tax liabilities	8	1,639	4,418
Lease liabilities	18	15,049	2,610
Derivative financial liabilities	15	962	106
Provisions	17	4,633	25,039
		102,532	105,045
Total liabilities		130,334	137,890
Net assets		693,556	703,976
Issued capital and reserves attributable to owners of the parent			
Share capital		83	82
Share premium reserve		627,557	623,760
Share-based payment reserve		168,200	96,350
Translation reserve		3,707	(314)
Accumulated deficit		(105,991)	(15,902)
TOTAL EQUITY		693,556	703,976

Consolidated Statement of Changes in Equity

as at 31 December 2022

	Share capital £000	Share premium £000	Share-based payment reserve £000	Translation reserve £000	Accumulated deficit £000	Total equity £000
At 1 January 2021	36	610,544	35,079	(702)	(459,023)	185,934
Loss for the year	—	—	—	—	(167,613)	(167,613)
Exchange gain on translation of foreign operations	—	—	—	388	—	388
Comprehensive gain/(loss) for the year	—	—	—	388	(167,613)	(167,225)
Issue of share capital	13	642,145	—	—	—	642,158
Bonus shares issued	37	—	—	—	(37)	—
Cancellation of deferred shares	(4)	—	—	—	4	—
Share premium cancellation	—	(610,767)	—	—	610,767	—
Cost of share issue	—	(18,162)	—	—	—	(18,162)
Employee share-based payments	—	—	60,707	—	—	60,707
Tax in relation to share-based payments	—	—	564	—	—	564
Total contributions by and distributions to owners	46	13,216	61,271	—	610,734	685,267
At 31 December 2021	82	623,760	96,350	(314)	(15,902)	703,976
Loss for the year	—	—	—	—	(91,025)	(91,025)
Exchange gain on translation of foreign operations	—	—	—	4,021	—	4,021
Fair value movements on investment bonds	—	—	—	—	936	936
Comprehensive gain/(loss) for the year	—	—	—	4,021	(90,089)	(86,068)
Issue of share capital	1	3,796	—	—	—	3,797
Cost of share issue	—	1	—	—	—	1
Employee share-based payments	—	—	71,165	—	—	71,165
Tax in relation to share-based payments	—	—	685	—	—	685
Total contributions by and distributions to owners	1	3,797	71,850	—	—	75,648
At 31 December 2022	83	627,557	168,200	3,707	(105,991)	693,556

Consolidated Statement of Cash Flows

for the year ended 31 December 2022

		2022 £000	2021 £000
Net cash outflow from operating activities	19	(49,387)	(53,204)
Investing activities			
Purchase of property, plant and equipment		(23,071)	(21,536)
Proceeds from sale of property	10	42,500	–
Capitalisation of development costs	9	(19,163)	(9,281)
Investment in associate		–	(1,000)
Interest received		3,443	207
Purchase of other financial assets		(129,962)	(130,375)
Proceeds from other financial assets		60,459	–
Net cash outflow from investing activities		(65,794)	(161,985)
Financing activities			
Proceeds from issue of shares		3,751	642,144
Costs of share issue		(2,378)	(15,929)
Principal elements of lease payments		(4,111)	(2,361)
Repayment of bank borrowings		(9,500)	–
Interest paid		(221)	(283)
Interest paid on leases		(1,256)	(666)
Net cash (outflow)/inflow from financing activities		(13,715)	622,905
Net (decrease)/increase in cash and cash equivalents before foreign exchange movements		(128,896)	407,716
Effect of foreign exchange rate movements		(2,166)	(739)
Cash and cash equivalents at beginning of year		487,840	80,863
Cash and cash equivalents at end of year	19	356,778	487,840

Notes to the Condensed Financial Information

for the year ended 31 December 2022

1. General information

Oxford Nanopore Technologies plc (the “Company”) is a public limited company incorporated in the United Kingdom under the Companies Act 2006 and is registered in England and Wales. The Company’s registered office is at Gosling Building, Edmund Halley Road, Oxford Science Park, Oxford, Oxfordshire, OX4 4DQ. This condensed financial information comprises the Company and its subsidiaries (collectively the “Group” and individually “Group companies”). The Group is primarily involved in researching, developing, manufacturing and commercialising the world’s only commercial nanopore based sequencing platform that allows the real time analysis of deoxyribonucleic acid (“DNA”) or ribonucleic acid (“RNA”). This enables our customers to perform scientific/biomedical research in a range of areas, including human genetics, cancer research, outbreak surveillance, environmental analysis, pathogens/antimicrobial resistance, microbiome analysis and crop science. These emerging uses may include applications in healthcare, agriculture, biopharma production, food/water supply chain surveillance, and education or consumer markets; anywhere where DNA information can tell a user about a sample: for example its identity, whether it is changing, healthy or diseased.

