OXFORD
INSTRUMENTS

Oxford Instruments plc

Sustainability Report 2022

Welcome from the Sustainability Chair

> As we reflect on everything the world experienced in recent times, it makes our purpose even more relevant - enabling a greener, healthier, more connected advanced society.

Sir Nigel Sheinwald
Chair of the Sustainability Committee

Contents

I am delighted this year to introduce our first stand-alone sustainability report, which reflects our environmental, social and governance activities throughout the year, as well as the framework we will use going forward to deliver on our commitments.

Whilst we have been on our sustainability journey for many years, we welcome the opportunity to present our progress and plans in this dedicated report. We see this as a way of bringing together the relevant information to make it easier for our stakeholders to understand what we are doing to make a positive impact on the world around us.

Throughout the year we have continued our commitment to ensuring that we are a responsible business. We support the increased prominence of sustainability topics in the context of the covid pandemic, the continuing challenges climate change creates and societal development across the world. As we reflect on the events of the last couple of years, our purpose becomes more pressing and more relevant - enabling a greener, healthier, more connected advanced society.

In addition to the increased prominence of sustainability in society, the establishment of our Board Sustainability Committee reflects the increasingly prominent role of sustainability within our organisation. The Sustainability Committee has helped to bring focus to the initiatives developed by the executive-led sustainability team at Board level.

We have ensured that the Board has a clear understanding of the sustainability landscape and best practice governance through training materials and engagement with specialists and advisors. This has helped steer the evolution of our sustainability agenda and the targets and measures we will put in place to monitor progress. It is key that this agenda is well embedded across the Group's decision-making and operational processes as it will create long-term value for all our stakeholders.

The Board also recognises the commitment of the leadership team in embracing the environmental, social and governance considerations essential to running a modern business. They are working hard to enable employees to be successful and realise their full potential, whilst actively engaging in locally focused activities to make local communities and environments a better place to live and work.
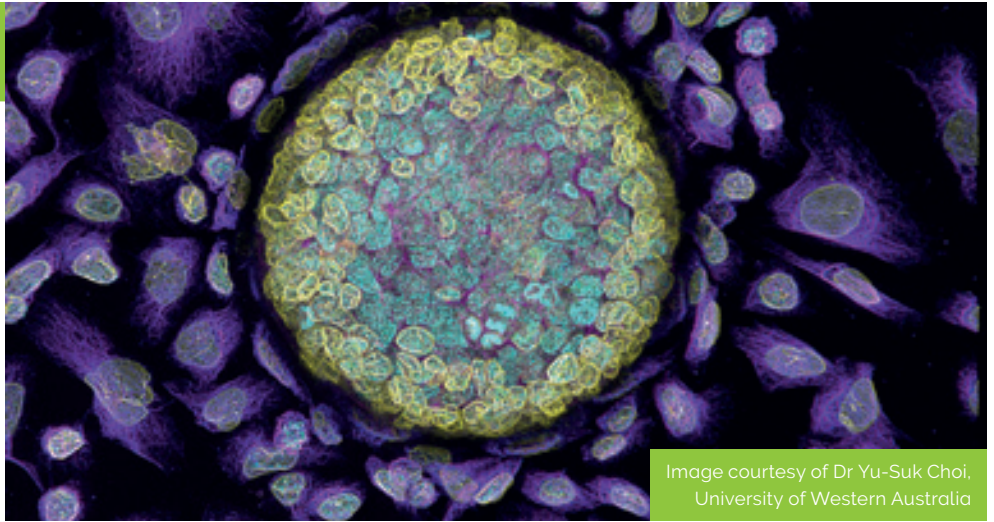
Image courtesy of Dr Yu-Suk Choi, University of Western Australia

I am encouraged by the already strong position the Group is in, and this reflects the enthusiasm within our workforce for a progressive and ambitious set of policies. During my first months on the Board, I had the pleasure of meeting employees from across the Group, giving me an insight into what our teams value about working at Oxford Instruments. As we move forward, we will continue to draw on our employees' energy to find innovative solutions to the challenges we face as an organisation today. We will continue to encourage engagement with our suppliers to align them with our goals, and will continue supporting our customers with their own sustainability ambitions.

I have also been impressed by the strong track record the Group has in significantly reducing CO2 emissions and waste products from our manufacturing processes and facilities – Scope 1 and 2. I am confident that by extending this positive engagement into our efforts to reduce the environmental impact of our broader supply chain and customer activities, we will continue to make progress on reducing our Scope 3 emissions.

In the years ahead we will strive to expand both our reporting and the extent of our sustainability targets. We aim to be ambitious across the board and we see no contradiction between our commitment to highly competitive financial and operational results on the one hand and delivering on our responsibilities to society, our stakeholders and workforce on the other. We see them both as part of the same strategy and our sustainability ambition as a competitive differentiator.

In conclusion, the Group is well positioned to play an important role in helping to drive positive change in the world. Advanced technology is a key element to achieving environmental sustainability. As well as being a technical leader, Oxford Instruments is on the path to becoming a green leader in the marketplace. Through this leadership role in our sector, our technologies can provide a pathway to a greener, healthier, more connected advanced society.

CEO Sustainability Welcome

We have a leadership team and employee base that are passionate about sustainability, supporting our progress to date and our ongoing journey.

Ian Barkshire
Chief Executive

Introduction

As a Group we believe sustainability is the cornerstone of our strategy to drive stakeholder value and we recognise the important role we play and the impact we have on the environment and society. Through our products and services, we make a significant positive impact on the world by enabling a greener economy, improved healthcare and a more connected advanced society.

This report demonstrates our ongoing commitment to reducing the impact of our operations and the communication of the progress we are making with our sustainability agenda. In the year, we have undertaken a thorough assessment of all aspects of our sustainability programme to identify key areas where our efforts will have the greatest impact, as well as mapping our route to net zero.

Through our leadership team, we are taking a holistic approach to sustainability ensuring that it is embedded in everything we do across the organisation.

Structure

Since its establishment during the financial year, our Board-level Sustainability Committee has embraced the importance of its role in driving the Group's sustainability agenda at Board level and overseeing activity within the Company. Upon his appointment to the Board in September 2022, Nigel Sheinwald has chaired this committee and brings a wealth of experience to our organisation from his previous role as chair of Shell's sustainability committee.

The development and implementation of our sustainability programme is led by me and the executive team including our environmental positioning, our social agenda and the execution of our governance commitments. Our guiding principle is to be a leading organisation in the global approach to sustainability. A such, we have set the ambition to be ahead of the curve on a number of themes, which have been selected based on the following:

- Our values and purpose
- Material impact on the world and our strategic performance
- Stakeholder areas of focus and direction of travel
- Internationally recognised recommendations e.g. UN 17 Sustainability Goals
- Legislative framework of the countries in which we operate

Sustainability Agenda

Key sustainability considerations:

Environment: We recognise the role we have in addressing environmental issues including climate change through our operations and products.

Employees: We create an inclusive environment and culture, with continued investment in our people to help them succeed.

Governance: We maintain high standards of corporate governance and are committed to conducting business responsibly.

Health and safety: We provide a safe workplace and working environments for all our employees, ensuring our people work injury free and with support for their health and wellbeing.

Customers: We deliver value for our customers, helping them to achieve their own sustainability objectives and address some of the world's most pressing challenges.

Compliance: We are united by strong standards and values and through our policies have created transparency for our stakeholders on how we do business and what we expect of ourselves and those we work with.

Delivering on our purpose and values demonstrates our dedication to being a sustainability leader through continuous improvements in our own operations, whilst supporting and enabling our customers to deliver on their own ambitions. We are focused on challenging mindsets and driving actions to build a more sustainable future. This is more important than ever as the world looks to accelerate the transition away from fossil fuels.

Environment

We have embraced the adoption of the Task Force on Climate-Related Financial Disclosures (TCFD) recommendations and reporting framework to help expand the environmental aspects of our sustainability agenda and effectively communicate our work in this area. We are delighted to have published our first TCFD Statement as set out on pages 18 to 27 of this report.

Whilst the impact our facilities have on the environment is relatively small, we have made great strides in reducing our carbon footprint and waste products from our manufacturing processes and facilities (Scope 1 and 2 emissions) and are committed to build on this progress. To accurately assess our overall environmental impact, and in support of the TCFD reporting framework, we have engaged with specialist advisers to confirm our Scope 1 & 2 emissions and have made good progress in mapping the contribution through our supply chain, distribution, and customer use of our products (Scope 3). Once this phase is completed, we will set our net zero targets in line with the best practice and submit these for validation from the Science Based Targets initiative.

We also recognise our role in supporting our customers to achieve their sustainability ambitions, as well as encouraging similar commitments from our supply chain. To support this, we have created ethical and environmental standards for our suppliers and partners to follow and are building broad sustainability considerations into our product development guidelines.

Social and Governance

Whilst our environmental focus is extremely important, it is only one part of our overarching sustainability agenda. We believe how we do business is as important as what we do, and this is embedded within our approach to the Social and Governance aspects of business.

Being inclusive, and creating a diverse workplace where difference is valued and people are recognised for what they bring to the team, is a core company value and a key element in delivering business excellence. Through our recruitment, employment policies and a company culture based on respect and creating a sense of belonging, we look to attract and retain a highly talented, diverse workforce.

We are committed to promoting diversity and inclusion, both on the Board and throughout the Group. In the immediate term, we are aiming to exceed 33% female representation on the Board by our AGM in July 2022, with the appointment of a further female director, with specific capabilities and experiences which meet the needs of the Board now and in the future.

Communication has also been critical to our overall success; we have invested in increasing connectivity and communication between our teams and have embraced a hybrid workplace model. This shift, along with additional investments in technology, has enabled us to increase efficiencies across our teams, provide an improved work-life balance for employees and unlock new synergies across business units and regions. It has also led to accelerated innovation and cross-business product developments which further enhance our market intimacy and improve the way in which we reach, work with, and support our customers.

You can read more about what we have done in the year in support of our social agenda beginning on page 28, and our governance activities beginning on page 31.

