AstraZeneca

What science can do

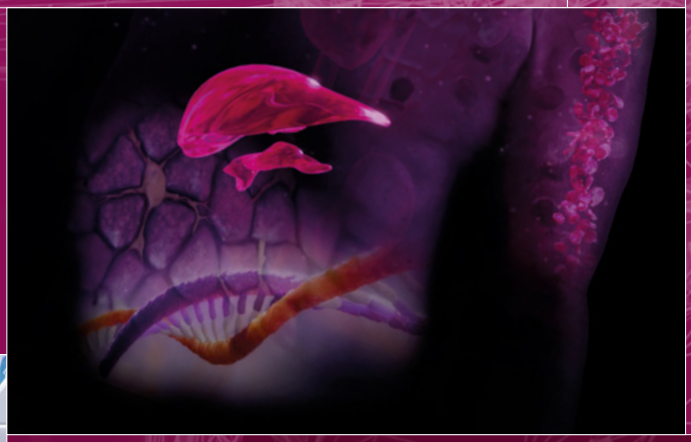
AstraZeneca Annual Report and Form 20-F Information 2023

What science can do

We are a global, science-led, patient-focused pharmaceutical business, committed to excellence in the research, development and commercialisation of prescription medicines. We aim to transform the lives of patients with improved outcomes and a better quality of life.

We are using data, digital technologies and artificial intelligence to transform our business, accelerate our science and maximise our impact for people, society and the planet.

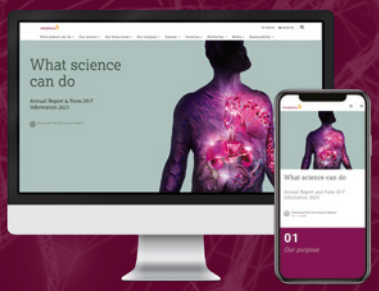
See what we are doing in this area on page 6.



Our Supplements

Detailed information on our Development Pipeline, Patent Expiries of Key Marketed Products, Risk and Task Force on Climate-related Financial Disclosures (TCFD) Statement.

See our website, www.astrazeneca.com/annualreport2023.



Key

- For more information within this Annual Report.
- For more information, see www.astrazeneca.com.
- BV Denotes sustainability information independently assured by Bureau Veritas.

Front cover image: Cardiovascular, Renal and Metabolic (CVRM) diseases.

CVRM diseases are complex and interconnected. It's by understanding their interconnections and targeting the mechanisms that drive them that we'll be able to detect, diagnose and treat people earlier and more effectively, stop disease progression and, ultimately, improve and save the lives of the millions of patients living with these diseases.

Use of terms:
In this Annual Report, unless the context otherwise requires, 'AstraZeneca', 'the Group', 'we', 'us' and 'our' refer to AstraZeneca PLC and its consolidated entities.

Financial highlights

Total Revenue[1]

Up 3% at actual rate of exchange to $45,811 million (up 6% at CER), comprising Product Sales of $43,789 million (up 2%; 4% at CER), Alliance Revenue of $1,428 million (up 89%; 89% at CER) and Collaboration Revenue of $594 million (down 1%; 1% at CER)

$45.8bn

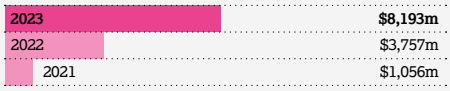
Net cash flow from operating activities

Up 5% at actual rate of exchange to $10,345 million

$10.3bn

Reported operating profit

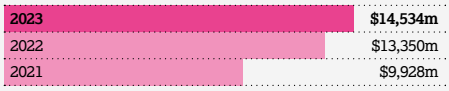
Up 118% at actual rate of exchange to $8,193 million (up 134% at CER)



$8.2bn

Core operating profit

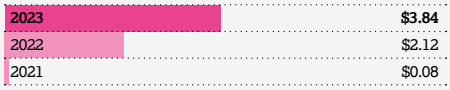
Up 9% at actual rate of exchange to $14,534 million (up 14% at CER)



$14.5bn

Reported EPS

Up 81% at actual rate of exchange to $3.84 (up 96% at CER)



$3.84

Core EPS

Up 9% at actual rate of exchange to $7.26 (up 15% at CER)

$7.26

// Denotes a scale break. Throughout this Annual Report, all bar chart scales start from zero. We use a scale break where charts of a different magnitude, but the same unit of measurement, are presented alongside each other.

For more information:

In relation to the inclusion of Reported performance, Core financial measures and constant exchange rate (CER) growth rates as used in this Annual Report, see the Financial Review from page 58.

For the reconciliation between Reported and Core performance, see the Reconciliation of Reported results to Core results in the Financial Review on page 62.

[1] As detailed from page 152, Total Revenue consists of Product Sales, Alliance Revenue and Collaboration Revenue.

Contents

Strategic Report

Chair's Statement **2**
Chief Executive Officer's Review **3**
AstraZeneca at a Glance **5**
What science can do: artificial intelligence **6**
Healthcare in a Changing World **7**
Our Purpose, Values and Business Model **10**
Our Strategy and Key Performance Indicators **12**
Therapy Area Review **16**
> Oncology **16**
> BioPharmaceuticals **20**
– Cardiovascular, Renal & Metabolism **22**
– Respiratory & Immunology **24**
– Vaccines & Immune Therapies **26**
> Rare Disease **28**
Business Review **32**
EU Taxonomy Disclosure **50**
Task Force on Climate-related Financial Disclosures Summary Statement **51**
Risk Overview **54**
Financial Review **58**

Corporate Governance

Chair's Introduction **76**
Corporate Governance Overview **77**
Board of Directors **78**
Senior Executive Team (SET) **80**
Corporate Governance Report **81**
Nomination and Governance Committee Report **90**
Science Committee Report **92**
Sustainability Committee Report **93**
Audit Committee Report **94**
Directors' Remuneration Report **102**
Remuneration Policy **127**

Financial Statements

Preparation of the Financial Statements and Directors' Responsibilities **140**
Directors' Annual Report on Internal Controls over Financial Reporting **140**
Auditors' Report **141**
Consolidated Statements **148**
Group Accounting Policies **152**
Notes to the Group Financial Statements **160**
Group Subsidiaries and Holdings **211**
Company Statements **216**
Company Accounting Policies **218**
Notes to the Company Financial Statements **220**
Group Financial Record **223**

Additional Information

Shareholder information **225**
Directors' Report **227**
Sustainability supplementary information **230**
Trade Marks **231**
Glossary **232**
Cautionary statement regarding forward-looking statements **236**

Chair's Statement

"Our differentiated and growing portfolio of approved medicines, global reach and rich R&D pipeline give us confidence that we will continue to grow faster than the industry over the near and medium term"

$2.90

Full-year dividend of $2.90 per share (2022: $2.90)

AstraZeneca is focused on delivering its Purpose and has ambitious plans for the future.

I was honoured to be appointed to succeed Leif Johansson as the Chair of AstraZeneca when he stood down at our Annual General Meeting in April. Leif brought together a strong Board, with an impressive and diverse mix of skills and experience, to oversee our ambitious pursuit of innovation and success.

Leif and I share the view that a board has three core roles: maintaining good governance, oversight of strategy and development of people. As your new Chair, I look forward to focusing on these priorities and, building on my own experience in other organisations, working with the Board to unlock the full potential of what AstraZeneca has to offer.

A clear strategy and ambitious goals

AstraZeneca's achievements and returns to shareholders are built on the successful delivery of our Growth Through Innovation strategy and our strategic priorities. We have ambitious plans for the future and are relentless in our focus to push the boundaries of science to deliver life-changing medicines. By living our Values and realising our strategic goals, we aim to transform patient outcomes, deliver industry-leading revenue growth, and ensure we remain a great place to work. Between 2023 and 2030, we aim to launch at least 15 new medicines and become carbon negative, thereby making an even bigger difference for people, society and the planet.

Performance and outlook

As AstraZeneca celebrates its 25th anniversary, I was pleased we were able to report another year of strong financial development and scientific progress, with double-digit earnings growth, and investment in exciting areas of science that lay the foundations for long-term success.

Reflecting this financial performance, the Board intends to declare a second interim dividend of $1.97 per share, making a total dividend declared for the full year of $2.90.

Looking ahead, we expect another year of strong growth in 2024, driven by continued adoption of our medicines across geographies. Our differentiated and growing portfolio of approved medicines, global reach and rich R&D pipeline give us confidence that we will continue to grow faster than the industry over the near and medium term.

A purpose-driven organisation

In my time as a Director, I have experienced at first hand the commitment of AstraZeneca people to delivering our Purpose. And in my recent experience as Chair, whether at our Speke site in the UK or Gaithersburg in the US, our Gothenburg site in Sweden or our Tokyo office in Japan, I have been extremely impressed by the enthusiasm for everything they do. I would like to extend my personal thanks to everyone in AstraZeneca for all they have achieved in 2023, as well as to Pascal, the Senior Executive Team and my fellow Directors.

Engaging stakeholders and shareholders

The role AstraZeneca has to play in addressing public health challenges and promoting innovation and sustainable access to treatments resonates strongly with governments and other stakeholders I have met during the year.

Through the Partnership for Health System Sustainability and Resilience (PHSSR), I engaged policymakers, academics and health leaders across countries to advance policies strengthening the capacity of health systems to absorb the impact of future crises, while effectively responding to today's growing burden of diseases. AstraZeneca is incredibly proud to be a founding member of the PHSSR, a public-private partnership that is accelerating the transformation of health systems around the world. I also valued the opportunity to deepen AstraZeneca's collaborations with patient advocacy groups, governments and the private sector to improve equitable health outcomes for all.

Most recently I was proud to lead the AstraZeneca delegation at the World Economic Forum where we explored how to deepen our collaboration with key stakeholders to ensure healthcare is viewed as a strategic asset everywhere in the world.

Finally, I have enjoyed meeting shareholders and understanding what you would like to see from AstraZeneca. I look forward to meeting more of you this year and to driving continued impact for patients.

Michel Demaré
Chair

Chief Executive Officer's Review

"Our vision for health is not a short-term one. While maintaining our focus on discovering new small and large molecules, we are also increasing investment behind new modalities…"

$45.8bn
Total Revenue (2022: $44.4bn)

56
Regulatory events – submissions or approvals in major markets

2023 was a year in which we continued to grow the business and deliver for patients. At the same time, we are investing for the future benefit of people, society and the planet.

2023 was a year of strong growth and execution of our long-term growth strategy as Total Revenue increased by 3% (6% at CER) to $45.8 billion. Excluding COVID-19 medicines, Total Revenue increased by 13% (15% at CER) to $45.5 billion.

Continued growth in our therapy areas

Our ability to grow the business builds on our broad-based, diverse sources of revenue across our therapy areas and regions.

In our therapy areas, Total Revenue in 2023 for Oncology increased by 19% (21% at CER); Cardiovascular, Renal & Metabolism by 15% (18% at CER); and Respiratory & Immunology by 7% (10% at CER). Vaccines & Immune Therapies Total Revenue fell by 72% (71% at CER) as demand for COVID-19 medicines fell away, while Rare Disease rose by 10% (12% at CER).

In our regions, Total Revenue in the US was up 6% in 2023, in Europe it grew by 10% (8% at CER) and by 2% (9% at CER) in Emerging Markets. Total Revenue fell by 14% (8% at CER) in Established Rest of World. Excluding COVID-19 medicines, Total Revenue grew in all regions.

Our financial performance was matched by our operational performance, with 282 successful on-time launches during the year, overall supply performance of more than 99% and zero critical observations reported from 49 external inspections. This represents an outstanding performance that ensures a continuous supply of high-quality medicines to patients.

Innovating in science

AstraZeneca has one of the leading development pipelines in the sector and its strength in 2023 was evidenced by first approvals for three new medicines – the first year in our eight-year goal of launching at least 15 new molecular entities (NMEs) between 2023 and 2030.

Airsupra was approved for the first time in January 2023 for use as an as-needed treatment to reduce risk of asthma exacerbations. In November, *Truqap* in combination with *Faslodex* was approved for certain patients with advanced HR-positive breast cancer. And, right at the end of 2023, AstraZeneca and Ionis' *Wainua* was approved for the treatment of the polyneuropathy of hereditary transthyretin-mediated amyloidosis in adults. It is the only approved treatment that can be self-administered with an auto-injector.

The good news continued in January 2024 with first approval of *Voydeya*, a first-in-class oral, Factor D inhibitor developed as an add-on to proven standard of care *Ultomiris* or *Soliris* to address the needs of a small subset of patients with paroxysmal nocturnal haemoglobinuria.

The broad strength of our pipeline was exemplified by the fact that we achieved 56 regulatory events during the year, either submissions or approvals for our medicines in major markets. Additionally, we recorded 30 pipeline progression events, either NME Phase II starts or Phase III investment decisions. Of course, pushing boundaries sometimes means setbacks and, while we had some clinical trials during the year that did not meet their primary objectives, we are committed to improving health outcomes and learn from all our trials. Overall, 2023 was predominantly a year of scientific success and our pipeline progress indicates our ability to deliver longer-term sustainable growth.

Importantly, the science in each of our therapy areas is making a real difference to the lives of people around the world. For example, in Oncology, *Enhertu*, the antibody drug conjugate we are developing with Daiichi Sankyo, is approved around the world for the treatment of HER2-mutated breast, lung and gastric cancers. In addition, in 2023, it received not one, but two more US Breakthrough Therapy Designations for multiple types of HER2-expressing tumours and HER2-positive colorectal cancer. Additionally, in January 2024, it was granted Priority Review in the US for patients with a range of metastatic HER2-positive solid tumours.

These designations demonstrate the impact regulatory authorities believe *Enhertu* can have. Dato-DXd is also being developed with Daiichi Sankyo, and pivotal trial data announced during the year underlined our confidence in its potential to replace conventional chemotherapy for many patients with advanced lung and breast cancers.

In BioPharmaceuticals, data from the *Forxiga* DELIVER trial was critical in informing a Class 1a recommendation in updated European Society of Cardiology Heart Failure guidelines. We have further strengthened our pipeline with CinCor's candidate drug, baxdrostat for blood pressure lowering, with Quell to develop, manufacture and commercialise engineered T-regulatory cell therapies for autoimmune-driven diseases, and with Eccogene's novel agent, AZD5004 for the treatment of obesity and broader cardiometabolic conditions.

Our medicines are now helping patients with rare diseases in 70 markets – 18 more than 2021. Treatments include *Ultomiris* for multiple indications, including neuromyelitis optica spectrum disorder (NMOSD), a progressive autoimmune disease that impacts the central nervous system. With no relapses observed in the pivotal CHAMPION-NMOSD trial, *Ultomiris* marks a significant advance for these patients. Regulatory reviews are ongoing, including in the US, and it is already approved in the EU and Japan.

People, society and the planet

All AstraZeneca's achievements are down to the skills and capabilities of its people, and I am delighted to see that we have a highly engaged workforce, with 86% believing that we are a great place to work. I am also pleased with the progress we are making in creating an inclusive multinational and multicultural environment where everyone belongs, and using this diversity as a competitive advantage. I am particularly proud that 50% of our senior roles are filled by women.