The Company is the parent entity and the ultimate parent company of the Group.

The financial statements are presented in UK sterling because that is the currency of the primary economic environment in which the Group operates, and are rounded to the nearest thousand pounds. Foreign operations are included in accordance with the policies set out in the accounting policies.

The Annual Report and Group financial statements for the year ended 31 December 2022 were approved by the Board of Directors on 20 March 2023. The report of the auditor on those Group financial statements was unqualified, did not contain an emphasis of matter paragraph and did not contain any statement under section 498 of the Companies Act 2006. The Annual Report and Group financial statements for 2022 will be filed with the Registrar in due course. The Annual Report and Group financial statements for the year ended 31 December 2021 were approved by the Board of Directors on 31 March 2022. The report of the auditor on those Group financial statements was unqualified, did not contain an emphasis of matter paragraph and did not contain any statement under section 498 of the Companies Act 2006.

2. Going concern

As at 31 December 2022, the Group held £558.0 million in cash, cash equivalents and other liquid investments (note 22) on the Statement of Financial Position.

The going concern assessment period is the 12 months to the end of March 2024.

In order to satisfy the going concern assumption, the Directors of the Group review its budget periodically, which is revisited and revised as appropriate in response to evolving market conditions.

The Directors have considered the budget and forecast prepared through to the end of March 2024, the going concern assessment period, and the impact of a range of severe, but plausible, scenarios, including supply chain issues driven by demand, logistics interruptions, the pandemic, heightened geopolitical tension; particularly between the United States of America and the People’s Republic of China and the war in the Ukraine.

In particular, the impact of key business risks on revenue, profit and cash flow are as follows:

- Reduced revenues due to customer, regulatory and research and development (“R&D”) delays; and
- Increased costs due to supply chain restrictions, rising utilities costs, rising wages & salary costs, additional R&D requirements and rising costs of component parts.

Under all scenarios, the Group had sufficient funds to maintain trading before taking into account any mitigating actions that the Directors could take. Accordingly, the Directors have a reasonable expectation that the Group has adequate resources to continue in operation for the foreseeable future and at least one year from the date of approval of the financial statements. On the basis of these reviews, the Directors consider it remains appropriate for the going concern basis to be adopted in preparing this condensed financial information.

3. Revenue

The Group derives revenue from the transfer of goods and services over time and at a point in time in the following categories and geographical regions:

	2022 £000	2021 £000
Geographical region		
Americas	48,300	33,370
Europe and United Kingdom	95,123	40,103
China	19,290	10,975
United Arab Emirates	15,379	31,722
Asia Pacific and Japan	14,286	11,126
Emerging markets	6,225	6,365
Total revenue from contracts with customers	198,603	133,661

	2022 £000	2021 £000
Category		
Sale of goods	177,672	117,401
Rendering of services	9,902	7,309
Lease income	11,029	8,951
Total revenue from contracts with customers	198,603	133,661

	2022 £000	2021 £000
Timing of revenue recognition		
At a point in time	177,672	117,401
Over time	20,931	16,260
Total revenue from contracts with customers	198,603	133,661

Notes 13 and 16 disclose assets and liabilities the Group has recognised in relation to contracts with customers.

Revenue recognised in relation to contract liabilities:

	2022 £000	2021 £000
Revenue recognised that was included in the contract liability balance at the beginning of the year	17,670	12,230

4. Segment information

Products and services from which reportable segments derive their revenues are set out below.

The information reported to the Group's senior management team, which is considered the chief operating decision maker ("CODM"), for the purposes of resource allocation and assessment of segment performance is defined by market rather than product type. The segment measure of profit evaluated by the CODM is Adjusted EBITDA, as this is considered to give the most appropriate information in respect of profitability of the individual segments.