Summary

This report explains our commitments to being a socially and environmentally responsible business and how we have integrated this into our strategic direction. I look forward to sharing our progress against the targets set our here, as well as those we are currently finalising. Sustainability at all levels – ethical, social, environmental and economic – is critical for us to create the value and positive impact we seek to achieve. We are committed to making even greater progress this year and beyond, and I am looking forward to the next stage of our journey.

Business Overview

Oxford Instruments is a global provider of high technology products and services. It plays a critical role in the advancement of society by enabling leadin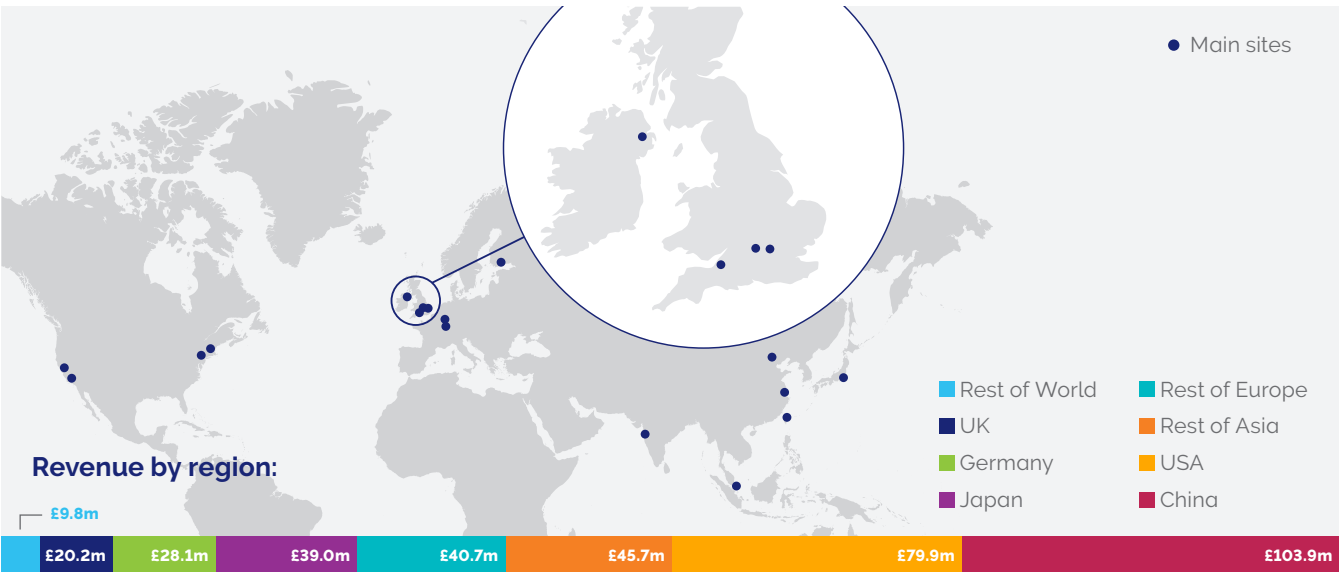g industrial companies and scientific research institutes to tackle some of the world's most complex challenges and growth opportunities.

The Group is structured across three sectors:

Materials & Characterisation
50% of Group revenue

Products and solutions that enable the fabrication and characterisation of materials and devices down to the atomic scale, predominantly supporting customers across applied R&D as well as the production and manufacture of high technology products and devices.

Research & Discovery
33% of Group revenue

Provides advanced solutions that create unique environments and enable imaging and analytical measurements down to the molecular and atomic level, predominantly used in scientific research and applied R&D.

Service & Healthcare
17% of Group revenue

Provides customer service and support for our own products.

Where we operate:

With sites around the world, we work closely with our customers to create the products they need to achieve meaningful change and growth. This is fuelled by our purpose to enable a greener, healthier, more connected, advanced society, putting us as the heart of creating a more sustainable future.

• Main sites

Rest of World	Rest of Europe
UK	Rest of Asia
Germany	USA
Japan	China

Revenue by region:

£9.8m

| £20.2m | £28.1m | £39.0m | £40.7m | £45.7m | £79.9m | £103.9m |

Our financial success is underpinned by our Horizon strategy, which drives sustainable growth and margin enhancement, while offering increased value for our customers. As a customer-centric, market driven Group, we put our customers at the heart of all we do. Building such close relationships brings us unique insight into the technical and commercial challenges faced by our customers. We then use this insight to inform our product roadmaps to ensure we can offer real solutions both today and in the future.

Our operating model:
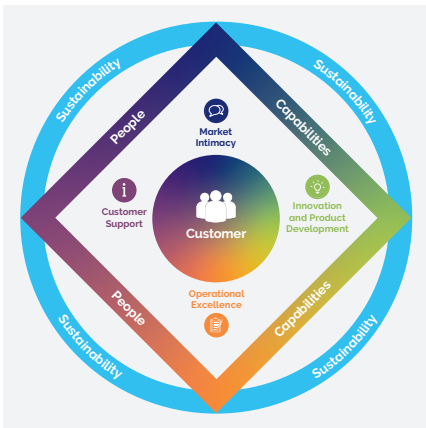
As part of our Horizon strategy, we deliberately focus on building scale and capability in specific end markets, with long-term structural growth drivers, where we can sustain leadership positions for technologies and products that create high value for our customers.

Performance in the year:

Orders
£423m
(2021: £353.7m)

Adjusted operating profit
£66.3m
(2021: £56.7m)

Revenue
£367m
(2021: £318.5m)

Operating margin
18.1%
(2021: 17.8%)

Our core markets are:

Healthcare & Lifescience
Increasing and ageing populations are driving the need for more affordable and effective therapies and treatments, with the more detailed understanding regarding fundamental disease mechanisms enabling a new paradigm in the speed and efficacy of drug development.

Semiconductor & Communications
The push for more power-efficient devices, increased connectivity and the increased demand for semiconductor chips across consumer electronics is creating opportunities for growth.

Quantum Technology
Increased national programmes and associated funding as researchers continue to make significant advances with quantum technology and the promise of practical commercial quantum technology.

Energy & Environment
Revitalisation and global recognition of dramatic changes to energy requirements and the global urgency regarding carbon emissions are accelerating the move to new energy and environmental solutions.

Advanced Materials
Where there is increased investment into new materials to enable higher and often disruptive performance, as well as demand for more sustainable use of valuable and finite natural resources.

Research & Fundamental Science
Where we help customers develop breakthrough applications, gaining previously unknown insights.

Group revenue:
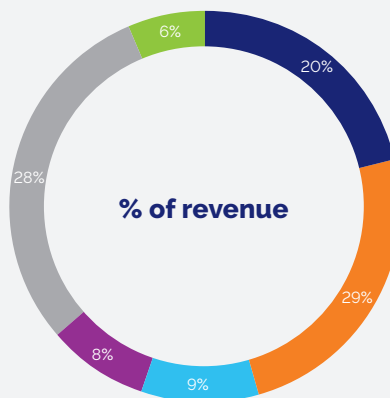
We drive proactive engagement with customers across the full technology cycle, from research to applied R&D to high volume manufacturing. This helps us maximise the returns from our core technologies whilst positioning us to benefit from rapid growth and each wave of technology disruption.

Purpose, Values and Culture

We take our role in the world seriously and recognise that how we do business is as important as what we do.

Our purpose

We have worked hard to build a progressive business culture within the organisation that is based on respect and creating a sense of belonging where difference is recognised, valued and celebrated, and people are given an environment in which they can do their best work. We also recognise the importance of remaining respectful of the cultures of the countries we operate within.

Our values are:
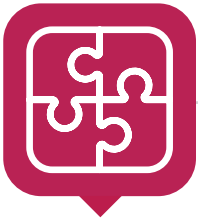
Inclusive:

By seeking out different perspectives and diverse collaboration, we deliver better solutions and lasting success.

Innovative:

Through our knowledge, expertise and focused curiosity, we create new possibilities for ourselves and for our customers.

Trusted:

We build successful, long-term relationships based on accountability, integrity and respect.

Purposeful:

We care, and our passion and commitment drive positive change in the world.

Our Culture

We have worked hard to build a progressive business culture within the organisation that is based on respect and creating a sense of belonging where difference is recognised, valued and celebrated, and people are given an environment in which they can do their best work. We also recognise the importance of remaining respectful of the cultures of the countries we operate within.

Being Oxford Instruments

Employee Pride
in working for us and making a difference

Health and Safety
ensuring everyone is safe

Care
we care about our employees, our customers and our impact on the world

Reputation
for positive contribution to society

Sustainable
taking our role seriously as we progress our environmental, social and governance agendas

Respect
being inclusive and valuing our employees

Trust
our people to deliver

Accountability
for our actions

Our cultural KPIs

We monitor our culture by assessing, amongst other things, feedback received from our global employee engagement surveys. This year we have also instigated CEO Townhalls that all employees are invited to and where they are encouraged to ask questions and comment on what they believe. Carefully considering employee feedback and views helps us to identify the areas in which we may need to take action to ensure that we enhance or preserve our culture.

During the year, we monitored progress across a range of cultural KPIs:

98%
of new starters say we're friendly and welcoming

25%
female workforce

43%
of staff work outside the UK

92%
of employees feel trusted to do a good job

8,308
online training courses completed

85%
of employees proud to work at Oxford Instruments

Sustainability Structure and Strategy

Our values underpin all that we do, from how we work with each other, how we support our customers to how we trade with suppliers.

In the years ahead we will strive to expand both our reporting and the extent and detail of our sustainability targets. We aim to be ambitious and see no contradiction between our commitment to highly competitive financial and operational results whilst delivering on our responsibilities to society, our stakeholders and workforce. We see these as part of the same company strategy and our sustainability ambition as a competitive differentiator for us as the energy transition and other societal changes advance.