Looking beyond AstraZeneca, 2023 was the year in which the world recognised that the climate crisis is a health crisis. This was no more apparent than at COP28 in Dubai where, for the first time, health was on the agenda and AstraZeneca was able to play a leading role in a dedicated Health Day that discussed the transition to low-carbon, climate-resilient health systems.

AstraZeneca is working to decarbonise healthcare and is doing so in collaboration with peers, stakeholders and suppliers. Since 2015, there has been a 68% reduction in our Scope 1 and 2 greenhouse gas (GHG) emissions and, during 2023, we concluded agreements in the UK and in the US to use renewable natural gas, or biomethane, to supply clean heat to our sites. In addition, through our power purchase agreement in Sweden, we are expanding the country's wind energy capacity. Also in 2023, we strengthened our investment in nature-based solutions by expanding our AZ Forest programme to include planting and maintaining 200 million trees across six continents by 2030. Overall, through our Ambition Zero Carbon strategy we are on track to halve our entire value chain Scope 1, 2 and 3 footprint by 2030 and, through AZ Forest, we aim to become carbon negative for all residual GHG emissions from 2030 onwards, removing more from the atmosphere than we emit.

Of course, our greatest contribution to human health is through our medicines and securing a future where people have access to affordable, sustainable healthcare. Through our access to healthcare programmes, we have reached more than 66 million people, while our Partnership for Health System Sustainability and Resilience is fostering joint learning and acting as a catalyst to strengthen health systems in more than 30 countries. We are not resting there and are advancing a health equity strategy that will build on our existing access programmes to enable more equitable global health outcomes.

Investing in future health

Our vision for health is not a short-term one. While maintaining our focus on discovering new small and large molecules, we are also increasing investment behind new modalities that we believe have the potential to revolutionise outcomes for patients. We are exploring modalities such as cell, gene and RNA therapies, epigenetics and oligonucleotides to unlock entirely new treatment approaches and are excited by their curative potential.

Our own efforts in these new modalities are supplemented by external expertise. In 2023, we announced the proposed acquisition of biotechnology company, Gracell, to further our cell therapy ambitions across oncology and autoimmune diseases, and an agreement with Cellectis, a clinical-stage biotechnology company, to accelerate cell therapy as well as genomic medicine. We also acquired a portfolio of preclinical rare disease gene therapies and our proposed acquisition of Icosavax, focused on developing differentiated, high-potential vaccines using an innovative, protein virus-like particle platform, will build on our expertise in respiratory syncytial virus.

We operate across the whole life-cycle of a medicine and, in November, we launched Evinova, a health-tech business designing and leveraging digital tools to accelerate innovation across the life sciences sector, the delivery of clinical trials as well as better health outcomes.

As shown throughout this Report, our efforts to push the boundaries of science are helped by artificial intelligence and new digital technologies that allow us to discover and deliver new treatments faster than ever before and drive a step-change in the diagnosis, monitoring and treatment of patients.

Colleagues

In closing, I want to thank all the AstraZeneca team for the part they have played in an exceptional year and for what we have been able to achieve for people, society and the planet.

Thanks also go to my colleagues on the Senior Executive Team where, during the year, we welcomed Sharon Barr, who joined as Executive Vice President, BioPharmaceuticals R&D to replace Mene Pangalos, who retires in 2024. Sharon brings outstanding experience from Alexion and a track record of driving productivity, innovation and delivery of medicines. I want to thank Mene for his remarkable contribution to AstraZeneca and all he has done to transform how we approach R&D. In particular, I would like to pay tribute to the role he played in AstraZeneca's response to the COVID-19 pandemic. The quality of the medicines he has brought to patients, and the pipeline and capabilities he has built, will be his legacy for many years to come.

In the year when we said farewell to Leif Johansson as Chair, I would like to close by extending my thanks to his successor, Michel Demaré, who continues to ensure we pursue our Purpose of pushing the boundaries of science to deliver life-changing medicines.

Pascal Soriot
Chief Executive Officer

AstraZeneca at a Glance

We are a global, science-led, patient-focused pharmaceutical business. We are dedicated to transforming the future of healthcare by unlocking the power of what science can do for people, society and the planet.

Our strategic priorities

Our priorities reflect how we are working to deliver our Growth Through Innovation strategy and achieve our Purpose of pushing the boundaries of science to deliver life-changing medicines.

1. Science and Innovation
2. Growth and Therapy Area Leadership
3. People and Sustainability

Science and innovation-led

We use our distinctive scientific capabilities to deliver a pipeline of life-changing medicines.

178
projects in our development pipeline[1]

17
new molecular entities (NMEs) in our late-stage pipeline

123
NME or major life-cycle management (LCM) projects in Phase II and Phase III

[1] Includes NME and major LCM projects up to launch in all applicable major markets.

Leading in our Therapy Areas

We are focused on areas where we can make the most meaningful difference to patients.

Therapy Areas

Oncology
BioPharmaceuticals
Rare Disease

Total Revenue[2]

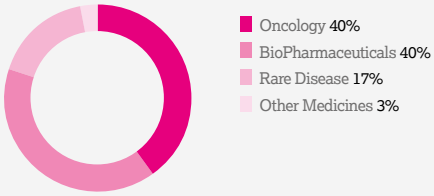
$45.8bn

[2] Total Revenue includes revenues from Other Medicines.

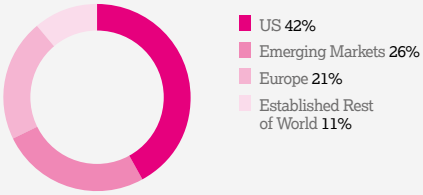
Diversified portfolio and global reach

With a focus on patients, we have a global reach and a diversified portfolio of medicines across primary care, specialty care and rare diseases.

Total Revenue by Therapy Area



Total Revenue by reporting region



Positively impacting people, society and the planet BV

We are committed to operating in a way that recognises the interconnection between business growth, the needs of society and the limitations of our planet.

66.4m
people reached by our access to healthcare programmes

67.6%
reduction in Scope 1 and 2 GHG emissions since 2015

MSCI ESG RATINGS AA

Rating of AA in the MSCI ESG Ratings assessment

MEMBER OF Dow Jones Sustainability Indices In Collaboration with RobecoSAM

Top 20% of 2,500 of the world's largest companies and Europe Index constituent

What science can do: artificial intelligence

Science can...

Artificial intelligence (AI) and our ability to process and understand vast amounts of data is accelerating innovative science, allowing us to discover and deliver new medicines faster than ever before.

It helps healthcare professionals diagnose, monitor and treat patients more personally and precisely, helps patients play an active part in their own treatment, and enables care to move from disease management to stopping the progress of disease, long-term remission, and even cure.

For more information on our approach to AI, please see IT and IS resources on page 41.

In **research and development (R&D)**, AI transforms our understanding of disease biology; drives earlier diagnosis; and helps us create the next generation of medicines and pioneer new approaches in the clinic and beyond.

See page 34.

In **Operations**, AI enhances manufacturing and supply, enabling us to respond more pro-actively, drive automation and robotics, and raise quality standards still further.

See page 40.

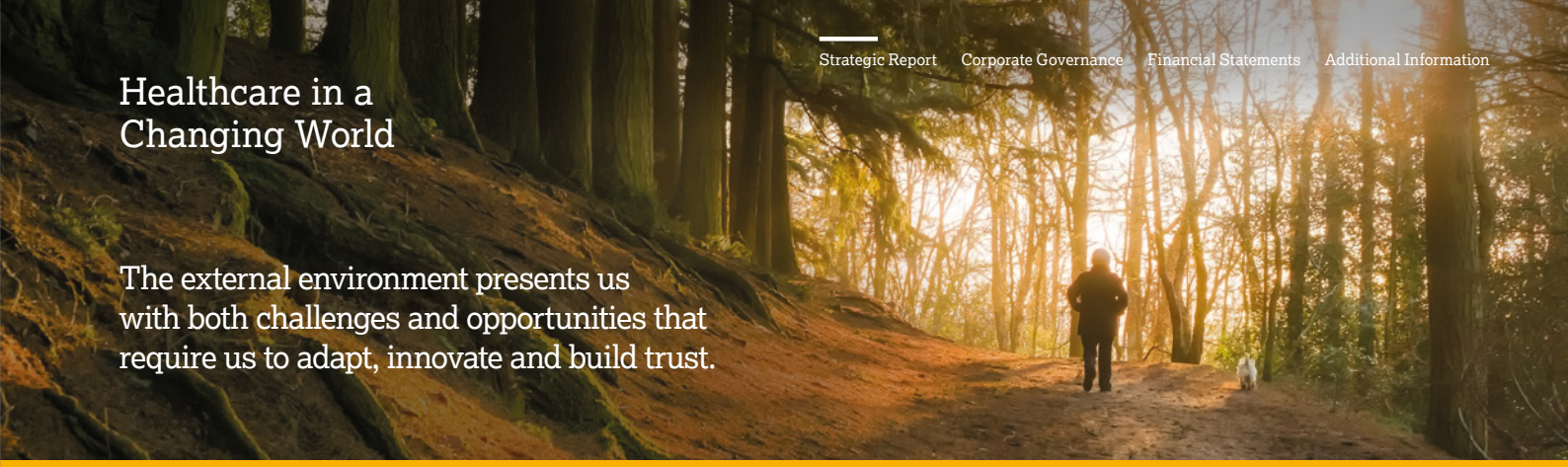
In our **therapy areas** and **markets**, AI helps create new ways of doing business and build new and more integrated healthcare systems, helping healthcare practitioners treat more patients earlier and empower patients.

See from page 16 and page 41.

Across the **business**, AI enables us to work more effectively, as well as work seamlessly with industry and academic partners. We aim to do so in a way that is responsible, ethical and transparent for the benefit of people, society and the planet.

See page 41.

Healthcare in a Changing World



The external environment presents us with both challenges and opportunities that require us to adapt, innovate and build trust.

A growing pharmaceutical sector

The pharmaceutical sector continues to grow against a backdrop of increasing demand for healthcare. Global pharmaceutical sales grew by 9.6% in 2023. Global healthcare spending is projected to increase at an annual rate of 7.8% from 2022 to 2027.

Global pharmaceutical sales

In 2023, average revenue grew 10.0% in Established Markets and 8.0% in Emerging Markets. The US, Japan, China, Germany and France are the world's top five pharmaceutical markets by 2022 sales. In 2023, the US had 50.9% (2022: 50.0%) of global sales.

$1,332bn (+9.6%)

World ($bn)

2023	1,332
2022	1,216
2021	1,121

US ($bn)

2023	678
2022	608
2021	556

$678bn (+11.5%)

Europe ($bn)

2023	248
2022	230
2021	211

$248bn (+7.8%)

Established RoW ($bn)

2023	108
2022	102
2021	97

$108bn (+5.7%)

Emerging Markets ($bn)

2023	299
2022	277
2021	257

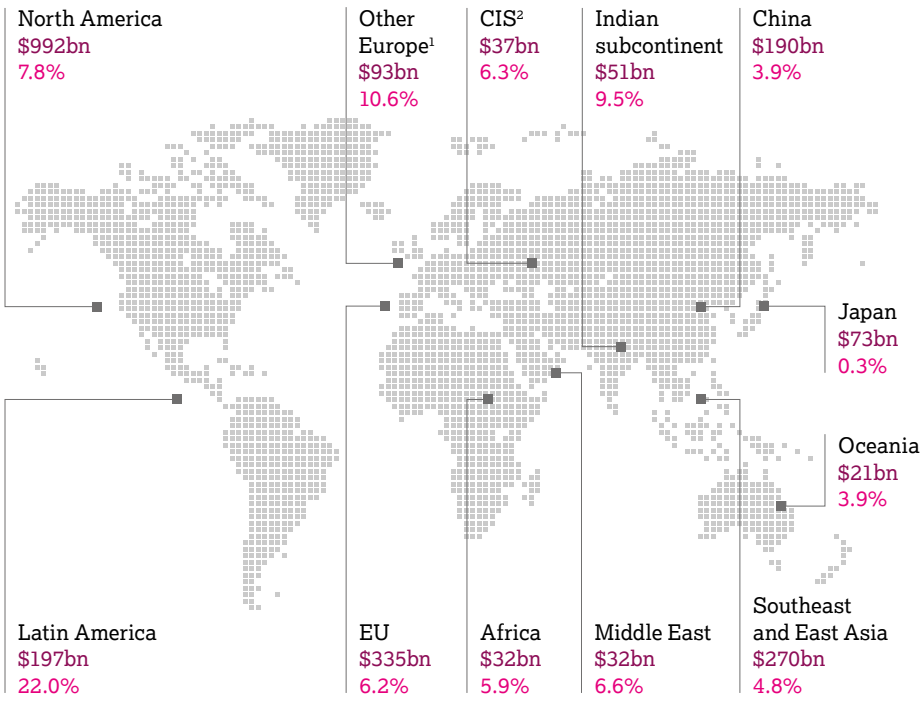
$299bn (+8.0%)

Data based on world market sales using AstraZeneca Market definitions as set out on page 232. Changes in data subscriptions, exchange rates and subscription coverage, as well as restated IQVIA data, have led to the restatement of total market values for prior years. Source: IQVIA, IQVIA Midas Quantum Q2 2023 (including US data). Reported values and growth are based on CER. Value figures are rounded to the nearest billion and growth percentages are rounded to the nearest tenth.

Estimated pharmaceutical sales and market growth to 2027

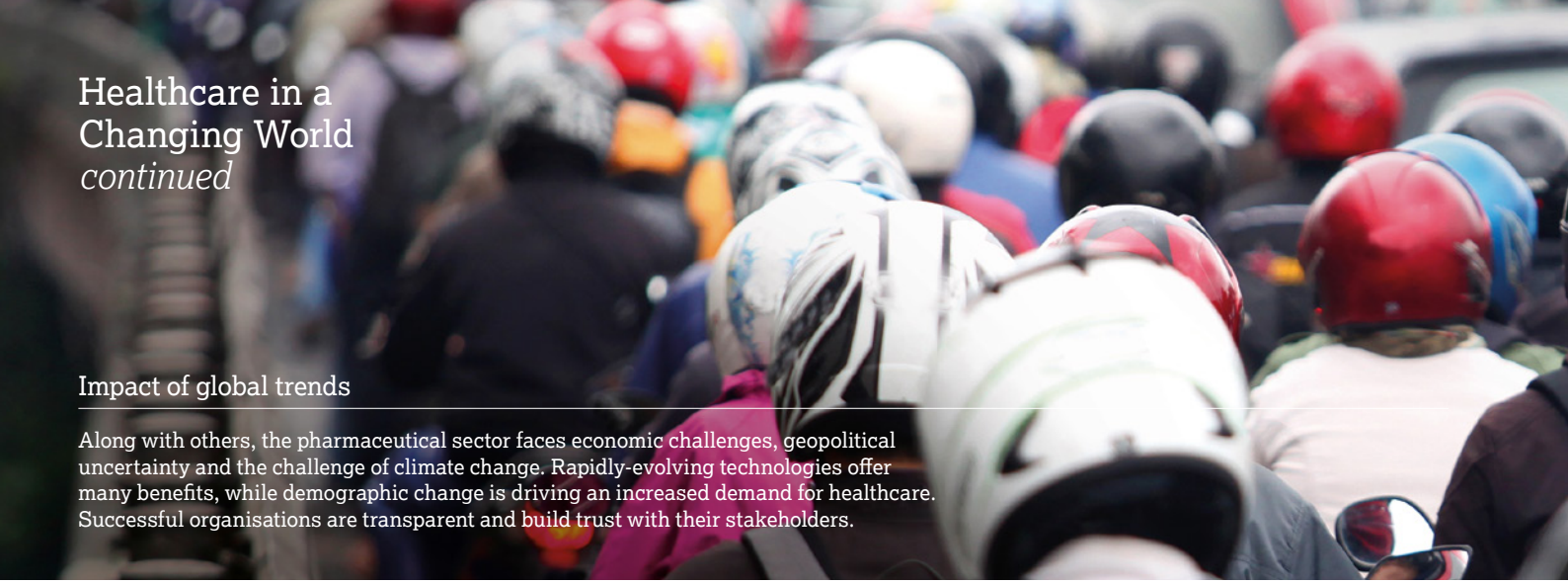
We expect both developed and developing markets to fuel pharmaceutical growth. Market growth in China is expected to remain below historical levels at a compound annual growth rate of 3.9%, due to the continued slowdown of the major hospital sector.