The Directors consider that the Group reportable segments in accordance with IFRS 8 Operating Segments are as set out below:

Reportable segments	Description
Life Science Research Tools ("LSRT")	Oxford Nanopore's core business, generating revenue from providing products and services for research use, including research and development expenditure and corporate expenditure.
Covid Testing	Revenue from providing products for SAR-Cov-2 testing. It should be noted that sequencing products continue to be used for the purposes of COVID genomic surveillance, including variant identification, but this is reporting within the LSRT segment.

The accounting policies of the reportable segments are the same as the Group's accounting policies.

(a) Information about major customers

In the year the Group had two major customers i) the Department of Health and Social Care, the revenue from this customer was £51.8 million, which represented 26.0% of Group revenue (2021: £5.3 million, or 4% of total revenue) and ii) a customer in the United Arab Emirates with revenue of £14.7 million which represented 7.4% of Group revenue (2021: £31.3 million or 23.4% of total revenue).

The following is an analysis of the Group's revenue, results, assets and liabilities by reportable segment.

	LSRT £000	Covid Testing £000	2022 £000	LSRT £000	Covid Testing £000	2021 £000
Revenue						
Americas	48,300	–	48,300	33,348	22	33,370
Europe and United Kingdom	43,335	51,788	95,123	33,425	6,678	40,103
China	19,290	–	19,290	10,975	–	10,975
United Arab Emirates	15,379	–	15,379	31,722	–	31,722
Asia Pacific and Japan	14,286	–	14,286	11,126	–	11,126
Emerging markets	6,225	–	6,225	6,365	–	6,365
Total revenue	146,815	51,788	198,603	126,961	6,700	133,661

(b) Adjusted EBITDA

	LSRT £000	Covid Testing £000	2022 £000	LSRT £000	Covid Testing £000	2021 £000
(Loss)/Profit after tax	(128,824)	37,799	(91,025)	(168,942)	1,329	(167,613)
Tax expense	7,614	–	7,614	1,609	–	1,609
Finance income	(5,941)	–	(5,941)	(224)	–	(224)
Finance expense	221	–	221	242	–	242
Interest on lease	1,382	25	1,407	666	–	666
Depreciation and amortisation	31,799	72	31,871	23,075	1,616	24,691
Share-based payments (Founder LTIP)	53,182	–	53,182	37,551	–	37,551
Employer's social security taxes on Founder LTIP and pre-IPO share awards	(21,634)	–	(21,634)	39,291	–	39,291
IPO costs expensed	–	–	–	4,829	–	4,829
Gain on sale of property	(18,620)	–	(18,620)	–	–	–
Settlement of Covid-19 Testing contract	–	(37,896)	(37,896)	–	–	–
Impairments	2,193	–	2,193	1,227	–	1,227
Adjusted EBITDA	(78,628)	–	(78,628)	(60,676)	2,945	(57,731)

Adjusted EBITDA is defined as loss for the year before income tax expense, finance income, loan interest, interest on lease, depreciation and amortisation, adjusted for: i) share-based payment expense on Founder LTIP awards; ii) employer's social security taxes on Founder LTIP and pre-IPO share awards; iii) IPO costs expensed in the statement of comprehensive income; iv) impairment of investment in associate; v) gain on sale of property; and vi) settlement of the Covid-19 testing contract.

4. Segment information continued

(c) Supplementary information

	LSRT £000	Covid Testing £000	2022 £000	LSRT £000	Covid Testing £000	2021 £000
Depreciation of property, plant and equipment	15,968	–	15,968	12,890	–	12,890
Depreciation of right-of-use assets	4,403	72	4,475	2,512	145	2,657
Amortisation of internally generated intangible assets	11,378	–	11,378	7,623	1,471	9,094
Amortisation of acquired intangible assets	50	–	50	50	–	50
Additions to non-current assets*	57,775	–	57,775	34,311	–	34,311
Segment assets						
Investment in associate	826	–	826	257	–	257
Acquired intangible assets	346	–	346	396	–	396
Other segment assets**	243,496	–	243,496	187,973	14,421	202,394
Total segment assets	244,668	–	244,668	188,626	14,421	203,047
Deferred tax assets			7,681			6,077
R&D tax credit recoverable			9,148			14,274
Derivative financial assets			2,060			–
Other financial assets			203,555			130,628
Cash and cash equivalents			356,778			487,840
Total assets			823,890			841,866
Segment liabilities						
Total segment liabilities	(127,733)	–	(127,733)	(122,643)	(1,223)	(123,866)
Derivative financial liabilities			(962)			(106)
Current tax liabilities			(1,639)			(4,418)
Non-current borrowings			–			(9,500)
Total liabilities			(130,334)			(137,890)
Net assets			693,556			703,976

* Additions to non-current assets include all non-current assets except for investments, and deferred tax assets.