As regards the division of responsibilities between the Board and all of its committees in relation to the many topics comprising the sustainability agenda, we have struck a balance between giving the new Sustainability Committee a broad remit and maintaining the specialised responsibilities which the other committees have. On health and safety, whilst these matters will be considered by the Sustainability Committee in more depth, due to the important nature of this topic high level oversight will nevertheless be retained by the Board. In the area of company culture, the Sustainability Committee will consider diversity alongside the topics of inclusion and belonging.

Our **environment** sustainability agenda comprises the following key subject areas:

- Energy & emissions
- Water & waste
- Transport
- Environmental Directives
  - Streamlined Energy and Carbon reporting (SECR) regulations
  - Task Force on Climate-Related Financial Disclosures (TCFD)

Our **social** sustainability agenda comprises the following key subject areas:

- Diversity, inclusion and belonging
- Health, safety and wellbeing
- Investing in our people
- Next generation talent
- Community impact

Our **governance** sustainability agenda comprises the following key subject areas:

- Anti-Bribery and Anti-Corruption
- Sanctions, Export Control and Customs
- Dissemination of Inside Information to the Market and Share Dealing
- Supply Chain Responsible Sourcing
- Human Rights and Modern Slavery
- Intellectual Property and Confidentiality
- Data Protection, Data Privacy and Data Security
- Financial Sustainability and Tax Transparency

Later in this report we will outline our approach in each of these areas, describing the key policy points and what we want to achieve. A list of applicable group policies in these areas is included on page 32. We will propose some key targets for these areas, where applicable, and the measures we will use to manage progress against these targets.

Aligning with the UN's Sustainable Development Goals

We recognise the role we, and our technologies, can play to create a positive impact on the environment and society and, in line with our values and purpose, we are passionate about being a positive influence on the world around us.

One way we do this is through our support of the UN's Sustainable Development Goals (SDGs), which were designed to act as a blueprint to achieve a better and more sustainable world for all. While we support all 17 SDGs, we have specifically aligned ourselves with several key goals in those areas where we have the most potential to influence and shape a sustainable future.

We have approached this from two angles: the first is the impact our products can make to support key goals, and the second is how we, through our values, governance and our value chain, can help deliver on the goals.

Our Products

Our solutions are being used by customers to find cures for cancer, develop more efficient means of capturing and distributing cleaner energy, advance space exploration and develop the next generation of electronics, advanced materials and quantum technologies to aid in advanced healthcare, help address climate change and enhance scientific research.

Our products can contribute towards the following goals:

3 GOOD HEALTH AND WELL-BEING	Good health and wellbeing
7 AFFORDABLE AND CLEAN ENERGY	Affordable and clean energy
9 INDUSTRY, INNOVATION AND INFRASTRUCTURE	Industry, innovation and infrastructure

Our Values

We recognise that how we do business is as important as what we do. Internally, we work to minimise the environmental footprint of our operations, products and services, while investing in our employees to create an inclusive culture where they can be their authentic self, are kept safe and where they are able to develop their career. Externally, we work collaboratively with our customers and suppliers to align our sustainability approaches and provide key enabling technologies to benefit and advance society.

How we run our business and the actions we take throughout our value chain offer support against the following goals:

5 GENDER EQUALITY	Gender equality
6 CLEAN WATER AND SANITATION	Clean water and sanitation
8 DECENT WORK AND ECONOMIC GROWTH	Decent work and economic growth
9 INDUSTRY, INNOVATION AND INFRASTRUCTURE	Industries, innovation and infrastructure
12 RESPONSIBLE CONSUMPTION AND PRODUCTION	Responsible consumption and production
16 PEACE, JUSTICE AND STRONG INSTITUTIONS	Peace, justice and strong institutions

Case Studies

Enabling a **greener** economy

The World Health Organization has said climate change is the greatest threat to global health in the 21st Century. Since the 1800s, human activities have been the main driver of climate change, predominantly through the burning of fossil fuels. We have all seen or experienced the impact this is having on the world: increased flooding, extreme heat, and food and water scarcity. With a global commitment to achieve net zero, reducing carbon emissions to the lowest level possible, by 2050, there is increasing pressure on everyone to phase out the use of and reliance on fossil fuels.

The challenge, however, is finding alternative energy sources that offer the same performance capabilities, and while fossil fuels remain plentiful and inexpensive it can be difficult for many to make the transition. One widely available alternative is solar energy, with the level of solar energy reaching habitable land being 1,000 times the amount of fossil fuel energy extracted globally per year. The problem is finding a way to capture, convert, store and distribute this energy efficiently and affordably.

Solar panels offer the solution, with researchers looking at how to make these more efficient and cost effective. Our enabling technologies, including our material analysis tools, are helping manufacturers and researchers image and analyse solar cells to understand how composition impacts performance, allowing them to design enhanced capabilities into the cells. Our products offer users unique insight as their sensitivity provides visualisation with minimal damage to the sample, letting them analyse solar cell details that were previously impossible to capture.

Batteries offer a further alternative to fossil fuels and can facilitate more sustainable travel, as well as providing efficient and affordable storage for renewable energy. Batteries require less maintenance and run cleaner than traditional fuel convertors, however they must overcome a few challenges before they can fully permeate the transport market. This includes making them lighter, more cost effective and more energy efficient in regard to discharge and recharge times.

Our atomic force microscopes (AFM), nuclear magnetic resonance (NMR) and material characterisation solutions are being used by many battery manufacturers to help them understand more about the properties of batteries at the nanoscale and how these change over the lifetime of a battery. This is helping researchers find new battery materials and structures that could translate into lower cost, higher performing, more environmentally friendly solutions. By being close to our customers we have been able to stand out in the market with a tailored portfolio of solutions dedicated to the specific needs of the battery market.

We continue to look for further opportunities to offer solutions that can help those working to accelerate our transition to a low-carbon economy.

Increasing **connectivity**

The essential nature of connectivity and communication is such that many can no longer imagine life without it; it has become an integral part of working, retail, healthcare, logistics and education.

In line with this, we currently find ourselves in the middle of a technology boom, considered by many to be the next industrial revolution. As technology advances, connectivity is driving personal, social and economic development and the UN has gone so far as to propose having access to internet services should be a part of our human rights. This industrial transformation is being powered by constant connectivity, which demands 24/7 access to high-speed internet, changing how we live, learn, work and play.

Together, the advancement of technology and the drive for connectivity is driving an unprecedented increase in demand for semiconductor chips, to enhance electronics and provide faster, more accessible bandwidth to ensure ultimate performance from the products.

The range of semiconductor applications is poised to expand dramatically with the spread of 5G, advances in the Internet of Things (IoT), autonomous driving and neural sensors. Devices themselves range from phones and tablets through to washing machines and cars. It is expected that the number of devices that can connect through the IoT will reach 22 billion by 2025. The world is increasingly mobile, as we consume and generate more data every year.

The result of more people trying to connect at once and the increasing amount of data being transferred is a need for faster, more stable and secure networks. The onus is on data centres to meet these requirements as well as on device manufacturers to make products that can help people shape their activities to improve their quality of life.

The huge demand for connectivity is driving demand for our specialised analysis solutions and our compound semiconductor processing systems. As silicon semiconductor chips become smaller, analysis becomes more challenging and the ever more important our tools become. The precision and resolution of our products are clear differentiators for us, making us the supplier of choice for many leading electronic device manufacturers.

Our defect review tools are helping manufacturers during the quality assurance and quality control stage, providing insights into possible performance enhancements for next generation devices. Customers choose us as we ensure their processes deliver the required performance, as well as driving manufacturing efficiency and reducing costs.

Thanks to the relationships we build with our customers, we understand the challenges they face, including increased demand for compound semiconductors which needs improved manufacturing capabilities and higher production yields. Here our specialised processing systems and critical layer solutions are making a positive impact on end device performance, driving down costs and increasing yields. Our solutions are being used to produce high performance indium phosphide devices to help build reliable and fast fibre optic networks supporting the rise in 5G and cloud applications, and the resulting amount of data being produced. Customers choose our products as we can offer significant advantages for them, such as delivering more devices per wafer, improved yield, and enhanced device performance for the end user.

Case Studies **continued**

Improving
health

By 2050 it is estimated that the global population will have reached nearly 10 billion, with 16% being aged over 65. Growth in age and population in turn increases the number of people living with chronic health conditions, which results in greater pressures on the healthcare system. One way to ease the pressure is by transforming the efficacy of medicines and treatments through developing a better understanding of health and disease at a cellular and molecular level.

Our microscopy solutions are often chosen by researchers working to garner a fundamental understanding of diseases such as cancer, Alzheimer's, diabetes and cystic fibrosis. Building on our market intimacy we have enhanced our offerings to better meet the specific needs of researchers in this field. For example, we offer imaging capabilities for larger samples in an easy-to-use platform, which was previously unavailable in the market. The sensitivity of our systems is also revealing previously unseen details that show cellular response to stimuli, such as difficult treatment options.

Using these unique insights to build a fuller picture of disease mechanisms, we can help accelerate the speed of drug development. Measuring indications can guide what treatments may, or may not, work, improving the efficacy of medicines and reduce development costs.

Currently it costs around £1.5 billion to bring a single drug to market, and only one drug in 5,000 gets there. The huge development costs result in prohibitively expensive medications or even barriers to their developments for some illnesses. A disease can also vary between patients with the same condition and medications also have a different success rate across patients as well. Currently all patients with a certain condition receive the same initial treatment, even though it may only be 30%-60% effective. This means patients require medical assistance for longer periods of time, putting pressure on healthcare providers, or they are suffering more with a condition than others, impacting their quality of life.

Personalised medicine will help address these issues and is becoming more of a reality. Building on the insights researchers have gathered, the use of gene sequencing is helping unlock insight regarding the individual patient, allowing doctors to develop a treatment plan that will work best for them. The ability of our cameras to capture fine details very quickly is helping researchers use gene sequencing to reveal more about likely responses to different treatment options. This will enable doctors to treat patients more successfully and help reduce spend on ineffective medications.