1 Non-EU countries; including the UK.
2 Commonwealth of Independent States; includes Armenia, Azerbaijan, Belarus, Georgia, Kazakhstan, Kyrgyzstan, Moldova, Russia, Tajikistan, Turkmenistan, Uzbekistan and excludes Ukraine.



Estimated pharmaceutical sales 2027. Data is based on ex-manufacturer prices at CER. Source: IQVIA.

Estimated pharmaceutical market growth. Data is based on the compound annual growth rate from 2022 to 2027. Source: IQVIA Market Prognosis Global 2023–2027.



Healthcare in a Changing World *continued*

Impact of global trends

Along with others, the pharmaceutical sector faces economic challenges, geopolitical uncertainty and the challenge of climate change. Rapidly-evolving technologies offer many benefits, while demographic change is driving an increased demand for healthcare. Successful organisations are transparent and build trust with their stakeholders.

Political

Growing geopolitical complexity

Increasing geopolitical tensions may weaken the economic landscape with broader consequences for companies.

Top three

Top CEOs identify digital disruption, the economy, and geopolitical uncertainties as the most important trends.
(Source: McKinsey & Company: CEO Excellence Survey 2023)

The war in Ukraine and the COVID-19 pandemic have accelerated a historic shift in the global order. Also, urgent, short-term risks are creating economic and geopolitical changes that may hasten other global threats. Current crises that divert attention and resources from medium- to longer-term risks may increase pressures on natural and human ecosystems. Some of these risks are close to a point of no return, but opportunities exist to shape a more secure future.

Geopolitical tensions, such as conflict in the Middle East, increase pressure on companies' supply and distribution networks and may also have ripple effects over the medium term, contributing to a potential 'polycrisis' of interrelated environmental, geopolitical and socioeconomic risks relating to natural resources supply and demand. Geopolitical tensions and economic pressures have already limited, and in some cases reversed, progress on climate change mitigation, at least over the short term.

(Source: World Economic Forum (WEF): The Global Risk Report 2023 18th edition)

Economic

Activity falls short of pre-pandemic path

Economic recovery remains slow and uneven after the COVID-19 pandemic and invasion of Ukraine.

2.9%

Global GDP growth was forecast to slow from 3.5% in 2022 to 3.0% in 2023 and 2.9% in 2024.
(Source: International Monetary Fund (IMF) World Economic Outlook, October 2023)

These growth projections remain below the historical (2000-2019) average of 3.8%. For advanced economies, the expected slowdown is from 2.6% in 2022 to 1.5% in 2023 and 1.4% in 2024, with stronger than expected US momentum but weaker than expected growth in the euro area. Emerging market and developing economies are projected to have modestly declining growth, from 4.1% in 2022 to 4.0% in both 2023 and 2024. Forecasts for global growth over the medium term, at 3.1%, are at their lowest in decades, and prospects for countries to catch up to higher living standards are weak. The likelihood of a hard economic landing has receded, but the balance of risks to global growth remains tilted to the downside.

Global inflation was forecast to decline steadily, from 8.7% in 2022 to 6.9% in 2023 and 5.8% in 2024 but is not expected to return to target until 2025 in most countries.

(Source: IMF World Economic Outlook, October 2023)

Societal

Increasing pace of population ageing

Every country in the world is experiencing growth in the number and proportion of older people.

1 in 6

By 2030, 1 in 6 people in the world will be aged 60 or over.
(Source: World Health Organization (WHO))

By 2050, the world's population of people aged 60 and older will double, to 2.1 billion. The number of people aged above 80 is expected to triple between 2020 and 2050, to 426 million. This places strains on healthcare systems and reduces the pool of working age people.

Low- and middle-income countries (LMICs) are now seeing the greatest population changes. By 2050, two thirds of the world's over 60s will live in LMICs, which are also disproportionately affected by non-communicable diseases (NCDs). NCDs kill 41 million people each year, more than three quarters of these in LMICs.

NCDs represented seven of the 10 leading causes of death in 2019 or 74% of deaths globally. Cardiovascular (CV) diseases account for 17.9 million deaths annually, followed by cancers (9.3 million), chronic respiratory diseases (4.1 million) and diabetes (2.0 million).

(Source: WHO)

These risks are explored further in the Risk Overview from page 54 and Pricing and value of our medicines from page 39.

AstraZeneca's response to the trends we face is explored further in Our Strategy and Key Performance Indicators from page 12.

Technological

Emerging regulatory regimes for AI

The use of AI has significant potential but also risks that must be managed.

27x

Investment in AI-enabled drug discovery is estimated to have grown 27-fold in the past nine years, exceeding $60 billion in 2023.

(Source: Deep Pharma Intelligence)

AI has the potential to bring significant benefits to the healthcare sector. For example, data science and AI can increase productivity in research, development and manufacturing, helping new medicines to reach patients more quickly. For medical professionals, AI can improve decision making, reduce errors and costs, personalise care plans and enhance patient monitoring. AI may also enhance the quality and accessibility of healthcare services, especially in remote and underserved areas.

However, a survey of chief risk officers by the WEF identified concerns about the potential harms caused by AI technologies – deliberately or inadvertently. More than 90% of respondents wished to see an accelerated pace of regulation around the development of these technologies to ensure the benefits can be realised safely.

(Source: WEF: Chief Risk Officers Outlook July 2023)

Environmental

Climate change accelerating

Climate change and ecosystem degradation impact human health and undermine the capacity of health systems.

100,000

2023 brought the highest global temperatures in more than 100,000 years.

(Source: 2023 report of the Lancet Countdown on health and climate change)

Climate change is a threat to human wellbeing and planetary health. There is a rapidly closing window of opportunity to secure a liveable and sustainable future for all. Without urgent, effective and equitable mitigation and adaptation actions, climate change increasingly threatens ecosystems, biodiversity, and the livelihoods, health and wellbeing of current and future generations.

(Source: Intergovernmental Panel on Climate Change (IPCC) Summary for Policymakers of Synthesis Report on Climate Change 2023)

Outlook

Opportunities and challenges for the sector

Demand for healthcare is increasing and science is driving improvements in healthcare, but risks remain for the sector.

34%

In a 21-country survey, 34% rated pharmaceutical companies trustworthy (31% in 2022), higher than any other sector. But 22% still distrust the industry.

(Source: Ipsos Global Trustworthiness Monitor: Stability in an unstable world)

While demographic and other changes are driving an increased demand for healthcare, continued advances in science and digital technologies are driving healthcare innovation and improvements. But risks remain. In addition to the downward pricing pressure, the sector faces regulatory challenges, loss of exclusivity and genericisation, and increasing expectations from various stakeholders.

To succeed, pharmaceutical companies must be able to take advantage of AI and emerging technologies. They also need to respond to the demands and expectations, and earn the trust of patients and caregivers, healthcare professionals and health authorities, payers, policymakers and others. They need to protect themselves against harmful misinformation and disinformation, which will require collaboration between businesses, policymakers and other stakeholders to tackle at scale.

Our Purpose, Values and Business Model

Inspired by our Values and what science can do, we are focused on accelerating the delivery of life-changing medicines that create enduring value for patients, society, the planet and our shareholders.

Our Purpose

We push the boundaries of science to deliver life-changing medicines.

Our Values

Our Values determine how we work together and the behaviours that drive our success. They guide our decision making and define our beliefs.

- We follow the science.
- We put patients first.
- We play to win.
- We do the right thing.
- We are entrepreneurial.

Business Review, see from page 32.

Our business model

We are a global pharmaceutical business with a science-led and patient-focused value proposition committed to excellence in the research, development, manufacturing and commercialisation of prescription medicines. We are also committed to operating sustainably, in a way that recognises the interconnection between business growth, the needs of society and the limitations of our planet. We invest resources to create financial and non-financial value that benefit patients, society, the planet and our business.

What our business model requires to be successful

Ability to acquire, retain and develop a talented and diverse workforce.

50.1%
of our senior middle management roles and above are filled by women

Global commercial presence and skills that ensure our medicines are available to patients when needed.

>125
countries where we sell our products

A leadership position in science that enables us to deliver life-changing medicines.

$10.9bn
invested in our science in 2023

Patent protection for our intellectual property for a reasonable period of time to prevent our new medicines being copied.

>90
countries where we obtained patent protection

Understanding the issues that are most important to our many and varied stakeholders.

>199,000
healthcare practitioner enquiries responded to

A supply of high-quality medicines, whether from our own operations or from suppliers.

$22.2bn
spent with suppliers

Effective collaborations that supplement and strengthen our pipeline and our efforts to achieve scientific leadership.

>1,000
collaborations worldwide

Financial strength, including access to financing and ability to bear the financial risk of investing in the life-cycle of a medicine.

$10.3bn
net cash flow from operating activities

How we add value

Improved health
Continuous scientific innovation is vital to achieving sustainable healthcare, which creates value by:

- Improving health outcomes and transforming the lives of patients who use our medicines.
- Enabling healthcare systems to reduce costs and increase efficiency.
- Improving access to healthcare and healthcare infrastructure.
- Helping develop the communities in which we operate through local employment and partnering.

Financial value
Revenue from our Product Sales and collaboration activities generates cash flow, which helps us:

- Fund our investment in science and the business to drive long-term value.
- Follow our progressive dividend policy.
- Meet our debt service obligations.

>116m[1]
Our main therapy area medicines impact more than 116 million patient lives annually.

Life-cycle of a medicine

We create financial value throughout the life-cycle of a medicine.

Investment

We invest in the discovery, development, manufacturing and commercialisation of our pipeline of innovative prescription medicines.

Revenue generation

We generate revenue from Product Sales of our existing medicines and new medicine launches, as well as from our collaboration activities. Our focus is on creating medicines that facilitate profitable future revenue generation, while bringing benefits to patients.

Reinvestment

We reinvest in developing the next generation of innovative medicines and in our business to provide the platform for future sources of revenue in the face of losses of key patents.

We also assess opportunities to invest in value-enhancing additions to our portfolio.

Research and development phases – duration: 5-15 years

1. Undertake scientific research to identify potential new medicines.
2. Preclinical studies in laboratory and animals to understand if the potential medicine is safe to introduce into humans.
3. Phase I trials with small groups of healthy human volunteers (small molecules) or patients (biologics) to understand how the potential medicine is absorbed into the body, distributed and excreted.
4. Phase II trials on small- to medium-sized groups of patients to test effectiveness and tolerability of the medicine and determine optimal dose.
5. Phase III trials in a larger group of patients to gather information about effectiveness and safety of the medicine and evaluate the overall benefit/risk profile.
6. Seek regulatory approvals for manufacturing, marketing and selling the medicine.

Launch phase – duration: 5-15 years

7. Launch new medicine while continuously monitoring, recording and analysing reported side effects.
8. Post-launch R&D to further understand the benefit/risk profile of the medicine and life-cycle management activities to understand its full potential.

Post-exclusivity – duration: 20+ years

9. Patent expiry and generic medicine entry.

This is a high-level overview of a medicine's life-cycle and is illustrative only. It is neither intended to, nor does it, represent the life-cycle of any particular medicine or of every medicine discovered and/or developed by AstraZeneca, or the probability of success or approval of any AstraZeneca medicine.

[1] The patient numbers reached for AstraZeneca medicines is an estimation of the average number of patients on our medicines in a given year. The calculation is based upon the volume that we manufacture globally, converted using the number of days of therapy (DoT) and the average patient compliance with their treatment. If a patient is treated by more than one AstraZeneca product they are double-counted.

Our Strategy and Key Performance Indicators

Our ambition is to launch at least 15 new medicines by 2030. Three were approved in 2023.

Our Growth Through Innovation strategy is built on the fact that AstraZeneca:

- > is science and innovation led
- > is focused on our chosen therapy areas: Oncology; BioPharmaceuticals (comprising Cardiovascular, Renal & Metabolism (CVRM), Respiratory & Immunology (R&I) and Vaccines & Immune Therapies (V&I)); and Rare Disease
- > is focused on patients and a diversified portfolio that spans across primary care, specialty care and rare disease
- > has global strength with a balanced presence across regions
- > has a commitment to people, society and the planet.

1. Science and Innovation

2. Growth and Therapy Area Leadership

3. People and Sustainability

Achieve Group Financial Targets

We have three strategic priorities, whose effective delivery will help us achieve our financial targets.

Our capital allocation priorities include investing in the business and pipeline, including potentially value-enhancing business development opportunities; maintaining a strong, investment-grade credit rating; and supporting a progressive dividend policy, balancing opportunities for growth and maintaining a strong balance sheet.

2030 Bold Ambition

Our bold aspiration is to be pioneers in science, lead in our disease areas, and transform patient outcomes. Between 2023 and 2030, we aim to deliver at least 15 new medicines, industry-leading growth and be carbon negative. Our 2030 Bold Ambition workstreams focus on accelerating our strategic priorities, exploring new ones and building for the future.

Our Key Performance Indicators and remuneration

We measure our productivity and success against our Key Performance Indicators (KPIs), which are aligned to our strategic priorities. Several KPIs in this section are used to measure the remuneration of Executive Directors, allowing us to disclose aggregated targets without disclosing sensitive commercial information at the individual KPI level. Any variances between the KPI and values used in determining remuneration are explained in the Directors' Remuneration Report from page 102. Since 2021, we have included the delivery of our Ambition Zero Carbon commitments in our executive incentive arrangements.

Achieve Group Financial Targets

Key Performance Indicators

Cash generation is a key driver of long-term shareholder returns and facilitates reinvestment in our pipeline, which is critical for delivering new medicines and future value.

Earnings per share (EPS) is an important profitability metric and a key driver of shareholder value.

Net cash flow from operating activities

$10,345m ●

2023	**$10,345m**
2022	$9,808m
2021	$5,963m

Actual growth
2023 +5%
2022 +64%
2021 +24%

Reported EPS

$3.84

2023	**$3.84**
2022	$2.12
2021	$0.08

Actual growth
2023 +81%
2022 n/m
2021 -97%

CER growth
2023 +96%
2022 n/m
2021 -84%

Core EPS

$7.26 ●

2023	**$7.26**
2022	$6.66
2021	$5.29

Actual growth
2023 +9%
2022 +26%
2021 +32%

CER growth
2023 +15%
2022 +33%
2021 +37%

For more information on our Core measures, see the Financial Review from page 58.