** Other segment assets include inventory, trade and other receivables and non-current assets except for investments, acquired intangible assets, other financial assets and deferred tax assets.

The Group's non-current assets, excluding deferred tax assets, by geographical location are detailed below:

	LSRT £000	Covid Testing £000	2022 £000	LSRT £000	Covid Testing £000	2021 £000
Americas	11,255	–	11,255	6,023	–	6,023
Europe and United Kingdom	166,401	–	166,401	76,452	2,302	78,754
China	96	–	96	320	–	320
Asia Pacific and Japan	335	–	335	83	–	83
United Arab Emirates	122	–	122	–	–	–
	178,209	–	178,209	82,878	2,302	85,180

5. Loss before tax

	2022 £000	2021 £000
This is after charging/(crediting):		
Non-staff research and development costs	32,651	27,101
Amortisation of intangible assets	11,428	9,144
Depreciation of property, plant and equipment	15,968	12,890
Depreciation of right-of-use assets	4,475	2,657
(Gain)/loss on disposal of property, plant and equipment	(16,740)	837
Cost of inventories	42,559	38,615
Write-down of inventories	6,045	4,368
Short-term lease costs	602	180
Impairment of intangible assets	736	-
Impairment of investment in associate	2,193	1,227
Net foreign exchange (gain)/loss	(2,490)	1,468

All amounts relate to continuing operations.

Amortisation of internally generated intangible assets is included within selling, general & administration expenses in the consolidated statement of comprehensive income.

6. Loss per share

	2022 Pence	2021 Pence
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(a) Basic and diluted loss per share

Total basic and diluted loss per share attributable to the ordinary equity holders of the Group from continuing operations	11	23
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	2022 £000	2021 £000
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(b) Reconciliation of earnings used in calculating earnings per share

Loss attributable to the ordinary equity holders of the Group used in calculating basic and diluted loss per share from continuing operations	(91,025)	(167,613)
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	2022 Number	2021 Number
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(c) Weighted average number of shares used as the denominator

Weighted average number of ordinary shares and potential ordinary shares used as the denominator in calculating basic and diluted earnings per share	823,742,709	731,938,586
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Options

Options granted to employees under the Oxford Nanopore Technologies Share Option Scheme and the Oxford Nanopore Technologies Limited Share Option Plan 2018 are considered to be potential ordinary shares. These options have not been included in the determination of the basic and diluted loss per share as shown above, because they are anti-dilutive for the year ended 31 December 2022 and 31 December 2021. These options could potentially dilute basic earnings per share in the future.

7. Other gains and losses

	2022 £000	2021 £000
(Loss)/gain on derivative financial instruments	(5,434)	504
Gain on sale of property (see note 10)	18,620	—
	13,186	504

	2022 £000	2021 £000
Fair value movements on investment bonds (included in other comprehensive income)	936	—

Further information on derivative financial instruments is disclosed in note 15.

8. Tax on loss on ordinary activities

8.1 Income tax recognised in profit or loss

	2022 £000	2021 £000
Current tax		
Notional tax on R&D expenditure credit (RDEC)	1,187	800
Prior year adjustment in respect of research and development tax credit	159	69
Prior year adjustment in respect of current tax	519	(48)
Tax payable on foreign subsidiary	6,059	5,344
Total current tax	7,924	6,165
Deferred tax		
Origination and reversal of temporary differences	(310)	(4,556)
Total deferred tax	(310)	(4,556)
Total tax expense	7,614	1,609

Current tax balances have been calculated at the rates enacted for the period. The effective rate of Corporation Tax is -9.13% (2021: -0.97%) of the loss before tax for the Group.