Making leaps in scientific **understanding**

Edward Teller famously stated that the science of today is the technology of tomorrow. Another way to think of this is that today's curiosity is tomorrow's cure. Many of our everyday essentials would have been considered impossible even a decade ago, but through fundamental science researchers have been able to solve some of the most important challenges the world has faced.

Over the past 200 years there has been a huge rate of change, driven largely by the application of fundamental science to aid economic, social and technological progress. By exploring the limits of what's possible, researchers have created new understanding and pushed boundaries to explore ideas, test them and expand them, helping to generate the solutions for everyday life, as well as provide answers to some of the great mysteries of the universe. As scientific understanding drives advances in technological capabilities, this in turn can help facilitate new scientific breakthrough and discoveries, a truly virtuous circle.

Our products are helping researchers make these step-change advances, helping to progress a broad range of application areas. It is through the use of our cryogenic refrigerators that we have aided the continued development of quantum technology, helping researchers build quantum computers and supporting the commercialisation of this field. By working closely with our customers to understand their changing needs, we can ensure our products can best support them and anticipate their requirements.

Our advanced solutions are helping researchers to explore and understand the realms of nuclear fusion, which has the potential to influence next generation materials and provide abundant carbon-free electricity. Thanks to the heightened speed of our products, we can capture what happens in minute fractions of a second, which is key to unlocking nuclear fusion.

Astronomers often choose our high sensitivity scientific cameras to aid their understanding of the world around us, as well as the universe at large. Our cameras are favoured because of their unrivalled speed, extra large field of view and excellent sensitivity. One recent project is helping facilitate optimal alignment of the mirrors within the Extremely Large Telescope in Chile, which will help reveal details of the birth of the earliest stars and galaxies. This will help answer many of the most pressing, unsolved questions about our universe, which will help us understand more about the earth, the probability of other life-sustaining planets, and possible approaches that could help us address the climate change crisis.

Environment

Whilst we are proud to be recognised as the leaders in what we do and for the positive impact our products make in the world, we understand the need to minimise our own environmental footprint.

Environment

The Group has continued on its journey to understand the environmental footprint of its operations, products and services, recognising the ongoing threat climate change plays to the world. To ensure we have an accurate view of this, we have widened our scope of monitoring to capture all our sites and offices. Previously, our smaller offices with low emissions were excluded from our measures. However we recognise that in order to ensure we address our full impact, it is essential all our operations are considered. We have stated this year's numbers to cover our full operating base.

Building on the continued engagement of our employees for the environment, we have continued to empower our Go Green committees across our sites to help us further embed sustainability throughout the Group. The support of our employees with our focused efforts has enabled us to make excellent progress in continuing to understand and manage our CO_2 emissions and continue to reduce the amount of waste products generated at our manufacturing sites, facilities and activities.

This year we have embraced the adoption of the TCFD reporting framework, utilising it to further expand our green agenda and taking the opportunity to demonstrate the importance of this by reporting our progress. Working with external advisers, we have confirmed our Scope 1 and 2 (direct and indirect) emissions and are making good progress in mapping the wider indirect impact we have through our supply chain, distribution network and customer use of our products (Scope 3).

In support of our ambitions, we have updated the environmental policy that is implemented at all our sites. This commits the Group to achieving net zero emissions through significantly reducing our environmental footprint and the continuous monitoring and improvement of our activities that contribute to climate change.

Our strategy includes continued energy savings, efficient energy usage, the choice of our supply chain partners as well as the adoption of new technologies and systems as they become available.

Energy and emissions

As previously mentioned, this year we have widened our scope of energy monitoring, which improves our understanding of our carbon footprint. It has increased the reported energy consumed but demonstrates how serious we are about reaching our net-zero target ahead of 2050. Our latest acquisition, WITec, is also included in our figures for this year and we have also seen an increase in consumption relative to last year as more of our staff return to the office after working from home during covid.

On a like-for-like basis, we have retained a significant reduction on emissions based on our pre-pandemic levels. We have maintained supply of 100% renewable electricity consumed by our manufacturing activities. We continue to look at ways to reduce our fossil fuel consumptions, which now primarily come from our smaller facilities.

Oxford Instruments consumed a total of 14.94 GWh of energy globally during 2021/22. This figure consisted of 11.40 GWh of electricity (2020/21: 10.01 GWh), 2.43 GWh of gas (2020/21: 1.27 GWh), 0.53 GWh of oil (2020/21: 0.570 GWh), 0.22 GWh of district heating (2020/21: not measured), 0.007 of LPG (2020/21: not measured), 0.35 GWh of car fuel and 0.01 GWh of grey fleet (2020/21: car fuel and grey fleet reported together – 0.19GWh) .

With the drive to improve accuracy by including all our facilities for the first time, this year we have an increase in energy consumption. This has resulted in our intensity metric increasing to 40.67 MWh per £m of revenue (2020/21: 37.17 MWh).

The Group's Scope 1 and 2 global carbon footprint for 2022 increased to 1,476.1 tCO_2e from 520.06 tCO_2e in the previous year. Again, this increase reflects the increased scope of our reporting, an acquisition, the return of staff to our offices who were working from home, and the wider recommencement of business travel.

Water and waste

While we measure our water usage, the level is minimal and not material so has been excluded from this report. We have also included our use of hydrofluorocarbons. Three of our main manufacturing sites are zero waste to landfill, where our waste is recycled either directly or indirectly, for example general waste being used to generate electricity at dedicated incinerator sites.

Transport

Our transport-related emissions continue to be a large contributor to our emissions, which, in the previous year, was significantly reduced due to covid-related restrictions and our adoption of new ways of working. With the global recovery and the increased ability to travel our transport emissions have increased, which is to be expected given the restricted travel in the previous year. We remain committed to utilising the hybrid workplace model utilising digital and remote communications to help us reduce our ongoing travel requirements.

Air travel equated to around 6 million km, with the air travel carbon equivalent to 947.45 tCO_2e.

Air travel 2021/22	=	5,980,961.21 km (2020/21: 900,074 km)
Carbon equivalent	=	947.45 tCO_2e (2020/21: 130.31 tCO_2e)

Car fuel

The car fuel figures are drawn from fuel card and business mileage expense claim records and these totalled 35,361 litres of fuel used in the last year.

UK car fuel	=	35,361 litres
Carbon equivalent	=	84.4 tCO_2e

Electricity consumption as carbon

Type of emissions	2021/22 tCO_2e	2021/22 % of total	2020/21 tCO_2e	2020/21 % of total	% difference in emissions
Direct (Scope 1)	666.7	45.2%	379.8	73.0%	76%
Indirect (Scope 2)	806.1	54.6%	140.8	27.0%	473%
Scope 1 and 2 Total	1,472.7	99.8%	520.6	100.0%	183%
Fuel directly purchased by the Company (Scope 3)	3.4	0.2%	—	—	—
Indirect other (Scope 3) Total	3.4	0.2%	—	—	—
Total gross emissions (tCO₂e)	**1,476.1**		520.6		184%
Intensity ratio: Scope 1 and 2 tCO₂e per GBP £m turnover	**4.01**		1.63		145%
Energy consumption used to calculate Scope 1 and 2 emissions /kWh	**14,937,971**		11,850,000		26%

Our total carbon footprint for April 2021 to March 2022 is as follows:

Type of emissions	Activity	Emissions (tCO₂e)	% of total
Direct (scope 1)	Natural gas	444.9	30.1%
	Gas oil	136.6	9.3%
	LPG	1.7	0.1%
	Owned vehicles	80.9	5.5%
	Refrigerant	2.5	0.2%
	Subtotal	**666.6**	**45.2%**
Indirect energy (scope 2)	Purchased electricity	798.5	54.1%
	Purchased district Heating and steam	7.6	0.5%
	Subtotal	**806.1**	**54.6%**
Indirect other (scope 3)	Fuel directly purchased by the Company	3.4	0.2%
	Subtotal	**3.4**	**0.2%**
Total emissions (tCO₂e)			**1,476.1**
Energy consumption used to calculate emissions (kWh)			**14,937,971.0**
Intensity ratio: Tonnes of gross CO₂e per million GBP turnover			**4.01**

Environment continued

Environmental Directives

The Group is working to ensure it complies with all environmental legislation in countries where it operates. This includes European Directives such as:

- Waste Electronic and Electrical Equipment (WEEE) Directive – compliance achieved in the UK by membership of B2B Compliance – an authorised compliance body. Other compliance bodies are contracted for our European operations.

- Restriction on use of certain Hazardous Substances (RoHS) regulations – all products that were within scope and were sold into Europe since July 2017 complied with these regulations. Some of our products are outside of the RoHS scope or are covered by exemptions.

- Registration, Evaluation, Authorisation of Chemicals (REACH) Directive. All sites are working towards compliance via their supply chains.

- European Waste Framework Directive. This requires the Company to enter data on parts and products that may contain Substances of Very High Concern (SVHC) into a database being set up by the European Chemical Agency (ECHA). This is known as the SCIP database and businesses are currently engaged in determining what should be entered into the database to ensure compliance.

Streamlined Energy and Carbon Reporting (SECR) regulations

This year, for the first time, we have engaged with an external consultant to produce a separate report for SECR compliance. Please see The Streamlined Energy and Carbon Report, which can be found on our website in our sustainability section: **oxinst.com/sustainability**

SECR responsibility and methodology

Our environmental lead within the Leadership Team is responsible for collating energy data, providing this to our external advisers, and reporting to the Board on an annual basis. Working with our external advisers, the lead is responsible for compiling the SECR report to submit to senior management for sign off.

Data collected for compiling the SECR report is gathered by various methods, including submetering, direct meter readings, and direct readings from energy bills.

SECR carbon intensity measure from energy use

Oxford Instruments has a statutory duty to report greenhouse gas emissions as tonnes of carbon dioxide equivalent (tCO_2e). The Company's chosen carbon intensity measure for energy use is tonnes of carbon dioxide equivalent (tCO_2e) per £m of revenue.

Our total carbon footprint for April 2021 to March 2022 can be found on the previous page.