For details of how Achieve Group Financial Targets are considered when calculating the annual bonus, see page 111.

KPI key

● Used for remuneration of Executive Directors

Science and Innovation

Our focus areas

> Creating the next generation of therapeutics using an array of drug modalities, for example, advanced biologics, genomic medicines and nucleotide-based and cell therapies.
> Leading in convergence of science, data and technology.
> Advancing our pipeline.

How our strategy responds to global trends

To ensure we are able to respond to the increasing burden of disease and maximise advances in science and digital technologies, we are:

> Advancing our understanding of disease biology to help uncover novel drivers of disease, through multi-omics, functional genomics and innovations in AI and machine learning.
> Progressing an early pipeline consisting of numerous new drug modalities, including ADCs, antibodies (e.g. bispecific, inhaled fragment and cell depleting monoclonal), cell therapies, genomic medicines, PROteolysis TArgeting Chimeras (PROTACs), oligonucleotides and T-cell engagers.
> Creating cutting-edge models to generate data that are more relevant to patients, to better predict the success of our molecules in the clinic.
> Pioneering clinical innovation to design and deliver patient-centric clinical trials that improve the patient and site team experience while optimising the use of data, digital and AI to improve patient outcomes.
> Embedding AI across R&D, from target identification to clinical development, to deliver medicine to patients faster than ever before.

"Our bold aspiration is to be pioneers in science, lead in our disease areas, and transform patient outcomes."

How we progressed in 2023

> Three NME approvals in 2023: *Airsupra*, *Truqap* and *Wainua*. *Voydeya* was approved in January 2024.
> Achieved 56 regulatory events: 31 NME and major LCM submissions and 25 approvals in major markets (US, EU, China and Japan).
> Secured 30 pipeline progression events: six NME Phase II starts/progressions and 24 NME and major LCM Phase III investment decisions.
> Our pipeline includes 178 projects, of which 160 are in the clinical phase of development.
> At the end of the year, we had 17 NME projects in pivotal trials or under regulatory review covering 31 indications.
> 18 projects were discontinued.
> Launched Evinova, a health-tech business intended to accelerate innovation across the life sciences sector, the delivery of clinical trials and better health outcomes.

2030 Bold Ambition workstreams

Accelerating thinking around our initiatives, exploring new ones and identifying the best ways to grow the business:

> China innovation – collaborating to support development of innovation in China.
> Rare cancer – combining the capabilities of our Oncology and Rare Disease teams.
> Genomic medicine – collaborating across our teams to unlock the promise of genomic medicine and improve the lives of people living with a rare genetic disease.
> Cell therapy – scaling our efforts to use cell therapy to halt and reverse disease.
> Immune diseases – expanding our capabilities and platforms to focus on treating diseases with high unmet medical need.

Key Performance Indicators

Our science measures incentivise the development of NMEs and the maximisation of the potential of existing medicines. Pipeline progression events (Phase II NME starts/progressions and Phase III investment decisions) measure innovation and sustainability. Regulatory events (regulatory submissions and approvals) demonstrate the advancement of this innovation to patients and the value to the Group.

Pipeline progression events

30[1]

[1] 30 against our Group scorecard for determining annual bonus.
[2] 25 against our Group scorecard for determining annual bonus.
[3] 26 against our Group scorecard for determining annual bonus.

Regulatory events

56[1]

[1] 46 against our Group scorecard for determining annual bonus.
[2] 50 against our Group scorecard for determining annual bonus.
[3] 37 against our Group scorecard for determining annual bonus.

For more information, see:

Therapy Area Review from page 16 and Business Review from page 32.

2023 Group scorecard assessment on page 111 for performance against the Group scorecard.

Our Strategy and Key Performance Indicators *continued*

Growth and Therapy Area Leadership

Our focus areas

> Delivering industry-leading growth across our therapy areas and regions.
> Embracing digital technologies and data to transform the patient journey, putting them at the heart of everything we do.
> Continuing with the next phase of our Operations 2025 programme, including implementing next-generation manufacturing technologies and smart factory capabilities: Operations 2030.

How our strategy responds to global trends

To ensure we can respond to the increasing demand for healthcare, downward pressure on prices and increasing control that people have over their own healthcare, we are:

> Fostering a patient-focused approach and embedding patient insights across our organisation, building integrated therapy area ecosystem models.
> Engaging with policymakers to support improvements in sustainable access, coverage, care delivery and patient care outcomes.
> Leveraging technology across prevention and awareness, diagnosis, treatment, post-treatment and wellness to deliver better patient outcomes.
> Partnering with industry, governments and others to adopt value-based pricing solutions and bring new medicines to market more quickly.
> Pursuing a strong patent strategy that builds robust patent estates to protect our pipeline and products while defending and enforcing patent rights.
> Harnessing the power of digital throughout our end-to-end supply chain through digital drug development to accelerate development lead times.

How we progressed in 2023

> Total Revenue, comprising Product Sales, Alliance Revenue and Collaboration Revenue, increased by 3% (6% at CER) to $45,811 million. Total Revenue, excluding COVID-19 medicines[1], increased 13% (15% at CER) to $45,488 million.
> Alliance Revenue increased by 89% (89% at CER) to $1,428 million.
> Collaboration Revenue decreased by 1% (1% at CER) to $594 million.
> Grew Total Revenue across our Therapy Areas: Oncology 19% (21% at CER) to $18,447 million; CVRM 15% (18% at CER) to $10,628 million; and R&I grew 7% (10% at CER) to $6,404 million. Our V&I unit declined by 72% (71% at CER) to $1,357 million and Rare Disease grew by 10% (12% at CER) to $7,764 million.
> Total Revenue in the US grew by 6% to $19,077 million. In Emerging Markets it grew by 2% (9% at CER) to $12,025 million and in Europe grew by 10% (8% at CER) to $9,611 million.

2030 Bold Ambition workstreams

Accelerating thinking around our initiatives, exploring new ones and identifying the best ways to grow the business:

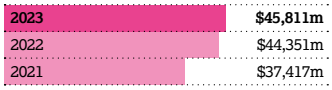
> Transforming care – supporting health systems to identify, diagnose and treat more people living with chronic and rare diseases, and cancer.
> US growth – transforming patient outcomes by accelerating innovation in customer engagement, expanding participation in clinical trials and ensuring equitable access to our medicines.
> Operations 2030 – bringing our pioneering scientific innovation to patients through agile, connected and sustainable supply chains.

Key Performance Indicators

Our Total Revenue measure reflects the importance of incentivising sustainable growth in both the short and longer term.

Total Revenue

$45,811m



Actual growth	CER growth
2023 +3%	**2023 +6%**
2022 +19%	2022 +25%
2021 +41%	2021 +38%

For details of how Total Revenue is considered when calculating the annual bonus, see from page 111.

"We have global strength with a balanced presence across regions and a diversified portfolio."

[1] The COVID-19 medicines are *Vaxzevria*, *Evusheld*, and AZD3152 – the COVID-19 antibody currently in development.

People and Sustainability

Our focus areas

> Maintaining employee engagement by continuing to make AstraZeneca a great place to work.
> Focusing on delivering our inclusion and diversity strategy, and learning and development programmes.
> Ensuring we operate in the smartest way and increase the speed of delivery of medicines to patients through our business transformation programmes.
> Playing our part in protecting the planet by realising our ambition to become carbon negative for all residual emissions from 2030.
> Leading the way in our efforts to improve access to healthcare and build health system resilience.
> Harnessing the power of science and innovation in ways that positively impact patients, healthcare systems and the environment.
> Advancing our sustainability priorities, particularly health equity and health system resilience, as well as addressing the effects of the twin climate and nature crises and the impact on global health and healthcare.

How our strategy responds to global trends

To ensure we are able to deliver our strategy, build trust in AstraZeneca and contribute to the health of society and the planet, we are:

> Creating an inclusive and equitable environment where people belong, using our diversity as a competitive advantage.
> Fostering a culture of lifelong learning, strengthening and evolving our capabilities, and instilling confidence to challenge convention and explore possibilities.
> Simplifying the way we work, driving productivity, and optimising digital and technology to deliver a better experience for our people and better outcomes for patients.
> Working towards a future where all people have access to affordable, sustainable and innovative healthcare.
> Playing our part in protecting the planet by reducing GHG emissions from our global operations and fleet by 98% by 2026 and halving our entire value chain footprint by 2030.
> Empowering employees through our Code of Ethics to make decisions in the best interests of the Group and society.

"We're unlocking the power of what science can do for people, society and the planet."

How we progressed in 2023

> We continued to invest in our people to ensure we recruit, retain and develop a talented workforce.
> In 2023, we delivered a strong performance across the key priorities of our People and Sustainability strategy pillar.
> We continued to score highly in our Pulse surveys for questions relating to our Purpose, direction, patient centricity and employee commitment to our success.
> We demonstrated our continued commitment to investing in global collaborations, Group initiatives, and local partnerships to strengthen health systems.
> We maintained a leading role in industry efforts to address the effects of climate change on our planet and accelerate the delivery of net-zero healthcare, while improving health outcomes and reducing our environmental impact.
> Our Ambition Zero Carbon strategy delivered further reductions in our GHG emissions across our value chain – Scopes 1, 2 and 3 – and we are on track with our environmental commitments.

2030 Bold Ambition workstreams

Accelerating thinking around our initiatives, exploring new ones and identifying the best ways to grow the business:

> Employee experience – being a great place to work, where people feel a sense of community, collaboration and purpose.
> Sustainability – going 'beyond climate' to drive a nature restoration approach to all we do, while ensuring that the most vulnerable people in society have access to our medicines.
> Technology – identifying, prioritising and adopting leading-edge technologies, while upskilling and empowering our people to drive productivity.
> Axial project – rethinking how we manage our supply chains, manufacturing, customer experience, financial reporting, financial planning and people management.
> Business transformation – smarter, more innovative ways of working and exploring how we can become more productive.

Key Performance Indicators BV

Our People and Sustainability strategy is built around two priorities: Contribution to the enterprise and Contribution to society.

Our Contribution to the enterprise KPI is based on our Pulse survey measure of those employees who believe that AstraZeneca is a great place to work.

Our Contribution to society KPI is based on our sustainability scorecard. Ratings for this KPI reflect our success in achieving our sustainability goals.

Our 2023 scorecard is based on nine focus areas that guide our sustainability strategy and show where we can have the most positive impact. These are detailed in our Sustainability Report: www.astrazeneca.com/sustainability.

Employee belief that AstraZeneca is a great place to work[1]

86%

2023	86%
2022	86%
2021	85%

[1] Source: November Pulse survey for each year.

Sustainability scorecard performance[2]

25/27

Green
Amber
Red

2023	25/27
2022	7/9
2021	10/12

[2] In 2023, we assessed our performance against 27 publicly available targets across our three integrated sustainability priority pillars. At least 90% of targets need to be 'on plan' to achieve a scorecard rating of green; at least 70% for amber; and red signifies any percentage below this.

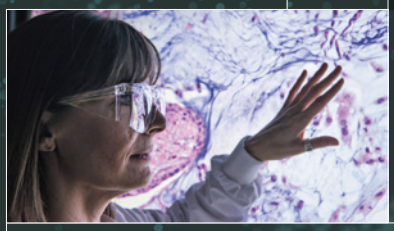
For more information, see People and Sustainability from page 46.

For more information on our KPIs, including definitions, methodology and restatements, see our Sustainability Data Summary at www.astrazeneca.com/sustainability.

Oncology

We are leading a revolution in oncology to redefine cancer care. Our ambition is to follow the science to discover, develop and deliver life-changing treatments that transform outcomes and increase the potential for cures.

T-cell engager molecule directing a T-cell to a cancer cell



Total Revenue

$18,447m

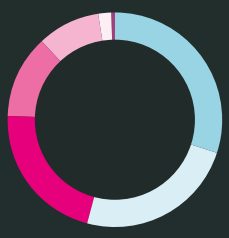
up 19% (21% at CER)
2022: $15,539m
2021: $13,555m[1]

2023 overview

- Performance driven by rapid and broad market penetration of our oncology medicines with 10 major market approvals across six medicines, including *Imfinzi*, *Enhertu*, *Lynparza*, *Calquence*, *Imjudo* and a new medicine approved for the first time, *Truqap*.
- Nine positive Phase III trial readouts across tumour types including the first positive pivotal results for datopotamab deruxtecan (Dato-DXd) in lung and breast cancers.

Therapy area world market
(MAT Q3-23)

$187.0bn
Annual worldwide market value



- Small molecule targeted agents **$56.2bn**
- Immune checkpoint inhibitors **$45.1bn**
- Monoclonal antibodies (mAbs) **$40.0bn**
- Chemotherapy **$23.3bn**
- Hormonal therapies **$17.7bn**
- PARP inhibitors **$3.5bn**
- Other oncology therapies **$1.0bn**

Unmet medical need and world market

2nd
Cancer is the second leading cause of death worldwide.

16.3m
By 2040, cancer is expected to account for 16.3 million deaths annually across the globe.

[1] Total Revenue from *Koselugo* is included within Rare Disease for 2022 and 2023 reporting, previously reported within Oncology. The 2021 comparatives and growth rates shown for each therapy area have been calculated as though these changes had been implemented in 2021.

Source: IQVIA.
AstraZeneca focuses on specific segments within this overall therapy area market. Oncology Therapy Area submarket totals ($186.8bn) do not sum up exactly to the Therapy Area total ($187.0bn) due to rounding.

Our strategy in Oncology

We strive to push the boundaries of science to change the practice of medicine and transform the lives of patients living with cancer through:

1. Scientific platforms to attack cancer from multiple angles, including targeting cancer cells directly and activating the immune system. We use monotherapy and combination approaches to drive deeper, more durable, responses:
   a. Tumour drivers and resistance – targeting genetic mutations and resistance mechanisms that enable cancer cells to survive and proliferate.
   b. DNA damage response – targeting the DNA repair process to block cancer cells reproducing.
   c. Antibody Drug Conjugates (ADCs) – highly potent cancer-killing agents delivered directly to cancer cells via a linker attached to a targeted antibody.
   d. Epigenetics – targeting changes to genome expression caused by cancer.
   e. Immuno-oncology – activating the body's own immune system to help fight cancer.
   f. Cell therapies – harnessing living cells to target cancer.
   g. Immune engagers – redirecting the immune system's T-cells to the tumour and amplifying that patient's own anti-cancer immune response.
2. Treating cancer earlier where the greatest opportunity for cure exists and building expertise and leadership in key tumour types.
3. Collaborating to harness transformational technologies, including computational pathology, circulating tumour DNA (ctDNA) testing, digital health and data science/AI.
4. Leveraging our global footprint – to make cancer therapies available to every eligible and appropriate patient.

Full details are given in the Development Pipeline and Patent Expiries of Key Marketed Products Supplements on our website, www.astrazeneca.com/annualreport2023.