The reasons for the difference between the actual tax charge for the year and the standard rate of Corporation Tax in the United Kingdom applied to losses for the year are as follows:

	2022 £000	2021 £000
Loss for the year	(91,025)	(167,613)
Income tax expense	7,614	1,609
Loss before income taxes	(83,411)	(166,004)
Tax rate in the UK for period as a percentage of losses at 19% (2021: 19%)	(15,848)	(31,541)
R&D incentives	813	(323)
Expenses not deductible for tax purposes	1,014	1,180
Adjustment in respect of overseas tax rates	1,104	1,031
Adjustments to tax charge in respect of prior periods	62	120
Impact of share options	12,337	(1,955)
Movement on unrecognised deferred tax	7,845	32,983
Other timing differences	287	114
Total tax expense	7,614	1,609

8.2 Current tax liabilities

	2022 £000	2021 £000
Corporation Tax payable	(1,639)	(4,418)
	(1,639)	(4,418)

9. Intangible assets

	Capitalised development costs £000	Patents and licenses £000	Total £000
Cost			
At 1 January 2021	29,183	446	29,629
Additions from internal development	9,281	–	9,281
At 31 December 2021	38,464	446	38,910
Additions from internal development	19,163	–	19,163
Foreign exchange movements	36	–	36
At 31 December 2022	57,663	446	58,109
Accumulated amortisation and impairment			
At 1 January 2021	6,762	–	6,762
Charge for the year	9,094	50	9,144
At 31 December 2021	15,856	50	15,906
Charge for the year	11,378	50	11,428
Impairment	736	–	736
At 31 December 2022	27,970	100	28,070
Net book value			
At 31 December 2021	22,608	396	23,004
At 31 December 2022	29,693	346	30,039

Development costs have been capitalised in accordance with IAS 38 Intangible Assets and are therefore not treated as a realised loss until recognised as an amortisation or impairment charge in the statement of comprehensive income.

10. Property, plant and equipment

	Land & Buildings £000	Leasehold improvements £000	Plant and machinery £000	Assets under construction £000	Assets subject to operating leases £000	Equipment £000	Total £000
Cost or valuation							
At 1 January 2021	16,401	6,529	16,420	191	20,002	11,136	70,679
Additions	–	745	3,544	1,791	12,711	2,745	21,536
Disposals	–	–	(23)	–	(2,725)	(232)	(2,980)
Transfers between classes	(1,344)	1,636	(391)	–	–	99	–
Foreign exchange movements	–	(2)	7	–	87	14	106
At 31 December 2021	15,057	8,908	19,557	1,982	30,075	13,762	89,341
Additions	–	350	1,249	6,897	12,627	1,985	23,108
Disposals	(15,057)	(1,607)	(317)	(691)	(3,921)	(87)	(21,680)
Transfers between classes	–	2,822	2,059	(5,356)	–	475	–
Foreign exchange movements	–	20	49	–	1,064	130	1,263
At 31 December 2022	–	10,493	22,597	2,832	39,845	16,265	92,032
Accumulated depreciation and impairment							
At 1 January 2021	2,226	1,506	8,612	–	11,494	7,455	31,293
Charge for the year	298	1,139	2,552	–	6,450	2,451	12,890
Disposals	–	–	(9)	–	(2,130)	(4)	(2,143)
Transfers between classes	(1,293)	1,293	–	–	–	–	–
Foreign exchange movements	–	1	3	–	52	13	69
At 31 December 2021	1,231	3,939	11,158	–	15,866	9,915	42,109
Charge for the year	149	1,276	3,112	–	9,086	2,345	15,968
Disposals	(1,380)	(640)	(114)	–	(2,036)	(46)	(4,216)
Impairments	–	28	117	–	–	–	145
Foreign exchange movements	–	5	41	–	588	98	732
At 31 December 2022	–	4,608	14,314	–	23,504	12,312	54,738
Net book value							
At 31 December 2021	13,826	4,969	8,399	1,982	14,209	3,847	47,232
At 31 December 2022	–	5,885	8,283	2,832	16,341	3,953	37,294

On 8 July 2022, the Company sold its interest in the Gosling Building (the “Property”) to The Oxford Science Park (Properties) Limited (“TOSP”) for £42.5 million. TOSP immediately granted to the Company an occupational lease of the Property for ten years at a rent of £1.8 million per annum (for which a right-of-use asset and related lease liability were recognised). Overall, the transaction resulted in a reduction in net property, plant and equipment of £15.6 million, and a gain on disposal of £18.6 million.