The data from the SECR report for 2021/22 gives an emissions ratio for energy of 4.0 tCO_2e/£m of revenue (2020/21: 1.6 tCO_2e/£m). The UK Companies Act 2006 (Strategic Report and Directors' Report) Regulations require the SECR report to be included as part of the Directors' Report in the Report and Financial Statements.

We continue to use renewable energy where it is available with a goal of moving all our consumption to renewable energy in our journey to net-zero. All of our manufacturing sites are now powered by renewable energy, which reduced our carbon footprint by over 2000 tCO_2e in the last year.

Beyond SECR

We remain committed to being net zero well ahead of 2050. The business is currently analysing our options for net-zero while looking to the Science Based Targets initiative (SBTi) to further validate our roadmap to net-zero over the next financial year.

TCFD report

Task Force on Climate-Related Financial Disclosures (TCFD) Statement for the year ended 31 March 2022

Introduction

We believe that our sustainability ambition is a competitive differentiator for us as the energy transition and other societal changes advance, and are enthusiastic about embracing the environmental, social and governance considerations essential to running a modern business.

Having been on our sustainability journey for many years, we have developed a strong track record of delivering against our sustainability-related objectives, such as reducing the CO_2 emissions and waste products from our manufacturing processes and facilities.

Within our focus on environmental matters, we are committed to expanding both our reporting and the detail of our various targets, whilst also working to align these with best practice such as that of the Science Based Targets initiative (SBTi). Having previously stated that we aspire to reach Net Zero ahead of 2050, we aim to be ambitious in the new targets that we set during the following financial year, and as we develop our low carbon transition plan to help us to reach this goal.

Progress roadmap

A snapshot of our journey so far, our progress during the latest financial year and our action plan for the year ahead, are summarised in the table below.

Prior to FY22	Progress during FY22	Focus for FY23
• Established a "Go Green" committee at each site to deliver a local environment agenda and promote positive behaviours. • Invested in sustainable infrastructure and renewable technology including the energy efficient design of our new Plasma Technology facility and solar panels on our X-Ray Technology site. • Converted three manufacturing sites to become zero waste to landfill, with the business units on these sites representing approximately 60% of Group revenue in FY20/21. • Confirmed our aspiration to reach Net Zero ahead of 2050.	• Maintained 100% renewable electricity across our UK manufacturing activities, with the applicable business units representing approximately 85% of Group revenue in FY21/22. • Reduced our CO_2 emissions by 48% from 2,844 tCO_2e to 1,476 tCO_2e, between FY18/19 and FY21/22. • Further reduced the volume of waste to landfill. • First year reporting on our work to align with the recommendations of the Task Force on Climate-Related Financial Disclosures (TCFD). • Commenced full Scope 1, 2 and 3 emissions assessment and calculation for the latest financial year and for 2018 (our baseline year).	• Set new, ambitious targets to reach Net Zero before 2050. • Complete full Scope 1, 2 and 3 emissions assessment and achieve science-based target validation through the Science Based Targets initiative (SBTi). • Progress contracting of renewable electricity across our non-UK sites. • Complete our first Carbon Disclosure Project (CDP) submission. • Engage in and build upon quantitative climate scenario analysis as part of TCFD alignment. • Progress with zero waste to landfill at our remaining UK site. • Work with Board and Sustainability Committee to develop our abatement strategy and to consider the offsetting options for residual emissions.

TCFD report continued

Compliance statement

As we are a premium listed company, we have reported on a 'comply-or-explain' basis against the TCFD framework. Our TCFD report is included in full in our Report and Financial Statements 2022 which can be found on our website in our sustainability section: **oxinst.com/ sustainability.**

In line with the requirements of the Financial Conduct Authority's Listing Rule 9.8.6(8)R, we note that our disclosures in respect of the financial year ended 31 March 2022 are not fully consistent with the recommendations and recommended disclosures of the TCFD.

The below table summarises our compliance per the disclosures made in this report.

As noted earlier, we are committed to expanding our reporting in this area. Throughout our dedicated TCFD report, we have endeavoured to explain why our disclosures are not yet fully consistent with the recommendations and recommended disclosures of the TCFD, to explain the steps we are taking or plan to take to be able to make consistent disclosures in the future and the timeframes for doing so (where applicable).

We have also embedded cross-references to the various sections of our Report and Financial Statements where additional relevant information can be found.

In determining whether our climate-related financial disclosures were consistent with the TCFD recommendations and recommended disclosures, we undertook a detailed assessment of those disclosures which took into account the applicable guidance referenced under Listing Rule 9.8.6BG.

TCFD pillar	Recommended disclosure	Compliance
Governance: Disclose the organisation's governance around climate-related risks and opportunities.	a. Describe the Board's oversight of climate-related risks and opportunities.	Partial compliance
	b. Describe management's role in assessing and managing climate-related risks and opportunities.	Partial compliance
Strategy: Disclose the actual and potential impacts of climate-related risks and opportunities on the organisation's businesses, strategy, and financial planning where such information is material.	a. Describe the climate-related risks and opportunities the organisation has identified over the short, medium, and long term.	Partial compliance
	b. Describe the impact of climate-related risks and opportunities on the organisation's businesses, strategy, and financial planning.	Partial compliance
	c. Describe the resilience of the organisation's strategy, taking into consideration different climate-related scenarios, including a 2°C or lower scenario.	Not compliant
Risk management: Disclose how the organisation identifies, assesses, and manages climate-related risks.	a. Describe the organisation's processes for identifying and assessing climate-related risks.	Partial compliance
	b. Describe the organisation's processes for managing climate-related risks.	Partial compliance
	c. Describe how processes for identifying, assessing, and managing climate-related risks are integrated into the organisation's overall risk management.	Not compliant
Metrics and targets: Disclose the metrics and targets used to assess and manage relevant climate-related risks and opportunities where such information is material.	a. Disclose the metrics used by the organisation to assess climate-related risks and opportunities in line with its strategy and risk management process.	Not compliant
	b. Disclose Scope 1, Scope 2, and, if appropriate, Scope 3 greenhouse gas emissions, and the related risks.	Partial compliance
	c. Describe the targets used by the organisation to manage climate-related risks and opportunities and performance against targets.	Not compliant

To successfully evaluate and respond to the challenges and opportunities posed by climate change, we recognise the importance of fostering knowledge of climate change issues across the business, supported by effective governance.

Governance

The Board has ultimate responsibility for the oversight of climate-related issues and is supported by its committees, the Management Board and the wider senior leadership team. During the year, the Board established a formal Sustainability Committee, comprising all of the Non-Executive Directors and with particular accountability for assessing and reporting to the Board on progress against the targets to be set to address climate-related issues as part of its core business. With reference to the organisational structure set out on page 93, climate-related considerations are embedded throughout our governance structure, at Board level and across the organisation.

During the year, the Board devoted time to developing its understanding of climate-related issues. Through its quarterly Audit and Risk Committee, they considered our climate-related risks and opportunities and liaised with the Head of Internal Audit and Risk to fully understand the methodologies used to determine these. Across each of its meetings since its establishment, the Sustainability Committee held dedicated sessions with the Chief Executive, Management Board and our external consultant, on climate-related topics such as the Greenhouse Gas Protocol, SBTi, CDP, UN Sustainable Development Goals and the TCFD Disclosure framework, amongst other things. They also debated the pathway to achieving Net Zero, including determining appropriate targets and best practice guidance as regards abatement and offsetting activities.

Outside of formal meetings, the Chair of the Sustainability Committee worked directly with various members of the management team and our external consultant and reported back to the Board regarding the insights gained. The Board and its Committees will, through continued education and sharing of information, aim to stay abreast of developments concerning climate change and other environmental issues.

The Board and its Committees have considered climate-related issues throughout the year, with such matters forming part of the discussions in a range of areas including the Company's strategy. The Board has explicitly delegated responsibility to its Sustainability Committee on a number of environment-related issues, including asking that they: consider and recommend to the Board for approval, sustainability-related targets, including environmental targets and timescales; review the Company's progress towards decarbonisation of energy use globally and consider and recommend to the Board for approval, the methodology to be used for achieving Net Zero. Climate-related risks and opportunities have also been considered and discussed by the Audit and Risk Committee, with their feedback being used by the internal team to refine their risk and opportunity identification methodology.

During the next financial year, the Sustainability Committee intends to consider, and recommend to the Board for approval, sustainability-related targets, including environmental targets and timescales, as well as a low carbon transition plan.

This is in line with the duties delegated to the Sustainability Committee by the Board, per its formal terms of reference. It is anticipated that progress against these goals will be considered as a standing item at Sustainability Committee meetings going forward.

We make a conscious effort to ensure that our Management Board are well informed regarding climate-related issues. During the year, the team increased their familiarity with a broad range of topics including the Greenhouse Gas Protocol, Streamlined Energy and Carbon Reporting Regulations, CDP, UN Sustainable Development Goals, the TCFD Disclosure framework and steps toward determining our Net Zero targets. This equipped the Management Board to meaningfully discuss a range of climate-related issues at their regular, formal meetings, including potential carbon-related targets and the Company's environmental headline strategy.

In addition to internal engagement led by the Head of Internal Audit and Risk, we also invited our external consultant to facilitate a dedicated climate-related risk and opportunities workshop for a broader range of colleagues in various functional and operational roles across the Group, in order to ensure that they had the necessary depth of understanding in order to contribute to this workstream in a meaningful way.

TCFD report continued

We recognise that climate-related risks and opportunities could potentially have a significant impact on our business model and strategy, both positive and negative.

Strategy

We recognise that climate-related risks and opportunities could potentially have a significant impact on our business model and strategy, both positive and negative. Our initial focus has been on the identification and evaluation of key climate-related risks and opportunities, including understanding the impact of the risk or opportunity in terms of its time horizon, likelihood, magnitude and the stakeholders or areas of the business which it may affect, as well as the current controls in place to manage the risk or the mechanisms in place to capitalise on opportunities.