Key marketed products

Product	Disease	Total Revenue	Commentary
Tagrisso (osimertinib)	Lung cancer	↑ $5,799m, up 7% (9% at CER)	Approved in 101 countries for the adjuvant treatment of patients with early-stage EGFRm NSCLC and in 99 countries for both the 1st- and 2nd-line treatment of advanced EGFRm NSCLC.
Imfinzi[2] (durvalumab)	Lung cancer Bladder cancer Liver cancer	↑ $4,237m, up 52% (55% at CER)	Approved in 87 countries in the curative-intent setting of unresectable, Stage III NSCLC after chemoradiotherapy (CRT) and in extensive-stage small cell lung cancer (SCLC) in 85 countries. Also approved in combination with gemcitabine and cisplatin as treatment for patients with locally advanced or metastatic biliary tract cancer (BTC) in 59 countries, and in unresectable hepatocellular carcinoma (uHCC) in combination with *Imjudo* in 41 countries (*Imfinzi* monotherapy also approved in certain countries). Also approved in combination with *Imjudo* and platinum-based chemotherapy for NSCLC in 27 countries, and for previously treated advanced bladder cancer in some countries.
Lynparza (olaparib)	Ovarian cancer Breast cancer Pancreatic cancer Prostate cancer	↑ $3,056m, up 2% (4% at CER)	Approved in 97 countries as maintenance therapy for platinum-sensitive relapsed ovarian cancer and 1st-line BRCAm ovarian cancer, and in 94 countries with bevacizumab for homologous recombination repair deficient (HRD)-positive advanced ovarian cancer. Approved in 97 countries for gBRCAm, HER2-negative early breast cancer (approved in the metastatic setting in 80 countries). Approved in 94 countries for gBRCAm metastatic pancreatic cancer. Approved in 96 countries for homologous recombination repair (HRR) gene-mutated mCRPC (BRCAm only in certain countries) and in 59 countries with abiraterone for 1st-line mCRPC.
Calquence (acalabrutinib)	Mantle cell lymphoma (MCL) Chronic lymphocytic leukaemia (CLL)	↑ $2,514m, up 22% (23% at CER)	Approved in 89 countries for the treatment of CLL and in 46 countries for the treatment of adult patients with relapsed or refractory MCL who have received at least one prior therapy.
Enhertu (trastuzumab deruxtecan)	Breast cancer Gastric cancer Lung cancer	↑ $1,283m, up 113% (114% at CER)	Approved in more than 55 countries for HER2-positive metastatic breast cancer following one or more prior anti-HER2-based regimen. Also approved in more than 40 countries for HER2-low metastatic breast cancer following chemotherapy. Approved in more than 30 countries for previously treated HER2-mutant metastatic NSCLC and HER2-positive advanced gastric or gastroesophageal junction adenocarcinoma.
Orpathys (savolitinib)	Lung cancer	↑ $46m, up 37% (44% at CER)	Approved in China and Macau for treatment of locally advanced or metastatic NSCLC with MET gene alterations.
Truqap (capivasertib)	Breast cancer	$6m	Approved in the US in combination with *Faslodex* (fulvestrant) for treatment of patients with hormone receptor (HR)-positive, HER2-negative locally advanced or metastatic breast cancer with PIK3CA, AKT1 or PTEN gene alterations following disease progression or recurrence.
Other products			
Zoladex (goserelin acetate implant)	Prostate cancer Breast cancer	↑ $986m, up 3% (9% at CER)	
Faslodex (fulvestrant)	Breast cancer	↓ $297m, down 11% (6% at CER)	

[2] *Imfinzi* Total Revenue includes revenue of *Imjudo* which commenced in 2022.

2023 review – strategy in action

Lung cancer

Scientific advances are strengthening the potential of our medicines to offer cure and long-term survival in lung cancer with a focus on early detection and precision medicine. Our comprehensive portfolio includes leading medicines *Tagrisso*, *Imfinzi*, *Imjudo*, *Enhertu* and *Orpathys*, along with a promising pipeline of potential new medicines and combinations across diverse mechanisms of action. AstraZeneca lung cancer data were featured in four plenary presentations at major medical congresses this year.

- Positive results from the FLAURA2 Phase III trial showed *Tagrisso* with the addition of chemotherapy demonstrated a statistically significant and clinically meaningful improvement in progression-free survival (PFS) versus *Tagrisso* monotherapy in advanced epidermal growth factor receptor mutated (EGFRm) non-small cell lung cancer (NSCLC) and was ultimately granted Priority Review in the US based on these results. Furthermore, positive overall survival results from the ADAURA Phase III trial showed *Tagrisso* achieved an unprecedented overall survival benefit for adjuvant early-stage EGFRm NSCLC, becoming the first Phase III trial to demonstrate survival benefit in this setting.
- We reported positive results from the TROPION-Lung01 Phase III trial which showed that Dato-DXd demonstrated a statistically significant PFS benefit versus docetaxel in patients with previously treated locally advanced or metastatic NSCLC, and a clinically meaningful benefit in those with non-squamous tumours. We also reported results from TROPION-Lung02 and TROPION-Lung04 Phase Ib trials which showed Dato-DXd in combination with immunotherapy (pembrolizumab or *Imfinzi*, respectively), with or without chemotherapy, demonstrated encouraging responses and no new safety signals in the 1st-line advanced NSCLC setting. Dato-DXd is jointly developed and commercialised with Daiichi Sankyo.
- Positive Phase III results from the AEGEAN Phase III trial showed *Imfinzi* significantly improved event-free survival in patients with NSCLC, increasing the time patients lived without recurrence or progression before and after surgery, and regulatory submission was accepted in the US based on these results. Additionally, *Imfinzi* in combination with *Imjudo* was approved in the EU for patients with metastatic NSCLC based on the POSEIDON Phase III trial. We also reported that the PACIFIC-2 Phase III trial for *Imfinzi* concurrently administered with CRT did not achieve statistical significance for PFS versus CRT alone in unresectable, Stage III NSCLC.
- *Enhertu* became the first human epidermal growth factor receptor 2 (HER2)-directed therapy approved in the EU for patients with HER2-mutant advanced NSCLC based on results from the DESTINY-Lung02 trial. *Enhertu* is jointly developed and commercialised with Daiichi Sankyo.
- Our novel immuno-oncology bispecific development programme continued to advance with the initiation of the eVOLVE-Lung02 Phase III trial investigating volrustomig, which simultaneously targets PD-1 and CTLA-4, as a 1st-line treatment in combination with chemotherapy in metastatic NSCLC.

Breast cancer

We are aiming to redefine clinical practice and transform outcomes across all subtypes and stages of breast cancer. Ultimately, it is our ambition to contribute to eliminating breast cancer as a cause of death. Our comprehensive portfolio of approved medicines, including *Truqap*, *Enhertu*, *Lynparza*, *Faslodex* and *Zoladex*, and promising breast cancer medicines in development, including *Imfinzi*, Dato-DXd and camizestrant, leverage different mechanisms of action to address the biologically diverse breast cancer tumour environment.

- Positive results from the TROPION-Breast01 Phase III trial showed that Dato-DXd provided a statistically significant and clinically meaningful PFS benefit versus investigator's choice chemotherapy for patients with inoperable or metastatic HR-positive, HER2-low or negative metastatic breast cancer previously treated with endocrine-based therapy and at least one systemic therapy. Updated results from the BEGONIA Phase Ib/II trial showed that Dato-DXd in combination with *Imfinzi* demonstrated robust and durable tumour responses in the 1st-line treatment of patients with metastatic triple-negative breast cancer.
- Our newest Oncology medicine, *Truqap*, was approved in the US in combination with *Faslodex* as the first AKT-inhibitor for patients with HR-positive, HER2-negative locally advanced or metastatic breast cancer with certain gene alterations following disease progression or recurrence, based on the CAPItello-291 Phase III trial. The US regulatory submission was granted Priority Review in June 2023.
- *Enhertu* was approved in the EU and China as the first HER2-directed therapy for patients with HER2-low metastatic breast cancer based on the DESTINY-Breast04 Phase III trial.
- Two Phase III trials (CAMBRIA-1 and CAMBRIA-2) were initiated to investigate camizestrant, our potential next-generation selective estrogen receptor (ER) degrader, as an adjuvant therapy for patients with ER-positive, HER2-negative early breast cancer.

Genitourinary/Gynaecological cancers

In genitourinary cancers, we aim to transform treatment paradigms through the delivery of innovative treatments to help many more patients than today, including establishing *Lynparza* plus abiraterone and prednisone as a standard of care (SoC) in 1st-line metastatic castration-resistant prostate cancer (mCRPC). In gynaecological (GYN) cancers, we will continue to redefine survival expectations, introducing new medicines beyond ovarian cancer across multiple GYN tumours, expanding into endometrial with *Imfinzi* and into cervical cancer.

- Positive results from the DUO-O Phase III trial showed treatment with a combination of *Lynparza*, *Imfinzi*, chemotherapy and bevacizumab demonstrated a statistically significant improvement in PFS versus chemotherapy plus bevacizumab in patients with advanced ovarian cancer without tumour breast cancer gene (BRCA) mutations. Additionally, results from the DUO-E Phase III trial showed that *Imfinzi* plus chemotherapy in combination with *Lynparza* reduced the risk of disease progression or death versus chemotherapy in advanced or recurrent endometrial cancer, becoming the first global Phase III trial of immunotherapy plus poly (ADP-ribose) polymerase (PARP) inhibition to demonstrate clinical benefit in this setting.
- *Lynparza* plus abiraterone and prednisone was approved in the US and Japan for the treatment of BRCA-mutated (BRCAm) metastatic castration-resistant prostate cancer, based on the Phase III PROpel trial.
- Our next wave of potential new medicines includes saruparib, a PARP1 selective agent being investigated in combination with novel hormonal agents in metastatic castrate-sensitive prostate cancer (EvoPAR-Prostate01 Phase III trial), and volrustomig, a potential new treatment being tested in advanced cervical cancer (eVOLVE-Cervical Phase III trial).

Over 30m

The global burden of cancer is expected to grow, with over 30 million newly diagnosed patients estimated by 2040. Two thirds of those patients are expected to be in low-to-middle income countries.

Digital healthcare solutions for early risk detection of lung cancer
Through our A.Catalyst Network, AstraZeneca partnered with AI solution provider Qure.ai to use their AI platform qXR for detecting incidental lung nodules in routine chest x-rays. The solution is integrated with medical imaging systems, providing real-time malignancy risk score indicating risk of lung cancer that can be referred for further diagnostics. The technology, which has been implemented in 29 countries across 335 sites and has analysed more than 1.5 million chest x-rays (as at December 2023). As part of our partnership with the World Economic Forum's EDISON Alliance, we have committed to screening five million patients for lung cancer risk using AI technology.

Gastrointestinal cancers

We have a broad and robust development programme for the treatment of gastrointestinal cancers in many stages and disease types, including several positive results as well as approvals across multiple medicines.

- We reported positive high-level results for the EMERALD-1 Phase III trial which showed *Imfinzi*, in combination with transarterial chemoembolisation (TACE) and bevacizumab, demonstrated a statistically significant and clinically meaningful improvement in PFS versus TACE alone in liver cancer patients eligible for embolisation. This is the first global Phase III trial to show improved clinical outcome for systemic therapy in combination with TACE in this setting, and the trial continues to follow the secondary endpoint of overall survival.
- Positive results from the MATTERHORN Phase III trial showed treatment with *Imfinzi*, in combination with standard of care (SoC) FLOT neoadjuvant chemotherapy, significantly improved pathologic complete response versus neoadjuvant chemotherapy in gastric and gastroesophageal junction cancers.
- *Imfinzi* was approved in China for the 1st-line treatment of adult patients with unresectable or metastatic BTC in combination with chemotherapy, based on the TOPAZ-1 Phase III trial, and in the EU in combination with *Imjudo* for the treatment of patients with advanced or uHCC, based on the Phase III HIMALAYA trial.
- We accelerated our ADC development programme, entering an exclusive global licence agreement with KYM Biosciences to develop AZD0901, a potentially first-in-class ADC targeting Claudin 18.2, with interim results showing promising early clinical efficacy.
- For our novel bispecific programme we initiated the ARTEMIDE-Biliary01 Phase III trial, assessing our novel anti-PD-1/anti-TIGIT bispecific antibody rilvegostomig, in combination with chemotherapy, in patients with biliary tract cancer.

Blood cancers

In haematology, we are using our six scientific platforms to develop and test novel investigational agents designed to target underlying drivers. *Calquence*, our next-generation BTK inhibitor, has treated 50,000 patients globally with approvals in 89 countries across multiple haematological diseases.

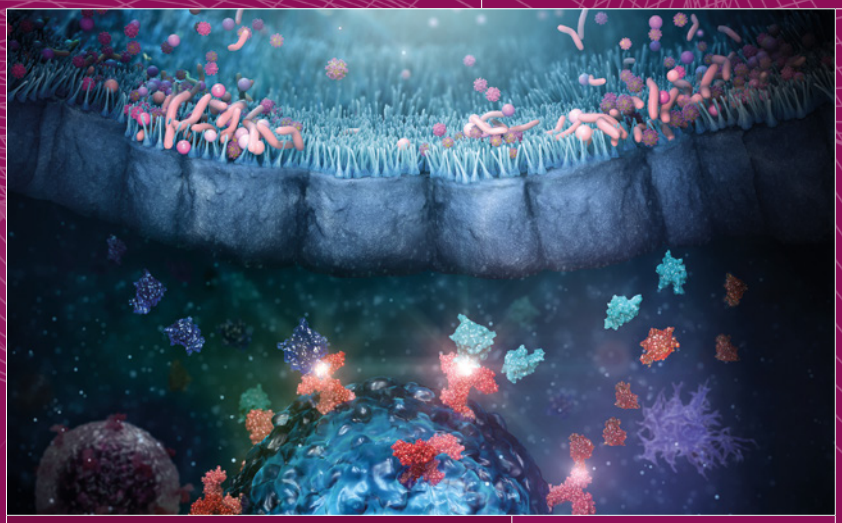
- *Calquence* was approved for the first time in China for the treatment of CLL or SLL, based on the ASCEND global Phase III trial and a Phase I/II trial in China.
- The tablet formulation of *Calquence* was approved in the EU for CLL and is designed to be co-administered with gastric acid-reducing agents, allowing greater patient and physician choice.
- Promising interim results from a Phase I trial of AZD0486, a CD19/CD3 next-generation T-cell engager, demonstrated a high complete response rate in patients with relapsed or refractory follicular lymphoma with a manageable safety profile.
- We initiated an exclusive global licence with LaNova Medicines for AZD0305 (LM305), a GPRC5D ADC, with the aim to accelerate our entry into multiple myeloma.

Pan-tumour

Together with Daiichi Sankyo, we are exploring the potential role of HER2-directed therapies in treating multiple solid tumour types. Positive results from the DESTINY-PanTumour02 Phase II trial showed *Enhertu* demonstrated clinically meaningful survival across multiple HER2-expressing advanced solid tumours including either biliary tract, bladder, cervical, endometrial, ovarian or pancreatic cancers or other tumours. In January 2024, *Enhertu* was granted Priority Review in the US for patients with a range of metastatic HER2-positive solid tumours.