The Group leases some of its devices to customers. Lease payments in relation to these devices are received either in advance or within the year. Therefore, no maturity analysis of lease payments has been included.

11. Right-of-use assets

	Total £000
Cost	
At 1 January 2021	18,141
Additions	3,494
Disposals	(1,398)
Foreign exchange movements	65
At 31 December 2021	20,302
Additions	15,504
Disposals	(973)
Foreign exchange movements	586
At 31 December 2022	35,419
Accumulated depreciation	
At 1 January 2021	4,326
Charge for the year	2,657
Disposals	(1,398)
Foreign exchange movements	30
At 31 December 2021	5,615
Charge for the year	4,475
Disposals	(782)
Foreign exchange movements	205
At 31 December 2022	9,513
Net book value	
At 31 December 2021	14,687
At 31 December 2022	25,906

Additions in the year included £5.0 million for the lease of the Gosling Building. See note 10 for further details of this transaction.

12. Inventories

	2022 £000	2021 £000
Raw materials	41,852	25,781
Work in progress	34,960	17,830
Finished goods	10,886	19,460
	87,698	63,071

The carrying amount of inventories was not materially different from their replacement cost.

13. Trade and other receivables

	2022 £000	2021 £000
Trade receivables	38,097	38,198
Contract assets	3,084	275
Other debtors	4,724	2,834
Accrued interest income	1,065	32
Other taxes	5,262	5,353
Prepayments	10,673	8,104
	62,905	54,796

Contract assets relate to the Group's rights to consideration for goods and services provided but not billed at the reporting date for goods and services provided. They are transferred to receivables when the rights become unconditional. This usually occurs when an invoice is issued to the customer.

14. Other financial assets

	2022 £000	2021 £000
Treasury deposits	101,274	130,375
Investment bonds	100,898	—
Other financial assets	1,383	253
	203,555	130,628

These items were analysed as follows:

	2022 £000	2021 £000
Current	119,411	130,628
Non-current	84,144	—
	203,555	130,628

15. Derivative financial assets and liabilities

	2022 £000	2021 £000
Derivative financial assets		
Foreign currency forward contracts	2,060	—
	2,060	—
Derivative financial liabilities		
Foreign currency forward contracts	962	106
	962	106

16. Trade and other payables

	2022 £000	2021 £000
Trade payables	23,103	20,486
Share-based payments	460	1,416
Payroll taxation and social security	2,585	6,573
Accruals	33,801	22,767
Contract liabilities	20,300	21,630
	80,249	72,872

Trade payables and accruals principally comprise amounts outstanding for trade purchases and ongoing costs. The average credit period taken for trade purchases by the Group is 59 days (2021: 57 days).

The Group has financial risk management policies in place to ensure that all payables are paid within the pre-agreed credit terms.

The Directors consider that the carrying amount of trade payables approximates their fair value.

Contract liabilities primarily relate to performance obligations on customer contracts which were not satisfied at 31 December. In 2022 they decreased by £1.3 million (2021: increase of £3.8 million). Management expects that most of the transaction price allocated to unsatisfied performance obligations as at 31 December 2022 will be recognised as revenue during the following year.

17. Loans and provisions

	2022 £000	2021 £000
Loans		
Loan for land and building purchase	–	9,500
	–	9,500

On 8 July 2022, the Company completed the sale of its interest in the Gosling Building to The Oxford Science Park (Properties) Limited for £42.5 million. On completion of the sale, the term loan facility of £9.5 million with Barclays Bank plc was fully repaid. The average interest rate charged in the year was 3.51% (2021: 2.90%).

	Dilapidation provisions £000	Employer taxes £000	Other £000	Total provisions £000
Provisions				
At 31 December 2021	1,503	33,192	683	35,378
Movement in provision for the year	826	(21,463)	(141)	(20,778)
Payments	–	(1,093)	(389)	(1,482)
Foreign exchange movements	17	136	7	160
At 31 December 2022	2,346	10,772	160	13,278
Current	–	4,473	160	4,633
Non-current	2,346	6,299	–	8,645
At 31 December 2022	2,346	10,772	160	13,278
Current	–	24,356	683	25,039
Non-current	1,503	8,836	–	10,339
At 31 December 2021	1,503	33,192	683	35,378

The dilapidation provision relates to the leased properties, representing an obligation to restore the premises to their original condition at the time the Group vacates the related properties.