During FY 23, we will work to prioritise the actions needed to mitigate these risks and capitalise on the opportunities, basing this on their impact and ease of implementation. We will then integrate these actions into our strategy to ensure we have the appropriate focus on this area.

This will also help to inform our climate scenario analysis during the coming year. During the year we have worked with colleagues from a range of functional and operational roles across the Group to identify existing and emerging climate-related risks and opportunities. Having performed this evaluation, we consider climate change to be a principal risk.

We consider climate-related risks and opportunities across the short, medium and long term, defined as:

Impact time horizon	Year from	Year to	Duration
Short-term	2022	2030	<10 years
Medium-term	2030	2050	10-30 years
Long-term	2050	2100	30+ years

Climate Scenario Analysis

With the support of our external consultant, we are conducting a qualitative Climate Scenario Analysis to help to further develop our understanding of climate-related physical and transition risks and opportunities in light of a range of climate change scenarios, which could impact our business in the future.

We are now working to determine the appropriate methodology and modelling tools to be used to complete this exercise and note that the approach may comprise stakeholder engagement and the prioritisation of climate-related risks and opportunities which may require deeper analysis via quantitative modelling and ultimately support our understanding of the resilience of our low carbon transition plan under different climate change scenarios.

The outcomes from the Climate Scenario Analysis will be considered as part of our process for the assessment of climate change related risks and will support our future climate-related financial planning.

Risk management

We define risk as uncertain events which could have an adverse impact on the Group's business model, financial performance, liquidity or reputation. Our approach to identifying and assessing risks and opportunities is set out in detail in the Risk Management section on pages 77 to 84 of the Report and Financial Statements 2022.

During the year, we ran a separate process for the identification and assessment of climate change related risks, distinct from the wider enterprise risk management process.

This helped us to focus on identifying a wide range of existing and emerging climate-related risks and opportunities which may impact our business.

Climate-related risks are identified and assessed in line with our standard enterprise risk management methodology as set out in the Risk Management section on pages 77 to 84 of the Report and Financial Statements 2022, albeit adapted to ensure that the nuances required by the TCFD reporting framework are captured.

When assessing climate-related risks, we consider both the impact and likelihood of occurrence across short, medium and long-term impact time horizons, as defined above. This provides an inherent risk score which is then used to rank our risks.

Impact

Rating	Financial impact (risk or opportunity)	Transitional (2°C change)	Physical (4°C change)
Severe	More than £2m	• Complete relocation of manufacturing • Significant change in supplier base • Change in technology due to supply constraints	• Relocation of facilities due to flood, excess heat or wildfires • Potential for product obsolescence plus new markets and opportunities as the paradigm shift required to deal with extremes of climate change drives the emergence of new or disruptive technologies (e.g. photocatalytic water splitting) that previously might not have been commercially viable
Major	£1m – £2m	• Investment in infrastructure required, for example in relation to additional cooling, water supply or power • Significant change in supplier base	• Increased severe weather causing continued disruption • Multiple changes in supplier • Loss of customers due to global changes
Significant	£500k – £1m	• Relocation of sales offices to another country • Changing of suppliers	• Investment in infrastructure required, for example in relation to additional cooling, water supply or power • Significant change in supplier base
Notable	£100k – £500k	• Additional investment infrastructure to manage global change	• Relocation of sales offices to another country • Changing of suppliers
Insignificant	Less than £100k	• Minor relocation of personnel • Update of company fleet to electric vehicles	• Relocation of sales offices within same country • Changing of minor suppliers

TCFD report continued

Risk management continued

A process for the assessment and management of climate-related risks and opportunities across all business units and regions has been established and mirrors the process that the Group uses for wider enterprise risk management. It will now be carried out on a quarterly basis ahead of being reported to the Board via its Audit and Risk Committee. As with wider enterprise risks, the Board as a whole is responsible for determining how risks are to be managed.

Climate-related risks and opportunities

Risks and opportunities are evaluated against a scoring matrix of likelihood and impact. Likelihood considers the probability of the risk or opportunity occurring whilst impact evaluates the magnitude of the potential consequences, whether in financial, reputational or other terms. This mirrors the process that the Group uses for wider enterprise risk management. As a result, climate-related risks are evaluated on a consistent basis with other risks.

The guidance used when assessing impact and likelihood are as set out below and the ratings are aligned to those used as part of our wider enterprise risk management process.

Likelihood

Likelihood	Description
Highly unlikely	< 10% likelihood that the risk/opportunity will occur with 2°C/4°C climate change
Low	10%-20% likelihood that the risk/opportunity will occur with 2°C/4°C climate change
Moderate	20%-50% likelihood that the risk/opportunity will occur with 2°C/4°C climate change
Highly likely	> 50% likelihood that the risk/opportunity will occur with 2°C/4°C climate change

Climate-related risks and opportunities are characterised in the terms set out below.

Physical risks

Physical risks stemming from severe weather events (acute), such as increased heatwaves, storms and floods, or long-term changes (chronic) in climatic conditions (rainfall patterns, average temperatures) can cause severe damage and disruption to companies' operations and supply chain and generate increased product prices.

- **Acute physical risks** – Those that are event-driven, including increased severity of extreme weather events, such as cyclones, hurricanes or floods.

- **Chronic physical risks** – Longer-term shifts in climate patterns (e.g. sustained higher temperatures) that may cause sea level rise or chronic heatwaves.

Transition risks

With increasing scrutiny of company climate strategies, and as global Net Zero target setting continues, we are seeing market-related, regulatory and reputational risks develop.

- **Technology risk** – Technological improvements or innovations that support the transition to a lower-carbon, energy-efficient economic system can have a significant impact on organisations.

- **Market risk** – Whilst the circumstances in which markets could be affected by climate change are varied and complex, one of the major ways is through shifts in supply and demand for certain commodities, products and services as climate-related risks and opportunities are increasingly considered.

- **Policy and legal** – Policy actions that attempt to constrain actions that contribute to the adverse effects of climate change or policy actions that seek to promote adaptation to climate change.

- **Legal actions** – Recent years have seen an increase in climate-related litigation claims being brought before the courts by property owners, municipalities, states, insurers, shareholders, and public interest organisations.

- **Reputation risk** – Climate change has been identified as a potential source of reputational risk tied to changing customer or community perceptions of an organisation's contribution to or detraction from the transition to a lower-carbon economy.

The risks and opportunities which we consider to be most relevant for us at present are set out below.

Climate-related risks		
Price inflation from decarbonisation (Transition: Market)	**Component obsolescence due to regulatory changes (Transition: Policy and legal)**	**Severe event disrupts global supply chains (Acute physical)**
Context Global supply chains implementing more expensive production methods and/or changes in raw materials in order to reduce CO_2 emissions.	**Context** Ban on critical materials or production processes in either our own operations and/or our supply chain as a result of regulatory changes.	**Context** Flooding and/or other natural disasters linked to climate change could lead to shortages in the global availability of key components.
Risk impact Increased material cost of sales leading to reduced margins without increases in selling price. **Time horizon:** Short-term **Likelihood:** Low **Magnitude of impact:** Significant **Impact area:** Operations	**Risk impact** Rise in material prices for switching to compliant products or disruption to production if unable to react in sufficient time. **Time horizon:** Short-term **Likelihood:** Moderate **Magnitude of impact:** Significant **Impact area:** Operations	**Risk impact** Supply chain disruption leading to higher prices or shortages in raw materials. Impact on increased cost of sales or, in the extreme, disruption to production until normal supply resumes or alternatives can be found. **Time horizon:** Medium-term **Likelihood:** Low **Magnitude of impact:** Significant **Impact area:** Operations
Current risk controls Product Development and Strategic Sourcing teams identify and evaluate viable alternatives in materials and processes and work closely with key suppliers to deliver supply chain solutions.	**Current risk controls** We have product compliance processes in place to manage this type of change in the regulatory environment, with oversight and support from the Group Head of Quality. We use existing processes to meet RoHS and REACH requirements which remain appropriate to manage future changes in standards.	**Current risk controls** Long-term supply agreements with key suppliers can mitigate short-term price volatility. Business interruption insurance provides a degree of cover in the event that supply chain issues cause significant disruption to production.

TCFD report continued

Risk management continued

Severe event causes existing customers to relocate operations (Acute physical)	Extreme weather impacts global logistics capacity (Acute physical)	Extreme weather impacts operations (Acute physical)
Context Flooding and/or other natural disasters linked to climate change could cause customers to relocate from areas that are particularly affected by the physical impact of climate change.	**Context** Logistics disruption due to extreme weather events, or loss of infrastructure due to rising water levels (reduced airport and port capacity).	**Context** Disruption to manufacturing operations due to loss of infrastructure arising from wildfires or other physical damage related to climate change. Particularly relevant for operations in California.
Risk impact Unplanned relocations may lead to a short-term hiatus in demand. As a Group we may need to adapt and relocate operations ourselves to meet the revised geographical profile of demand. **Time horizon:** Medium-term **Likelihood:** Low **Magnitude of impact:** Notable **Impact area:** Service operations	**Risk impact** Increased competition for limited transport options drives up the price of transport, affecting both goods in and goods out. **Time horizon:** Medium-term **Likelihood:** Highly likely **Magnitude of impact:** Notable **Impact area:** Operations and customers	**Risk impact** Potentially ranging from short-term disruption to operations if employees are unable to access facilities (e.g. due to road closures), to major disruption in the event of a total loss of the manufacturing facilities. **Time horizon:** Medium-term **Likelihood:** Moderate **Magnitude of impact:** Notable to severe **Impact area:** Operations and customers
Current risk controls Strategic review of logistics, supply chain, manufacturing, and service operations.	**Current risk controls** Strategic review of logistics, supply chain, manufacturing, and service operations.	**Current risk controls** Business continuity plans and global business interruption insurance.