BioPharmaceuticals

Our ambition is to transform care for billions of people living with chronic diseases and deliver long-lasting immunity. We are working to intervene earlier to protect vital organs, slow or reverse disease progression, and achieve remission for often degenerative, debilitating and life-threatening conditions, so many more people can live better, healthier lives.



The epithelium is the first line of defence in the human body; interaction between the airway epithelium and bacteria, viruses, allergens or pollution can result in the release of epithelial cytokines, driving inflammation.

Cardiovascular, Renal & Metabolism

Total Revenue

$10,628m

up 15% (18% at CER)
2022: $9,211m
2021: $8,103m[1]

Our ambition is to improve care to save lives for the millions living with cardiovascular, renal and metabolic (CVRM) diseases, stop disease progression and, ultimately, pave the way to a cure.

2023 overview

> *Forxiga*, the number one SGLT2 inhibitor worldwide by volume, expanded its label from type 2 diabetes (T2D) and chronic kidney disease (CKD) to address cardiovascular (CV) death and hospitalisation for a broader range of heart failure (HF) populations.
> Acquisition of CinCor and exclusive licence agreement with Eccogene bolstered the cardiorenal pipeline in hypertension, obesity, T2D and other cardiometabolic conditions.
> Eplontersen demonstrated sustained benefit in Phase III trial for hereditary transthyretin-mediated amyloid polyneuropathy (ATTRv-PN) through 85 weeks.

Unmet medical need and world market

20 million
deaths per year due to CVRM diseases.

4 of the 10
top causes of death globally are due to CVRM diseases.

[1] Total Revenue from *Andexxa* is included within BioPharmaceuticals: CVRM for 2023 and 2022 reporting, previously reported within Rare Disease. The 2021 comparatives and growth rates shown for each therapy area have been calculated as though these changes had been implemented in 2021.

Respiratory & Immunology

Total Revenue

$6,404m

up 7% (10% at CER)
2022: $5,963m
2021: $6,049m

Our ambition is to transform respiratory and immunology care for patients, moving beyond symptom control to disease modification, remission and, one day, cure.

2023 overview

> Continued strong portfolio growth despite *Symbicort* patent expiry in the US, significant portfolio transformation, where key launch brands (*Breztri*, *Fasenra*, *Tezspire*, *Saphnelo*) represented circa 50% of the total portfolio at the year end.
> *Fasenra* met the primary endpoint in the MANDARA Phase III trial demonstrating non-inferior rates of remission compared to mepolizumab in eosinophilic granulomatosis with polyangiitis (EGPA) patients.
> Collaboration with Quell Therapeutics and proposed acquisition of Gracell Biotechnologies to boost the Immunology portfolio.

Unmet medical need and world market

>40 million
people worldwide have the immune-mediated diseases we are targeting, which carry a high disease burden.

3rd
Chronic obstructive pulmonary disease (COPD) is the world's third leading cause of death.

Vaccines & Immune Therapies

Total Revenue

$1,357m

down 72% (71% at CER)
2022: $4,836m
2021: $4,779m

Our ambition is to develop and deliver transformative vaccines and antibodies, providing long-lasting immunity to millions, and supporting sustainable and resilient healthcare systems worldwide by reducing the burden of frequent infectious diseases.

2023 overview

> *Beyfortus* approved in the US and in China for the prevention of respiratory syncytial virus (RSV) lower respiratory tract disease (LRTD) in infants and RSV lower respiratory tract infection (LRTI) in neonates and infants entering or during their first RSV season, respectively.
> Supplemental Biologics Licence Application (sBLA) for the approval of a self- or caregiver-administered option for *FluMist* Quadrivalent accepted for review by the FDA.
> Proposed acquisition of Icosavax bolsters the pipeline with investigational RSV and human metapneumovirus (hMPV) combination vaccine.
> Emergency Use Authorisation in the US requested for the investigational long-acting antibody sipavibart for pre-exposure prophylaxis of COVID-19.

Unmet medical need and world market

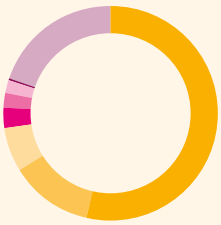
Up to 4%
of the population is immunocompromised and is at a higher risk of hospitalisation from COVID-19 than the general population.

One billion
cases of seasonal influenza annually.

Cardiovascular, Renal & Metabolism

Therapy area world market
(MAT Q3-23)

$286.1bn
Annual worldwide market value



- Diabetes **$159.3bn**
- High blood pressure **$37.1bn**
- Abnormal levels of blood cholesterol **$19.2bn**
- CKD **$9.4bn**
- Thrombosis **$6.9bn**
- CKD-associated anaemia **$5.3bn**
- Hyperkalaemia **$0.9bn**
- Other CV **$58.0bn**

Source: IQVIA.
AstraZeneca focuses on specific segments within this overall therapy area market. Sales for CKD ($9.4bn) and CKD-associated anaemia ($5.3bn) fall outside the CVRM total market. All sales for CKD-associated anaemia ($5.3bn) fall within the CKD market and should not be double counted.

Full details are given in the Development Pipeline and Patent Expiries of Key Marketed Products Supplements on our website, www.astrazeneca.com/annualreport2023.

Key marketed products

Product	Disease	Total Revenue	Commentary
Farxiga/*Forxiga* (dapagliflozin)	T2D HF CKD	↑ $5,997m, up 37% (39% at CER)	*Forxiga* is the number one prescribed SGLT2i worldwide by volume. In August, *Forxiga* received a 1st-line recommendation from the 2023 European Society of Cardiology Treatment Guidelines for HF across the range of ejection fractions.
Brilinta/*Brilique* (ticagrelor)	Acute coronary syndromes (ACS)	↓ $1,324m, down 2% (1% at CER)	*Brilinta* plus aspirin is currently approved in more than 115 countries for the prevention of atherothrombotic events in adult patients with ACS and in 80 countries for the secondary prevention of CV events among high-risk patients who have experienced a heart attack.
Lokelma (sodium zirconium cyclosilicate)	Hyperkalaemia (HK)	↑ $412m, up 43% (46% at CER)	*Lokelma* is now approved in 56 markets and is market leader by value and days-of-therapy volume in branded HK.
Roxadustat	Anaemia of CKD	↑ $276m, up 37% (44% at CER)	
Andexxa/*Ondexxya* (andexanet alfa)	Factor Xa (FXa) inhibitor reversal agent	↑ $182m, up 14% (15% at CER)	In June 2023, the *Andexxa* Phase IV (Annexa-I) trial stopped early after achieving pre-specified criteria on haemostatic efficacy versus usual care.
Other products			
Crestor (rosuvastatin calcium)	Dyslipidaemia Hyper-cholesterolaemia	↑ $1,110m, up 6% (12% at CER)	
Seloken/*Toprol-XL* (metoprolol succinate)	Hypertension HF Angina	↓ $641m, down 26% (20% at CER)	
Onglyza family, (exenatide, *Qtern*, *Symlin*, *Atacand* and other established brands)	n/a	↓ $227m, down 12% (8% at CER)	
Bydureon (exenatide XR injectable suspension)	T2D	↓ $163m, down 42% (42% at CER)	
Wainua (eplontersen)	polyneuropathy of hereditary transthyretin-mediated amyloidosis	n/a	On 21 December in the USA, *Wainua* (eplontersen) was granted its first-ever regulatory approval for the treatment of adults with polyneuropathy of hereditary transthyretin-mediated amyloidosis.

Our strategy in CVRM

Our ambition is to improve and save lives for the millions of people who are living with the complexities of CVRM diseases.

> The impact of CVRM diseases on people, society and our planet is immense and growing, yet these diseases remain underdiagnosed, undertreated, and their interconnections under-recognised.
> By understanding their interconnections and targeting the mechanisms that drive CVRM diseases, we will be able to detect, diagnose and treat people earlier and more effectively, stop disease progression and ultimately pave the way to a cure.
> AstraZeneca is uniquely positioned to improve the outcomes of patients living with CVRM diseases today and tomorrow with our strong and expanding portfolio and a broad, deep and innovative pipeline delivered by a talented, passionate and diverse team.
> We are building the leading CVRM business.

2023 review – strategy in action

Our CVRM strategy is focused on four key areas: CV, renal, HF, and metabolic diseases.

Cardiovascular (CV)

CV disease is the leading cause of death and is responsible for approximately one third of all deaths globally. Our ambition is to reduce CV risk by improving hypertension control and reducing dyslipidaemia.

> We continue to make a difference for patients with *Brilinta*, now approved in more than 124 countries for atherosclerosis and in 82 countries for high-risk patients with history of heart attack.
> *Andexxa* is designed to bind to FXa inhibitors and rapidly reverse their anticoagulant effect in patients with major bleeds. In June, the *Andexxa* Phase IV (Annexa-I) trial stopped early after achieving pre-specified efficacy criteria versus usual care. The results of the trial have been presented at the World Stroke Congress and submitted for publication.
> In February 2023, AstraZeneca completed the acquisition of CinCor, focused on developing baxdrostat, an investigational once-daily medication, for the treatment of hard-to-treat hypertension.
> There is also a need for new approaches to stop progression of atherosclerosis caused by dyslipidaemia. AZD0780 is an oral inhibitor (oPCSK9) being developed for greater ease of use and enhanced convenience, aiming to drive reduction in LDL-C levels not achievable by statins alone.

Renal

Nearly 850 million people worldwide, or more than one in 10 people, are affected by kidney disease and more than 90% of people with CKD remain undiagnosed. Our ambition in CKD is to eliminate progression to kidney failure.

> *Forxiga* is now approved in over 120 markets for the treatment of CKD.
> In November, results from the real-world ZORA observational multicountry study showed that treating HK with the potassium

Improving diagnosis pathways in heart failure

In the UK, we partnered with NHS Greater Glasgow and Clyde, the West of Scotland Innovation Hub and the University of Glasgow on PROJECT OPERA, an initiative designed to enhance digital diagnostic pathways for HF.

In the pilot, PROJECT OPERA led to a reduction in echocardiogram waiting times to just six weeks from 12 months. Shorter wait times and earlier diagnosis can reduce the risk of hospitalisation and mortality for patients and avert approximately 8kg of CO_2 emissions per patient per year. We are now applying these learnings to other regions, including the rest of the UK, Spain, France, Germany, Mexico and China.

binder *Lokelma* can allow patients with CKD or HF to maintain their lifesaving ren-in-angiotensin-aldosterone system inhibitor (RAASi) therapy which can prevent risk of progression to end-stage kidney disease. ZORA also showed patients were 2.5 times more likely to stay on RAASi therapy when treated with *Lokelma* versus those not prescribed a potassium binder.

> At the American Society of Nephrology (ASN) 2023, the Phase IIb data for zibotentan/dapagliflozin was presented showing significant albuminuria reduction versus dapagliflozin alone in patients with CKD and proteinuria, supporting progress to Ph3 for High Proteinuria CKD.
> Additional real-world evidence from the REVEAL-CKD, OPTIMISE-CKD and IMPACT-CKD studies highlighted the urgent need to act on the growing global burden and underdiagnosis of CKD.
> In September 2023, the Global Patient Alliance for Kidney Health, a community-led alliance of 17 patient advocacy organisations, was launched with financial sponsorship from AstraZeneca.
> We have an innovative early pipeline in renal, with AZD2373 under investigation as a precision medicine with the aim of preventing progression to kidney failure for people genetically at risk of kidney disease due to two apolipoprotein L1 (APOL1) alleles.

Heart failure (HF)

HF affects nearly 64 million people globally and is closely linked to other CVRM conditions. Our ambition is to eliminate HF as first cause of hospitalisation and cure HF with reduced ejection fraction.

> The DELIVER Phase III trial showed that *Forxiga* reduced the risk of CV death or worsening HF across all left ventricular ejection fractions (LVEF). *Forxiga* is now approved for HF across all LVEF in 91 markets including the EU, US, China and Japan. In August 2023, *Forxiga* received a 1st-line recommendation in the 2023 European Society of Cardiology Treatment Guidelines for HF across the LVEF spectrum.
> Transthyretin-mediated amyloid cardiomyopathy (ATTR-CM) and polyneuropathy (ATTRv-PN) are progressive systemic diseases leading to poor quality of life and eventually death. In September 2023, published results from the NEURO-TTRansform Phase III trial for eplontersen, a potential best-in-class, ligand-conjugated antisense oligonucleotide designed to treat all types of ATTR, demonstrated sustained benefit in the treatment of ATTRv-PN through 85 weeks. Together with our partner Ionis Pharmaceuticals, we received the first regulatory approval for *Wainua* (eplontersen) for the treatment of ATTRv-PN in the US in December 2023 with the EU and others expected to follow in 2024.
> *Wainua* is also currently being evaluated in the Phase III CARDIO-TTRansform trial for ATTR-CM.
> Our early pipeline is aimed at targeting key mechanisms in HF, including widespread inflammation, fibrosis, hypertrophy and microvascular dysfunction, as a major priority. Mitiperstat (AZD4831) is an investigational, oral myeloperoxidase (MPO) inhibitor intended to be complementary to SoC for patients diagnosed with HF with preserved ejection fraction. By targeting this key disease driver, the aim is to reduce inflammation and fibrosis, thereby increasing survival and reducing hospitalisation.

Metabolism

More than 650 million adults are living with obesity and the prevalence of diabetes is expected to rise to 783 million by 2045. Our ambition is to eliminate metabolic dysfunction-associated steatohepatitis, (MASH, previously NASH) fibrosis as a leading cause of liver failure. We also remain committed to treat beyond haemoglobin A1C in T2D.

> *Forxiga* continues to help patients with T2D worldwide with approvals in more than 100 countries. In June 2023, *Xigduo XR* (dapagliflozin and metformin hydrochloride extended-release) was approved in China and, in July 2023, Sidapvia (dapagliflozin and sitagliptin) was approved in Korea, both for the treatment of adults with T2D.
> With one of the broadest clinical pipelines in MASH and cirrhosis, we are investigating new therapeutic modalities and precision medicine to target genetic drivers of disease in MASH to stop or slow disease progression.
> In November, AstraZeneca and Eccogene entered into an exclusive licence agreement for AZD5004, an investigational oral once-daily glucagon-like peptide 1 receptor agonist (GLP-1RA) currently in a US Phase I clinical trial for the treatment of obesity, T2D and other cardiometabolic conditions.

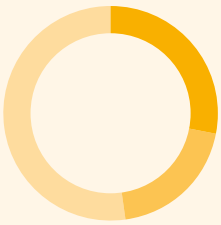
For more information on our commitment in amyloidosis, see page 30.

Therapy Area Review
BioPharmaceuticals
continued

Respiratory & Immunology

Therapy area world market
(MAT Q3-23)

$88.8bn
Annual worldwide market value



- Asthma **$25.0bn**
- COPD **$17.4bn**
- Other **$46.3bn**

Source: IQVIA.
AstraZeneca focuses on specific segments within this overall therapy area market.

Full details are given in the Development Pipeline and Patent Expiries of Key Marketed Products Supplements on our website, www.astrazeneca.com/annualreport2023.