The provision is non-current and expected to be utilised between two and 21 years.

Employer's social security taxes relates to the expected employer's taxes on share-based payments. This is expected to be utilised between one and ten years. The provision is based on the best estimate of the liability, which is reviewed and updated at each reporting period. The provision is accrued over the vesting period to build up to the required liability at the point it is ultimately due.

18. Lease liabilities

	2022 £000	2021 £000
Current	15,049	2,610
Non-current	19,049	12,694
Lease liabilities included in the statement of financial position	34,098	15,304

The increase in the current year included a £12.6 million liability arising in respect of the lease of the Gosling Building. See note 10 for more details on this transaction.

Information on the associated right-of-use assets is included in note 11.

19. Notes to the cash flow statements

	2022 £000	2021 £000
Cash and cash equivalents	356,778	487,840

Cash and cash equivalents comprise cash and short-term bank deposits with an original maturity of three months or less. The carrying amount of these assets is approximately equal to their fair value. Cash and cash equivalents at the end of the reporting period as shown in the consolidated statement of cash flows can be reconciled to the related items in the consolidated reporting position as shown above.

	2022 £000	2021 £000
Loss before tax	(83,411)	(166,004)
Depreciation on property, plant and equipment	15,968	12,890
Depreciation on right-of-use assets	4,475	2,657
Amortisation on intangible assets	11,428	9,144
Loss on disposal of property, plant and equipment	1,880	837
Research and development expense tax credit	(7,084)	(4,210)
Foreign exchange movements	5,556	1,071
Interest on leases	1,407	666
Bank interest income	(5,941)	(224)
Bank interest expense	221	242
Non-cash movements on derivatives	(1,203)	166
Impairment of investment	2,193	1,227
Impairment of operating assets	1,173	–
Share of losses in associate	238	64
Gain on sale of property - see note 10	(18,620)	–
Employee share benefit costs including employer's social security taxes	48,784	62,453
Operating cash flows before movements in working capital	(22,936)	(79,021)
(Increase)/decrease in receivables	(7,402)	10,888
Increase in inventory	(24,717)	(27,444)
Increase in payables	4,434	33,571
Cash used in operations	(50,621)	(62,006)
Income taxes - R&D tax credit received	10,864	9,763
Foreign tax paid	(9,630)	(961)
Net cash outflow from operating activities	(49,387)	(53,204)

19. Notes to the cash flow statements continued

(i) Changes in liabilities arising from financing activities

The table below details change in the Group's liabilities arising from financing activities, including both cash and non-cash changes. Liabilities arising from financing activities are those for which cash flows were, or future cash flows will be, classified in the Group's consolidated cash flow statement as cash flows from financing activities.

	Bank loan £000	Lease liabilities £000	Total £000
At 1 January 2021	9,500	14,132	23,632
Non-cash changes			
New leases	–	3,494	3,494
Interest	–	666	666
Foreign exchange movements	–	39	39
Cash changes			
Principal repaid	–	(2,361)	(2,361)
Interest paid	–	(666)	(666)
At 31 December 2021	9,500	15,304	24,804
Non-cash changes			
New leases	–	22,523	22,523
Lease surrendered	–	(191)	(191)
Interest	–	1,407	1,407
Foreign exchange movements	–	422	422
Cash changes			
Bank loan repaid	(9,500)	–	(9,500)
Principal repaid	–	(4,111)	(4,111)
Interest paid	–	(1,256)	(1,256)
At 31 December 2022	–	34,098	34,098

20. Related party transactions

Balances and transactions between the Company and its subsidiaries, which are related parties of the Company, have been eliminated on consolidation and are not disclosed in this note. Details of transactions between the Group and other related parties are disclosed below.

In 2022 the Company invested a further £3.0 million in its associate, Veiovia Limited, which is related to the Company by shared directorship of JP Willcocks. A total of £4.5 million has now been invested in Veiovia Limited. During the year, an impairment of £2.2 million was recognised through the statement of comprehensive income.

The Company paid academic research costs in 2022 of £0.5 million (2021: £0.2 million) to the University of Oxford, which is related to the Company by shared directorship of W Becker.

21. Controlling party

There is no ultimate controlling party of the Group as ownership is split between the Company's shareholders. The most significant shareholders at 31 December 2022 were as follows: IP Group (10%), Tencent Holdings (8%), Baillie Gifford (6%), G42 (5%) and GIC Asset Management (5%).