Climate-related opportunities

Investment in R&D required for decarbonisation (Transition: Technology)	Geopolitical uncertainty and resource competition (Transition: Regulatory)	Migration from fossil fuels to renewable energy (Transition: Market)
Context Product innovation will be required to decarbonise the economy. It will entail significant expenditure on research and development into new materials, technologies, and new ways of working.	**Context** Geopolitical tensions may arise from climate change, leading to increased requirement for local development and manufacturing capacity in the growing markets of semiconductors electronics and quantum technologies.	**Context** The path to Net Zero requires migration from fossil fuel energy to renewables (e.g. from ICE to EV). The speed of change is likely to be accelerated by geopolitical supply concerns over fossil fuels.
Opportunity impact Due to the requirement for decarbonisation, demand for Oxford Instruments products and services may increase. Product innovation as a result of decarbonisation may help reduce operating costs e.g. through remote delivery services. **Time horizon:** Short-term **Likelihood:** Highly likely **Magnitude of impact:** Significant **Impact area:** Customers	**Opportunity impact** Increased demand for enabling technologies resulting in an increased market opportunity for our business. **Time horizon:** Short-term **Likelihood:** Highly likely **Magnitude of impact:** Significant **Impact area:** Shareholders	**Opportunity impact** Increased demand for our products and services that enable the development of more efficient battery technology and highly efficient energy conversion devices. **Time horizon:** Short-term **Likelihood:** Highly likely **Magnitude of impact:** Significant **Impact area:** Shareholders, Customers, Society
How we are capitalising Our products and services play a key role in the technology pathway to enable the transition from fossil fuels to a low-carbon economy. Our enabling technologies such as materials analysis solutions and semiconductor equipment help customers address these challenges.	**How we are capitalising** We continue to invest in our product portfolio to assist our customers in delivering their global and regional roadmaps and supporting sufficient manufacturing capacity by location.	**How we are capitalising** Increased investment in key enabling technologies such as analytical instruments and semiconductor equipment that are key in the transition to renewables.

TCFD report continued

Metrics and targets

We currently use a range of metrics to help us to track our progress across a number of aspects of environmental sustainability. This includes assessment of our electricity consumption, Scope 1 and 2 emissions in line with the Greenhouse Gas Protocol methodology, water and waste, the use of hydro-fluorocarbons and the impact of transport. Please see the Environment section of our Report and Financial Statements on pages 49 to 51 for further information.

We do not yet report against further metrics and targets in addition to those noted above, as our work to assess our climate-related risks and opportunities is not yet fully embedded in our strategy and risk management processes. We intend to develop further metrics and targets and to report on our progress in line with these, as we progress with our sustainability agenda.

We are committed to reaching Net Zero and to monitoring and calculating our carbon footprint in line with industry standards. We are currently working with an external consultant to validate our Scope 1 and 2 assessment and to evaluate both our Scope 3 emissions and also our base year (2018) carbon footprint. Once this work has been completed, we will be able to determine meaningful carbon reduction targets to work towards, with the goal of presenting this to the SBTi for their approval. We have previously stated that we aspire to reach Net Zero ahead of 2050 and aim to be ambitious in the new targets that we set and report on, to help us reach this goal. Assessing our progress towards reaching these targets will then form a crucial part of the future work of the Sustainability Committee.

Social

We believe that businesses have a valuable contribution to make in the development of societies that enable their members to thrive.

We are dedicated to being a truly sustainable organisation and we are keenly aware of our responsibility to our employees, the communities that we impact and the generations to come. By listening to our stakeholders and taking action now, we are resolute in ensuring that we have a positive impact on the world around us.

We believe that businesses have a valuable contribution to make in the development of societies that enable their members to thrive. Over the last few years, the pace and extent of social change has been phenomenal, from the impacts of covid to social change movements like Black Lives Matter and #MeToo. We have worked hard to provide a progressive business culture and to remain ahead of the curve on our key sustainability themes while remaining respectful of the cultures of the countries that we operate in.

At Oxford Instruments, our social sustainability agenda comprises five key subject areas, where we have established policies to support us in achieving our ambitions and targets. During the year we have reviewed and updated the measures we have in place and going forward we will provide updates on our progress against these targets.

Equality, diversity and inclusion

We are committed to equality, diversity and inclusion in its broadest sense. Being inclusive is a core company value and is based on respect for the individual and creating a sense of belonging.

In everything we do, we seek to develop and sustain a culture where difference is recognised, valued and celebrated.

We encourage a supportive and collaborative working environment, so all our people feel able to be open about their own unique identity, and they have a strong sense of belonging within the Company.

We recognise that equality, diversity and inclusion is important for all our people and society as a whole, but we also recognise that we operate in 26 countries around the world in which the legislative frameworks and cultural landscapes vary hugely. In each of the countries in which we operate, we aim to be ahead of the curve in our equality, diversity and inclusion targets and working practices of that country but will ensure that we are not in conflict with the legislative framework of that country.

We have identified several key areas of focus, including gender, ethnicity, disability, sexual orientation and gender identity. In each area we are reviewing options to become an active partner with external organisations that advocate for these areas. We have done this to ensure that we are continually improving our awareness and understanding of research and best practice in diversity and inclusion for businesses. We also engage in externally run schemes offering internships and career opportunities in our diversity and inclusion focus areas.

We continue to build on the work we have done so far to establish balanced shortlists in our recruitment processes, only engaging executive search firms who have signed up to the Voluntary Code of Conduct on gender diversity. Through the use of our employee engagement survey, we gather feedback from our teams about how they feel we are doing with regard to equality, diversity and inclusion, and use this feedback to drive further initiatives within the organisation.

During the year we updated a number of our policies to include our new hybrid working model, allowing employees to balance their work and home demands. We also restructured our US healthcare package to cover domestic partners and gender reassignment. In June we aligned with Pride and updated our logo to reflect our support. We continued to promote our relaunched values, which now includes a much stronger emphasis on diversity, and we reconfigured our internal employee data portals to include the Office for National Statistics ethnicity categories and increased the breadth of gender selection options.

New employees over the last twelve months by gender:

Gender	New employees
Female	35%
Male	65%

Social continued

<table>
<tr><td colspan="3">Gender split</td></tr>
<tr><td></td><td>Male</td><td>Female</td></tr>
<tr><td>Global Oxford Instruments</td><td>75%</td><td>25%</td></tr>
<tr><td>Plc Board</td><td>71%</td><td>29%</td></tr>
<tr><td>Management Board</td><td>86%</td><td>14%</td></tr>
<tr><td>Managers</td><td>80%</td><td>20%</td></tr>
<tr><td>Employees</td><td>74%</td><td>26%</td></tr>
</table>

<table>
<tr><td colspan="3">Gender split by region</td></tr>
<tr><td></td><td>Male</td><td>Female</td></tr>
<tr><td>UK</td><td>78%</td><td>22%</td></tr>
<tr><td>Europe</td><td>66%</td><td>34%</td></tr>
<tr><td>Asia</td><td>71%</td><td>29%</td></tr>
<tr><td>Americas</td><td>70%</td><td>30%</td></tr>
</table>

Targets:

| Objective	Target date	Progress to date
Balanced shortlists for recruitment	End of FY22: 60%	End of FY22: 62%
Ethnicity representation on the Board	By end of FY23: 1 person of colour	In progress
Women on the Board	By end of FY24: 40% women	Recruitment to a new NED role in progress that will broaden the skill set on the Board and will take us above the gender target in the Hampton-Alexander Review
Women as a proportion of senior leadership	By end 2025: 40% women	Currently 25%

Health, safety and wellbeing

We are committed to achieving a high standard of health and safety for anyone involved in, or affected by, our activities. We strive to provide a safe workplace and working environment, for all employees wherever they work.

Our approach is based on the ongoing identification and control of risk. We focus on preventative measures to remove hazards before they can escalate into accidents or near misses. We apply safe working practices supported by structured health and safety management systems, that are externally audited where appropriate.

Our overall accident frequency trend has decreased over the past four years and compares favourably with industry benchmarks.

Five-year view of accidents in ongoing businesses showing severity Excludes disposals — Minor / Serious

Year	Minor	Serious
2017	49	3
2018	48	5
2019	43	5
2020	34	1
2021	35	1
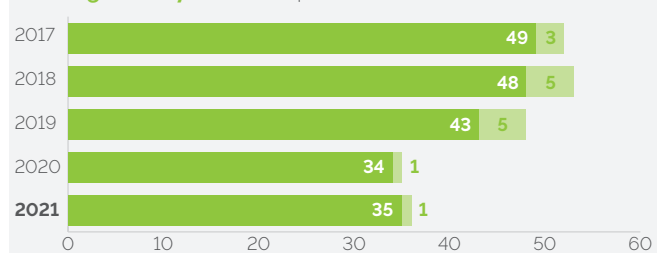
Five-year view of accidents/1,000 employees for ongoing businesses Accident/1,000 employees

Year	Accident/1,000 employees
2017	33
2018	31
2019	28
2020	21
2021	20
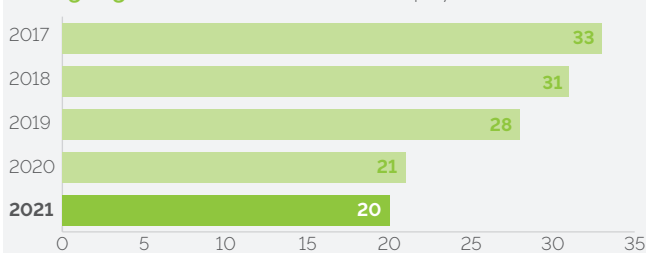
On all our sites, health and safety is a priority. We continue our Push for Zero programme, with the objective of a sustained reduction in accident levels across the Group. We introduced the SHIELD health and safety software platform, where accidents and safety observations can be recorded and corrective action set, to prevent recurrence.

We believe employees deserve to have access to the right mental health support to help them feel their best in a supportive culture. We aim to give people the tools to keep themselves and their colleagues healthy; we encourage them to access support when it's needed, and we empower people with long-term mental health issues or a disability to thrive in work. This year we provided all employees in the UK with access to Unmind, a workplace mental health app, to give them a wide range of resources that can help with mental wellbeing.

We continue to support our team of Mental Health First Aiders and provide independent and confidential digital platforms and services that employees can access all over the world.