Key marketed products

Product	Disease	Total Revenue	Commentary
Symbicort (budesonide/formoterol)	Asthma COPD	↓ $2,362m, down 7% (4% at CER)	Retained global market leadership. Only ICS/LABA approved as an anti-inflammatory reliever in 47 countries, with regulatory reviews anticipated in additional countries.
Fasenra (benralizumab)	Severe eosinophilic asthma	↑ $1,553m, up 11% (12% at CER)	Currently approved as an add-on maintenance treatment for severe eosinophilic asthma in 80 countries including the US, EU and Japan.
Breztri/Trixeo (budesonide/glycopyrrolate/formoterol)	COPD	↑ $677m, up 70% (73% at CER)	The fastest-growing global triple therapy[1]; approved in more than 73 countries, including the US, EU, Japan and China. More prominent role of fixed-dose triple therapies for early treatment, including mortality reduction benefits, reflected in 2023 GOLD report.
Tezspire (tezepelumab)	Severe asthma	↑ $345m, up 318% (319% at CER)	Approved in more than 45 countries including the US, EU and Japan for the treatment of severe asthma without biomarker or phenotypic limitations. Regulatory reviews are ongoing in additional countries.
Saphnelo (anifrolumab)	Systemic lupus erythematosus (SLE)	↑ $280m, up 140% (141% at CER)	Approved in 61 countries, including the US, EU and Japan. Included in 2023 European Alliance of Associations for Rheumatology (EULAR) recommendations for the management of SLE.
Other products			
Pulmicort (budesonide)	Asthma COPD Croup	↑ $713m, up 11% (17% at CER)	Approved in more than 115 countries.
Bevespi (glycopyrrolate/formoterol)	COPD	→ $58m, stable at 0% (stable at 0% at CER)	Approved in 46 countries, including the US, EU, Japan and China.
Daliresp/Daxas (roflumilast)	COPD	↓ $54m, down 72% (72% at CER)	Approved in more than 50 countries, including the US and EU.

[1] Global triple therapy market definition: *Breztri*, Enerzair, Trelegy, Trimbow.

Our strategy in Respiratory & Immunology

Our ambition is to transform care in respiratory and immune-mediated diseases by moving beyond symptom control to achieve disease modification, remission and, one day, cures for millions of patients worldwide.

COPD

We are working to eliminate COPD as a leading cause of death by transforming care through our broad portfolio.

Our strategy is to:
> Drive earlier diagnosis and prompt intervention with the most effective therapies to reduce mortality by preventing exacerbations and reducing cardiopulmonary risk.
> Advance innovative biology and novel therapeutic platforms including next-generation biologics and orals that will enable us to slow disease progression, drive disease modification, and reverse the structural damage caused by the disease.

Asthma

Our ambition in asthma is to eliminate asthma attacks and achieve clinical remission, even in people with the most severe asthma.

Our strategy is to:
> Establish our anti-inflammatory reliever inhaled portfolio as the backbone of care.
> Drive towards clinical remission with systemic biologics, and with pre-biologics for those patients not controlled on current therapies.
> Introduce new modality therapies and bring forward precision medicine opportunities.

Immunology

Our ambition is to disrupt immunology by focusing on areas of high unmet medical need to drive clinical remission and eventually cure.

Our strategy is to:
> Lead in lupus.
> Disrupt in established diseases with suboptimal treatment outcomes through precision medicine and novel mechanisms with a combination of our mid-stage internal pipeline and external collaborations, targeting diseases such as inflammatory bowel disease (IBD) and rheumatoid arthritis.
> Invest in future transformative technologies with curative potential, such as complex biologics and cell therapy.

New Respiratory

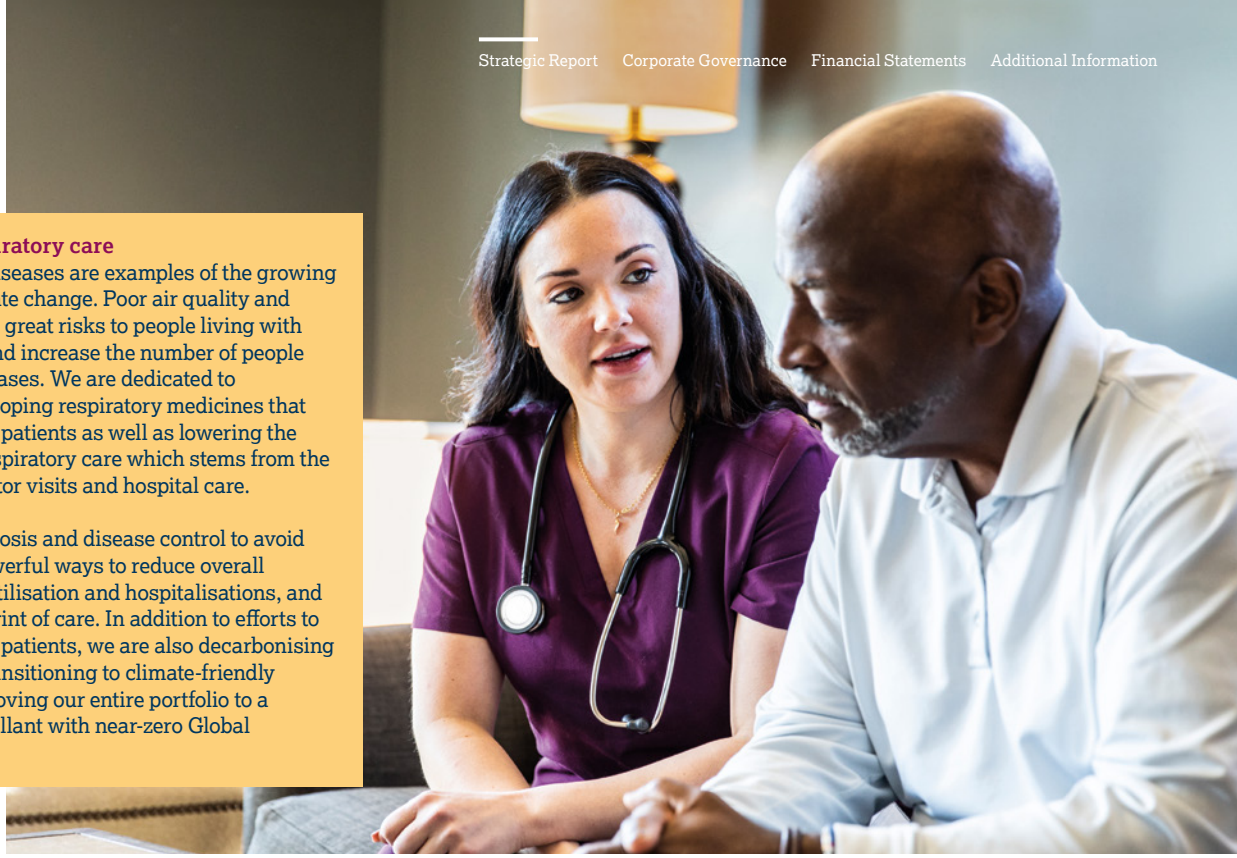
We are also moving beyond asthma and COPD to address other respiratory diseases with significant unmet medical need, including severe viral lung infection, interstitial lung disease and idiopathic pulmonary fibrosis (IPF).

2023 review – strategy in action

COPD

Breztri, our triple inhaled therapy continues to gain market share, demonstrating strong volume growth within the growing fixed-dose combination triple class across major markets. In October 2023, patients received their first dose in the ATHLOS Phase III trial exploring *Breztri*'s ability to improve parameters that indicate cardiopulmonary function in COPD. *Breztri* is also being studied in asthma in two Phase III pivotal trials, KALOS and LOGOS.

The OBERON and TITANIA Phase III trials of tozorakimab (anti-IL-33 mAb) are ongoing. In October 2023, patients received their first dose in the MIRANDA Phase III trial of tozorakimab.



Decarbonising respiratory care
Chronic respiratory diseases are examples of the growing health impact of climate change. Poor air quality and extreme weather pose great risks to people living with asthma and COPD, and increase the number of people developing these diseases. We are dedicated to discovering and developing respiratory medicines that improve outcomes for patients as well as lowering the carbon footprint of respiratory care which stems from the use of medicines, doctor visits and hospital care.

Early detection, diagnosis and disease control to avoid exacerbations are powerful ways to reduce overall healthcare resource utilisation and hospitalisations, and thus the carbon footprint of care. In addition to efforts to improve outcomes for patients, we are also decarbonising respiratory care by transitioning to climate-friendly inhaled medicines, moving our entire portfolio to a next-generation propellant with near-zero Global Warming Potential.

Compounds in early-stage clinical development include:
> Mitiperstat, a selective MPO inhibitor in Phase II. A 10-fold increase in MPO (an enzyme associated with oxidative stress) concentration is associated with a 40% increase of risk of a COPD exacerbation.
> AZD6793, an oral IRAK4 inhibitor that targets many of the key pathways triggered by bacterial and viral infections, smoke and other environmental factors in COPD patients.

Asthma
Symbicort maintained its position as the leading inhaled corticosteroid (ICS)/long-acting beta2-agonist (LABA) globally by volume. Performance has been driven by strong growth in Emerging Markets, offset by generic erosion in the EU, US and Japan.

In January 2024, *Airsupra* launched in the US for the as-needed treatment or prevention of bronchoconstriction and to reduce the risk of exacerbations in people with asthma aged 18 years and older, offering the first and only FDA approved anti-inflammatory rescue therapy to treat airway obstruction and inflammation concomitantly. AstraZeneca entered into a co-development agreement with Bond Avillion 2 Development in March 2018 for the development of the then drug candidate PT027 for asthma in the US.

Fasenra, our first respiratory biologic has reached more than 119,000 patients with severe eosinophilic asthma. In April, we announced positive results from the MIRACLE Phase III trial, an efficacy and safety study of *Fasenra* in patients in Asia with a history of uncontrolled severe eosinophilic asthma. A Phase III trial in COPD, RESOLUTE, is also ongoing.

Tezspire is the first and only biologic approved for patients with severe asthma with no phenotype or biomarker limitation within its approved label. *Tezspire*'s strong performance continues following approval, gaining market share and achieving broad labels and reimbursement globally.

Compounds in early-stage clinical development for asthma include:
> AZD8630, an inhaled fragment antibody (inhaled biologic) in co-development with Amgen, that targets thymic stromal lymphopoietin.
> Atuliflapon (AZD5718), a precision medicine approach in asthma with an oral 5-lipoxygenase-activating protein (FLAP) inhibitor that blocks the 5-lipoxygenase pathway, a clinically validated target which could offer an alternative for uncontrolled patients before becoming eligible for systemic biologics.
> AZD4604, an inhaled JAK1 inhibitor that has the potential to block the effects of T2-high pro-inflammatory pathways (IL4/13, TSLP) and T2-lower pathways (IL6, IL17), many of which are poorly responsive to ICS in patients with asthma.

New Respiratory
The TILIA Phase III trial of tozorakimab in severe viral lower respiratory tract disease is ongoing.

Other compounds in early-stage clinical development include:
> AZD0292, an anti-pseudomonas aeruginosa mAb for the treatment of bronchiectasis.

Immunology
Saphnelo continues to grow rapidly during its launch phase and in June 2023, was included in the 2023 EULAR recommendations for the management of SLE, less than two years after first launch.

Fasenra's life-cycle management programme includes multiple clinical trials in eosinophilic diseases beyond the current severe asthma indication. In September 2023, we announced positive high-level results from the MANDARA Phase III trial which showed that *Fasenra* met the primary endpoint and demonstrated non-inferior rates of remission compared to mepolizumab in patients with EGPA who were receiving oral corticosteroids with or without stable immunosuppressive therapy. MANDARA is the first head-to-head trial of biologics in EGPA, comparing a single injection of *Fasenra* to three injections of mepolizumab, every four weeks. Full results from the trial were presented in November 2023 at the American College of Rheumatology Convergence meeting.

Compounds in early-stage clinical development include:
> AZD7798, a CCR9-depleting mAb. CCR9 is the main chemokine receptor for trafficking lymphocytes to the small intestine and considered central to the generation of small bowel inflammation in Crohn's disease.

In June 2023, we announced an agreement with Quell Therapeutics to develop, manufacture and commercialise engineered T-regulator (Treg) cell therapies for autoimmune diseases in order to reset immune tolerance and drive durable responses for patients. In 2023, we also announced the proposed acquisition of Gracell Biotechnologies.

In June 2023, the clinical development programme for brazikumab, an anti-IL-23 mAb, in IBD was discontinued.

Vaccines & Immune Therapies

Therapy area world market
(MAT Q3-23)

$12.3bn
Annual worldwide market value

Source: IQVIA.
AstraZeneca focuses on specific segments within this overall therapy area market.

Full details are given in the Development Pipeline and Patent Expiries of Key Marketed Products Supplements on our website, www.astrazeneca.com/annualreport2023.

Key marketed products

Product	Disease	Total Revenue	Commentary
COVID-19 mAbs (tixagevimab and cilgavimab)	COVID-19	↓ $312m, down 86% (85% at CER)	Authorised for pre-exposure prophylaxis (prevention) of COVID-19 (emergency use) in EU, Japan and many other countries. Approved for the treatment of COVID-19 in the EU and Japan. US emergency use authorisation for *Evusheld* revised in January 2023 to limit its use to when the combined frequency of non-susceptible variants in the US is ≤90%.
Beyfortus (nirsevimab)	RSV	↑ $262m, up 961% (945% at CER) (2022: $25m)	Approved in the EU, US, UK, China and Canada. In collaboration with Sanofi. Sanofi has full commercial control of *Beyfortus* in the US.
Vaxzevria (ChAdOx1-S [Recombinant])	COVID-19	↓ $12m, down 99% (99% at CER) (2022: $1,875m)	More than three billion vaccine doses have been released for supply to over 180 countries.
Other products			
Synagis (palivizumab)	RSV	↓ $546m, down 6% (2% at CER)	Available in more than 100 countries outside the US. Sobi holds the US rights.
Fluenz Tetra/ *FluMist* Quadrivalent (live attenuated influenza vaccine)	Influenza	↑ $226m, up 30% (22% at CER)	Approved in the US, EU and other countries. Daiichi Sankyo holds rights to *FluMist* Quadrivalent in Japan.

Our strategy in Vaccines & Immune Therapies

We have a portfolio of medicines that includes vaccines for COVID-19 and influenza, long-acting antibodies for COVID-19 and RSV, and a pipeline of next-generation therapeutics and scientific platforms. We are optimising the potential of both vaccines and antibodies, providing long-lasting immunity and supporting sustainable and resilient healthcare systems worldwide by reducing the burden of frequent infectious diseases.

Vaccines

We are engineering next-generation vaccines that have the potential to generate potent and long-lasting immune responses.

Advancing our ambition in vaccines, in January 2024 we entered a collaboration agreement with US-based biotechnology company Omniose to research vaccines for serious bacterial diseases, and we will have exclusive rights to Omniose's proprietary bioconjugation platform for up to three years.

Antibodies

We are pioneering novel approaches to develop highly targeted, long-acting antibodies, using our half-life extension technology. We have significantly accelerated the speed at which we are able to identify potent antibody candidates, screening billions of antibody candidates in a matter of months. This complementary approach, with vaccines providing potential protection for those able to mount their own immune response, and antibody therapies for those who cannot, aims to ensure quality care for all.

2023 review – strategy in action

Our Vaccines & Immune Therapies strategy is focused on reducing the burden of respiratory infections, including RSV, hMPV, COVID-19 and influenza.