22. Alternative performance measures

The Group's performance is assessed using a number of financial measures which are not defined under IFRS and are which therefore comprise alternative (non-GAAP) performance measures. These are as follows:

- **Underlying LSRT revenue growth:** LSRT revenue growth excluding EGP and COVID sequencing revenue;
- **Underlying LSRT revenue growth on a constant currency basis:** LSRT revenue growth excluding EGP and COVID sequencing revenue, on a constant currency basis;
- **Adjusted research and development expenses:** research and development expenses after adjusting for employer's social security taxes on pre-IPO share awards;
- **Adjusted selling, general and administrative expenses:** selling, general and administrative expenses after adjusting for share-based payment expense (Founder LTIP), employer's social security taxes on Founder LTIP and pre-IPO share-based awards and IPO costs expensed;
- **EBITDA:** loss for the year before income tax expense, finance income, loan interest, interest on lease, depreciation and amortisation;
- **Adjusted EBITDA:** EBITDA adjusted for i) share-based payment expense on Founder LTIP awards; ii) employer's social security taxes on Founder LTIP pre-IPO share awards; iii) IPO costs expensed in the statement of comprehensive income; iv) impairment of investment in associate; v) gain on sale of property; and vi) settlement of the Covid-19 testing contract; and
- **Cash, cash equivalents and other liquid investments:** total cash and cash equivalents, which comprise cash in hand, deposits held at call and other short-term highly liquid investments with a maturity of three months or less at the date of acquisition. Other liquid investments comprise investment bonds in which a fixed sum is invested in an asset-backed fund, treasury deposits, and investment bonds, which comprise deposits held with banks that do not meet the IAS 7 definition of a cash equivalent.

The following table presents the adjusted underlying LSRT revenue growth

	2022 £000	2021 £000
LSRT Revenue	146,815	126,961
Adjusting Items:		
EGP revenue	(13,172)	(30,562)
COVID sequencing revenue	(26,112)	(17,545)
Underlying LSRT revenue	107,531	78,854
Growth	+36.4%	
Impact of foreign exchange	(5,370)	-
Underlying LSRT revenue on a constant currency basis	102,161	78,854
Growth	+29.6%	

The following table presents the adjusted research and development:

	2022 £000	2021 £000
Research and development expenses	64,842	75,976
Adjusting Items:		
Employer's social security taxes on pre-IPO share awards	9,890	(17,748)
Adjusted research and development expenses	74,732	58,228
Capitalised development costs	19,163	9,281
Adjusted R&D expenses and capitalised development costs	93,895	67,509

22. Alternative performance measures continued

The following table presents the adjusted selling, general and administrative expenses

	2022 £000	2021 £000
Selling, general and administrative expenses	157,447	161,752
Adjusting Items:		
Share-based payment expense on Founder Long Term Incentive Plan (LTIP)	(53,182)	(37,551)
Employer's social security taxes on Founder LTIP and pre-IPO share awards	11,743	(21,544)
IPO costs expensed in statement of comprehensive income	–	(4,829)
Adjusted selling, general and administrative expenses	116,008	97,828

The following table presents the Group's EBITDA and Adjusted EBITDA, together with a reconciliation to loss for the year:

	2022 £000	2021 £000
Loss for the year	(91,025)	(167,613)
Tax expense	7,614	1,609
Finance income	(5,941)	(224)
Loan interest	221	242
Interest on lease	1,407	666
Depreciation and amortisation	31,871	24,691
EBITDA	(55,853)	(140,629)
Share-based payments (Founder LTIP)	53,182	37,551
Employer's social security (credit)/charge on Founder LTIP and pre-IPO share-based awards	(21,634)	39,291
Gain on sale of property	(18,620)	–
Settlement of Covid-19 testing contract	(37,896)	–
Impairment of investment in associate	2,193	1,227
IPO costs expensed	–	4,829
Adjusted EBITDA	(78,628)	(57,731)

The following table presents cash, cash equivalents and other liquid investments:

	2022 £000	2021 £000
Cash and cash equivalents	356,778	487,840
Treasury deposits	101,274	130,375
Investment bonds	100,898	–
Less: fair value movements on investment bonds	(936)	–
Cash, cash equivalents and other liquid investments	558,014	618,215