Target:

Objective	Target	Comments
Serious accidents	Zero	No employees should experience a serious accident at work
Accident frequency rate	Continuous improvement	Push 4 Zero aims to reduce the accident rate year-on-year

Investing in our people

Our people and their capabilities are core to what makes us a great company. We want our employees to be successful, realise their full potential and to be able to make a difference. We are committed to being the company where the best people in our sector want to work and we offer high quality, stable employment and flexible careers with favourable conditions and pay. Because of the type of business we are, we can offer a broad range of career development opportunities across technical, commercial, operational and business support functions.

It is imperative that we are able to offer our employees and future employees a clear and credible skills and career development pathway. We look to combine internal mobility with flexible working practices, attractive benefits and inclusive and engaging recruitment practices.

Geographical spread of employees

UK 57%

Asia 17%

Europe 16%

Americas 10%
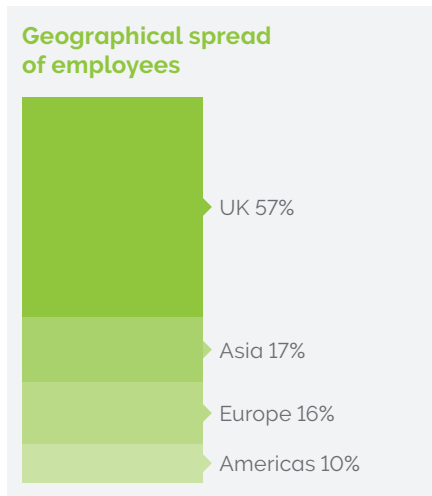
Employee turnover rates:

Year	Turnover
2017	12%
2018	10%
2019	7%
2020	6%
2021	**11%**

We provide a range of opportunities for our employees to gain knowledge, skills and experience to achieve individual and organisation goals. This includes challenging assignments, learning from colleagues or targeted training. Our talent management processes attract talented people and develop their capabilities to meet our current and future business needs. We integrate these processes within our business planning cycle.

We continue to strengthen our Oi Academy, which offers development programmes, core skills training courses and extensive e-learning opportunities. We also offer a broad range of secondments, career breaks, apprenticeships and support towards external qualifications.

We have developed Career Pathways to deliver career mapping for all roles across the Group, allowing employees to utilise this information to review potential career pathways of interest to them.

We are committed to building the skills that society needs now and in the future by investing, over the long term, in our people.

Next generation talent

We take our responsibility towards developing the next generation workforce seriously and are committed to inspiring the next generation of scientists, engineers and business people by showing them the difference they can make in the world and by providing work experience and employment skills and development opportunities.

For us, this begins in schools, colleges and learning institutions, where we equip and encourage our employees around the world to take any opportunity they can to talk to young people about careers in our industry. We partner with universities and post-graduate schools to help students understand the range of careers available in a technology company, supporting this with work experience and engagement with employees from a broad range of backgrounds. A popular benefit we offer all employees is the offer of work experience to family members between the ages of 16 and 25.

We remain committed to providing structured apprenticeships, sponsorships, internships, early career jobs and graduate programmes. We intentionally reach out to attract a diverse range of people and those from untapped talent pools, ensuring we are inclusive and accessible.

Community impact

We actively engage in locally focused activities that make our communities and environments a better place to live and work. We encourage our employees to join volunteering schemes, charity outreach programmes and we offer sponsorship of local community events.

Our GoGreen teams are present on each site and help us look at better ways to be more environmentally friendly, both as a business and as individuals. We have taken steps to minimise traffic noise and congestion around our sites and remain committed to minimising emissions from our own activities. You can read more about this in the environment section, starting on page 49.

When we arrange gifts, celebrations, events and activities for our teams we aim to support the small, independent businesses near our sites.

During the year, across our sites, we organised a number of activities that supported our local businesses. This included bringing a barber on site, running exercise classes, and dog walks. We also participated in a range of charity outreach activities, including raffles, marathon sponsorships, pub quizzes and coffee mornings.

Governance

Conducting our business in an ethical manner is vital to our ongoing success.

Governance

Conducting our business in an ethical manner is vital to our ongoing success. We strongly believe that there is never a right way to do the wrong thing and all our employees are expected to behave in a way that is consistent with our values. We are a company united by strong values and standards, with our brand and reputation built on this. Corporate responsibility is integral to our ongoing business success as it enables us to adapt to the changing landscapes we operate within.

In our governance practices, we address the wide range of corporate activities we undertake, the policies we have in place and our management structure.

Our governance sustainability agenda is comprised of eight key areas.

Anti-bribery and anti-corruption

When dealing with business partners, suppliers and customers, or when engaging with public officials, our employees are expected to act in a transparent and fair manner. We choose our business partners and suppliers carefully and avoid working with those that do not meet and adhere to the same high standards.

The key principles we expect everyone to follow include not offering or accepting bribes or improper payments; not improperly influencing an individual; and not participating in any kind of corrupt business activity either directly or through a third party. To help our employees understand what is expected of them we have developed and mandate completion of a comprehensive training course and have published a detailed policy document.

Adherence to our due diligence procedure for the onboarding of third-party agents and distributors continues to be regularly audited, and training delivered by our Group Legal team to all new Finance Directors and Contract Managers.

Sanctions, export control and customs

In the past year we reviewed our Sanctions Policy to confirm compliance with the UN, UK, EU and US sanctions. We also introduced a Group Customs Policy to document our specific expectations in this area.

We delivered an internal compliance programme for export controls and customs in the year and complemented this with an external review of our export control policies and procedures by an independent consultant. As a result of the findings, we have implemented a few key changes to further strengthen our protection in this area.

Dissemination of inside information to the market and share dealing

We take reasonable steps to establish and maintain adequate procedures, systems and controls to comply with our obligations that arise from the Listing Rules and Disclosure Guidance and Transparency Rules. On an ongoing basis, we also continue to ensure that our procedures, systems and controls are adequate regarding the Market Abuse Regulation.

We maintain and update a secure list of anyone who has access to inside information whether on a regular or occasional basis and ensure that anyone working on our behalf or on our account do the same. We ensure that those on the list are aware of and acknowledge the legal and regulatory duties required of them while on the list.

The Company Secretariat is responsible for ensuring compliance in this area. We have recently launched a new policy, to document our approach and practices regarding the dissemination of inside information to the market.

Supply chain responsible sourcing

The Group uses an approved vendor list for the supply of continuous use production materials, which is managed by Group Strategic Sourcing. Our policy is that all key suppliers on this list must complete a governance questionnaire via an online supplier portal. In the year we have focused on ensuring that we have up-to-date governance questionnaires for all key suppliers.

We have continued to remove risk from our supplier base by consolidating our suppliers and ensuring suppliers go through the onboarding process. Over the last year we have achieved a 15% reduction in our direct supplier base; a reduction of 55% since we started this strategy.

Our online supplier portal allows us to store and audit all our supplier documents and we will be expanding this functionality to collect sustainability information and data from our suppliers. During the year ahead our Group Strategic Sourcing team will work closely with WITec to align their policies and processes with the rest of the Group.

Human rights and modern slavery

We have a zero-tolerance approach to all forms of modern slavery, including servitude, forced bonded and compulsory labour, and human trafficking. Training is available to help employees recognise where there may be risks of modern slavery and human trafficking within our business and our supply chains.

We have a procedure in place to help anyone that needs to report a business malpractice and report any concerns they have. We have further guidance available in our Global Human Rights Policy, and employees can use these documents in their due diligence of suppliers.

In addition, we have a publicly available global Code of Business Conduct and Ethics, which sends a clear message to our employees, business partners, investors and other stakeholders of our business principles and ethics.

Our Anti-Slavery and Human Trafficking Statement can be found on our website. We also submit this statement to the Government's new modern slavery statement registry.

Intellectual property and confidentiality

Our intellectual property (IP) is one of our most important assets; it is key to our success in the market and enables us to secure and maintain a competitive advantage. We have comprehensive policies and procedures in place to protect our IP.

We continue to protect our inventions, brand and designs through the use of registered IP rights. In the year we filed 16 new priority patent applications, an increase of seven compared to the previous year.

As the basis for protecting our trade secrets we have in place a well-established process for preparation, review and signing of all confidentiality agreements. All employees are able to download a standard set of templates, along with guidance and training on how to complete these templates on our internal SharePoint pages.

Data protection, data privacy and data security

Our global privacy standard sets out the principles that guide our approach to handling personal information as a business and all employees are required to undertake mandatory training on data protection.

This year, we have made some minor adjustments to our privacy policies, notices and other internal documents to reflect that the UK has now created its own UK GDPR since leaving the EU. We have produced specific privacy notices and assessments, and supported our HR teams on data protection issues with respect to covid, such as to allow for on-site testing to take place at our UK sites and the collection of personal information regarding vaccination status.

We continue to run training sessions and have updated our guidance notes for our marketing teams to ensure that their lead generation and other marketing activities are compliant with the GDPR and related privacy legislation.

During the year China introduced its new Personal Information Protection Law and we have worked with our teams there to develop a compliance programme to allow us to operate within the requirements of this new legislation. We continue to stay on top of developing compliance programmes around the world to ensure we can respond quickly to any changes made in the data protection legislation.

Financial sustainability and tax transparency

The Group continues to maintain a focus on cash generation to ensure we are financially stable and we have published our policy within the Sustainability section of our website.

Global policies

- Code of Business Conduct and Ethics
- Global Anti-Bribery and Anti-Corruption Policy
- Group Conflict of Interests Policy
- Group Export Controls Policy
- Group Sanctions Policy
- Group Customs Policy
- Group Share Dealing Policy and Procedure
- Code of Conduct for Representatives and Suppliers
- Global Human Rights Policy
- Modern Slavery Statement
- Group Reporting a Business Malpractice Procedure
- Global Data Privacy Standards
- Global IT Infrastructure and Use Policy
- Oxford Instruments plc Tax Strategy

Find out more online

www.oxinst.com/investors