Respiratory syncytial virus

Beyfortus is a single dose long-acting antibody (LAAB), developed and commercialised from an alliance between AstraZeneca and Sanofi, using AstraZeneca's proprietary YTE half-life extension technology. In April 2023, AstraZeneca, Sobi and Sanofi updated and simplified their contractual arrangements relating to the development and commercialisation of *Beyfortus* in the US.

In July 2023, *Beyfortus* was approved in the US for the prevention of RSV LRTD in newborns and infants born during or entering their first RSV season, and for children up to 24 months of age who remain vulnerable to severe RSV disease through their second RSV season. In the US, *Beyfortus* is the first approved and recommended immunisation to prevent severe RSV disease in all infants under eight months by the CDC Advisory Committee on Immunization Practices.

In January 2024, *Beyfortus* was approved in China for the prevention of RSV LRTI in neonates and infants entering or during their first RSV season and is anticipated to be available during the upcoming 2024 to 2025 RSV season.

Regulatory applications are currently under review in Japan and other countries.

Since its initial approval in 1998, *Synagis* has become a global SoC for RSV prevention and helps protect at-risk babies against RSV. In February 2023, new cost-effectiveness analysis of *Synagis* for the prevention of RSV infection in otherwise healthy Canadian infants born at 29-35 weeks' gestational age, was presented at the 7th Respiratory Syncytial Virus Foundation Conference in Lisbon, Portugal.

Our agreement with Sobi for the rights to *Synagis* in the US remains ongoing.

In December 2023, AstraZeneca announced an agreement to acquire Icosavax, to bolster the Vaccines & Immune Therapies pipeline with a potential first-in-class, Phase III-ready, combination vaccine against RSV and hMPV, using an innovative, protein virus-like particle platform.

COVID-19

AZD3152 is an investigational next-generation LAAB being developed to potentially protect vulnerable patients such as the immunocompromised from COVID-19, given that they may not have any other non-vaccine option. In July 2023, AstraZeneca shared positive high-level results from the Phase I safety cohort of the ongoing SUPERNOVA Phase I/III COVID-19 prevention trial, which showed that AZD3152 was generally well-tolerated and displayed pharmacokinetics consistent with *Evusheld* through to day 29. AstraZeneca licensed AZD3152 from RQ Biotechnology in May 2022.

Working to bring medicines to patients faster
Immunobridging is an approach to a clinical trial used to infer effectiveness of a new drug or vaccine candidate through an accepted surrogate measure for efficacy. Immunobridging trials – which are well-established for testing vaccines – can help accelerate access to important new therapies, without compromising tolerability.

AstraZeneca is helping to lead the way with innovative immunobridging trials to accelerate access to next-generation monoclonal antibodies for COVID-19, where alternatives to running large efficacy trials are especially important given the rapid pace of viral evolution and the need to potentially protect those at highest risk for severe disease.

In October 2023, AstraZeneca announced new data from two extensive real-world evidence studies, which highlighted that immunocompromised people continue to face significant and disproportionate burdens from COVID-19, with substantially higher rates of severe COVID-19 outcomes compared to the general population. The INFORM and EPOCH studies were published in Lancet Regional Health Europe and Current Medical Research and Opinion, respectively. Data from INFORM were presented at the 12th Annual IDWeek Conference.

Evusheld is a LAAB combination for the pre-exposure prophylaxis (prevention) and treatment of COVID-19. All Product Sales in 2023 were derived from sales of *Evusheld* in the first quarter.

Vaxzevria was co-invented by the University of Oxford. Through a landmark agreement in 2020, *Vaxzevria* was developed and distributed by AstraZeneca at cost during the pandemic. Total Revenue for COVID-19 medicines (*Vaxzevria* and COVID-19 mAbs) declined significantly in 2023, due to the fulfilment of *Vaxzevria* contracts.

Emergency Use Authorisation, based on positive results from the SUPERNOVA sub-study, was submitted in the US for the investigational LAAB sipavibart for pre-exposure prophylaxis of COVID-19 in an immunocompromised patient population.

The International Immunocompromised Advocacy Network, an independent, community-led network of more than 44 patient advocacy organisations, was launched in October 2023 with initial financial sponsorship from AstraZeneca.

Influenza

Fluenz Tetra/*FluMist* Quadrivalent is a live quadrivalent vaccine, given as an intranasal spray. It is the first and only commercial intranasal flu vaccine that offers a needle-free alternative to traditional flu vaccinations. This year marked the 20th anniversary since the first regulatory approval of *FluMist*/*Fluenz*.

In February 2023, AstraZeneca entered into an agreement with the US Government's Department of Defense via the Medical Chemical, Biological, Radiological and Nuclear Defense Consortium to develop a ribonucleic acid (RNA)-based universal pandemic influenza vaccine. As part of this agreement, AstraZeneca will receive up to approximately $80 million over three years to develop the vaccine from preclinical research through a Phase I/II clinical study.

In March 2023, Japan's Ministry of Health, Labour and Welfare approved *FluMist* Quadrivalent for children aged two to 18 years. Daiichi Sankyo holds rights to *FluMist* Quadrivalent in Japan.

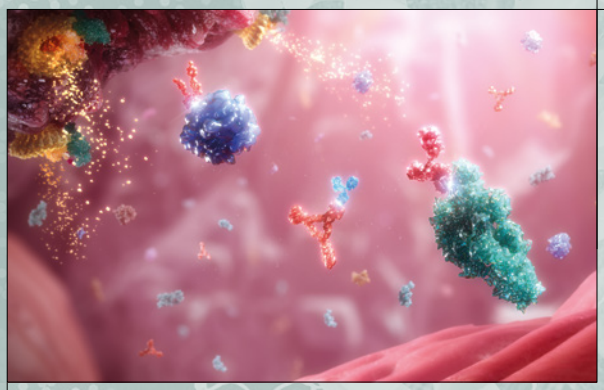
In October 2023, the FDA accepted for review the Supplemental Biologics Licence Application (sBLA) for a self- or caregiver-administration option for *FluMist* Quadrivalent.

For more information on the proposed Icosavax acquisition, see Business development on page 42.

Rare Disease

After more than two full years as Alexion, AstraZeneca Rare Disease, our medicines are helping patients in 70 countries. As we expand the reach of our medicines, our growing pipeline of investigational molecules represents continued innovation on behalf of rare disease patients.

Our mission remains to transform the lives of people affected by rare diseases through the development and delivery of innovative medicines as well as supportive technologies and healthcare services.



The dysregulation of the complement system, an essential part of the immune system, is a key driver of many devastating diseases. Targeting and inhibiting the complement system before it can trigger tissue damage or destruction can help restore balance.

Total Revenue

$7,764m

up 10% (12% at CER)
2022: $7,053m
2021: $3,110m[1]

2023 overview

- Geographic expansion and pipeline diversification enabling continued C5 leadership and sustainability of complement franchise.
- Advancing innovative therapies for non-complement mediated diseases with limited scientific progress or few therapeutic options.
- Strategic collaborations to strengthen next-generation research capabilities:
  - Accelerating genomic medicine ambition via acquisition of Pfizer's preclinical gene therapy portfolio;
  - Leveraging AI and new technologies to drive science-led innovation across drug discovery, clinical diagnostics and patient engagement.

Therapy area world market

(MAT Q3-23)

$158.4bn

Annual worldwide market value

Source: IQVIA.
AstraZeneca focuses on specific segments within this overall therapy area market.

Unmet medical need and world market

400m

people around the world are living with a rare disease.

>10,000

estimated number of rare diseases; fewer than 10% have approved treatment options.

For more information, see:

Science and Innovation from page 34.

Growth and Therapy Area Leadership from page 38.

[1] Total Revenue from *Koselugo* is included within Rare Disease for 2023 and 2022 reporting, previously reported within Oncology, and Total Revenue from *Andexxa* is included within BioPharmaceuticals: CVRM for 2023 and 2022 reporting, previously reported within Rare Disease. The comparatives and growth rates shown for each therapy area have been calculated as though these changes had been implemented in 2021.

Our strategy in Rare Disease

We are dedicated to improving the lives of those living with rare diseases, and the people who support them, through:

- Advancing our leadership in complement therapies, while also building on our pioneering legacy of innovation to diversify our portfolio.
- Collaborating with partners to leverage promising new modalities, platforms and technologies.
- Enhancing science-led innovation across the enterprise to accelerate drug development and delivery.
- Creating smart and efficient strategies that bring transformative medicines to new markets, reaching more patients in a sustainable and equitable way.

Full details are given in the Development Pipeline and Patent Expiries of Key Marketed Products Supplements on our website, www.astrazeneca.com/annualreport2023.

Key marketed products

Product	Disease	Total Revenue	Commentary
Soliris (eculizumab)	Paroxysmal nocturnal haemoglobinuria (PNH) Atypical haemolytic uremic syndrome (aHUS) Generalised myasthenia gravis (gMG) Neuromyelitis optica spectrum disorder (NMOSD)	↓ $3,145m, down 16% (14% at CER)	Approved in more than 50 countries for the treatment of patients with PNH, including the US, EU, Japan and China. Approved in more than 50 countries for the treatment of patients with aHUS, including the US, EU, Japan and China. Approved in more than 40 countries for the treatment of patients with gMG who are anti-acetylcholine receptor antibody-positive (AChR Ab+) including the US, EU, Japan and China. Approved in more than 45 countries for the treatment of adult patients with NMOSD who are anti-aquaporin-4 antibody-positive (AQP4 Ab+), including the US, EU, Japan and China.
Ultomiris (ravulizumab)	PNH aHUS gMG NMOSD	↑ $2,965m, up 51% (52% at CER)	Approved in 60 countries for the treatment of patients with PNH, including the US, EU and Japan. Approved in 60 countries for the treatment of patients with aHUS, including the US, EU and Japan. Approved in more than 55 countries for the treatment of adult patients with gMG who are AChR Ab+, including the US, EU and Japan. Approved in more than 40 countries for the treatment of adult patients with NMOSD who are AQP4 Ab+, including the EU and Japan.
Strensiq (asfotase alfa)	Hypophosphatasia (HPP)	↑ $1,152m, up 20% (21% at CER)	Approved in more than 50 countries for the treatment of certain patients with HPP, including the US, EU, Japan and Canada.
Koselugo (selumetinib)	Neurofibromatosis type 1 (NF1) Plexiform neurofibromas (PN)	↑ $331m, up 59% (60% at CER)	Approved in more than 55 countries, including the US, EU and Japan.
Kanuma (sebelipase alfa)	Lysosomal acid lipase deficiency (LAL-D)	↑ $171m, up 7% (8% at CER)	Approved in more than 45 countries, including the US, EU and Japan.

2023 review – strategy in action

Sustained leadership in complement

Alexion was the first company to translate the complement system into transformative medicines. We are continuing that legacy of leadership across multiple disease areas, leveraging AstraZeneca's established footprint and expanding our global presence through Centres of Excellence to reach patients with high unmet medical need.

2023 performance was underpinned by consistent, durable and strong business growth, driven by continued patient demand in gMG, a progressive, neuromuscular disease which can impact mobility, speech and breathing, together with launches in new markets and successful conversion from *Soliris* to *Ultomiris* across shared indications.

The EU and Japan approved our long-acting C5 inhibitor *Ultomiris* for the treatment of adults with NMOSD, a progressive autoimmune disease that impacts the central nervous system. With no relapses observed in the pivotal CHAMPION-NMOSD trial, *Ultomiris* marks a significant advance for NMOSD patients, offering dosing every eight weeks and the potential to live relapse-free. Regulatory reviews for *Ultomiris* for the treatment of NMOSD are ongoing in additional countries, including the US.

We have further expanded access to our first-in-class C5 inhibitor *Soliris* for patients with rare neurological diseases; *Soliris* has the potential to improve outcomes and quality of life for these patients and their families. *Soliris* has been approved in the EU and Japan for certain paediatric patients with refractory gMG, and was approved in China for the treatment of certain adults with gMG and certain adults with NMOSD.

Additional clinical trials of *Ultomiris* are ongoing in several disease areas where the complement pathway is thought to play a role, including Phase III trials in haematopoietic stem cell transplant-associated thrombotic microangiopathy and in cardiac surgery-associated acute kidney injury. Following review of high-level results, we made the decision to discontinue a Phase II/III clinical trial evaluating *Ultomiris* in adults with dermatomyositis. No new safety findings were observed, and the safety data are consistent with the established safety profile of *Ultomiris*.

Beyond *Soliris* and *Ultomiris*

We are developing a broad portfolio of potential medicines that target various components of the complement system, with opportunities to pursue indications across a wide range of therapeutic areas of interest, including haematology, nephrology, neurology and ophthalmology.

We are exploring the ability to treat earlier-line and broader gMG patient populations in a Phase III trial with gefurulimab (ALXN1720), a next-generation C5 inhibitor that is self-administered subcutaneously.

We are also evaluating potential treatments for certain rare nephrology conditions, including ALXN2030, an investigational small interfering RNA targeting the complement C3 protein.

Factor D inhibition

We have a robust portfolio of investigational medicines that inhibit the complement protein Factor D, including small molecule oral assets with potential broad application across several disease areas.

Voydeya (danicopan) received the first-ever regulatory approval in Japan for the treatment of a subset of adults with PNH to be used in combination with C5 inhibitor therapy. The approval of *Voydeya*, a first-in-class, oral, Factor D inhibitor, was based on the positive results from the pivotal ALPHA Phase III trial; results from the 12-week primary evaluation period of the trial were published in The Lancet Haematology. *Voydeya* was developed as add-on to proven SoC *Ultomiris* or *Soliris* to address the needs of the subset of patients (approximately 10-20%) with PNH who experience clinically significant extravascular haemolysis (EVH) while treated with a C5 inhibitor. Regulatory submissions for *Voydeya* are currently under review with multiple global health authorities.

Alexion is also evaluating *Voydeya* in an ongoing Phase II trial as a potential monotherapy for geographic atrophy, a chronic and progressive eye disease.

Additional investigational, oral Factor D inhibitors in clinical development are:

- Vemircopan (ALXN 2050) in ongoing Phase II clinical trials in a number of rare diseases.
- ALXN2080 in an ongoing Phase I trial.

Expanding beyond complement

We have continued to expand our rare disease focus with novel assets for non-complement mediated diseases.

Amyloidosis is a group of complex rare diseases, with varying types and severities. Alexion and AstraZeneca are advancing the industry's largest amyloidosis pipeline, across a broad range of modalities, to address the spectrum of patient need across multiple disease subtypes.

Amyloid light chain (AL) amyloidosis

In AL amyloidosis, misfolded abnormal proteins build up and form toxic amyloid deposits in organs throughout the body (including the heart and kidneys), causing significant organ damage and failure that may ultimately be fatal.

Anselamimab (CAEL-101), a potentially first-in-class fibril-reactive mAb for the treatment of AL amyloidosis, is currently being evaluated in the Cardiac Amyloid Reaching for Extended Survival (CARES) Phase III clinical programme in combination with SoC therapy in AL amyloidosis. Two parallel Phase III trials in patients with Mayo Stage IIIa and Stage IIIb disease, respectively, are ongoing.

Transthyretin amyloidosis (ATTR)

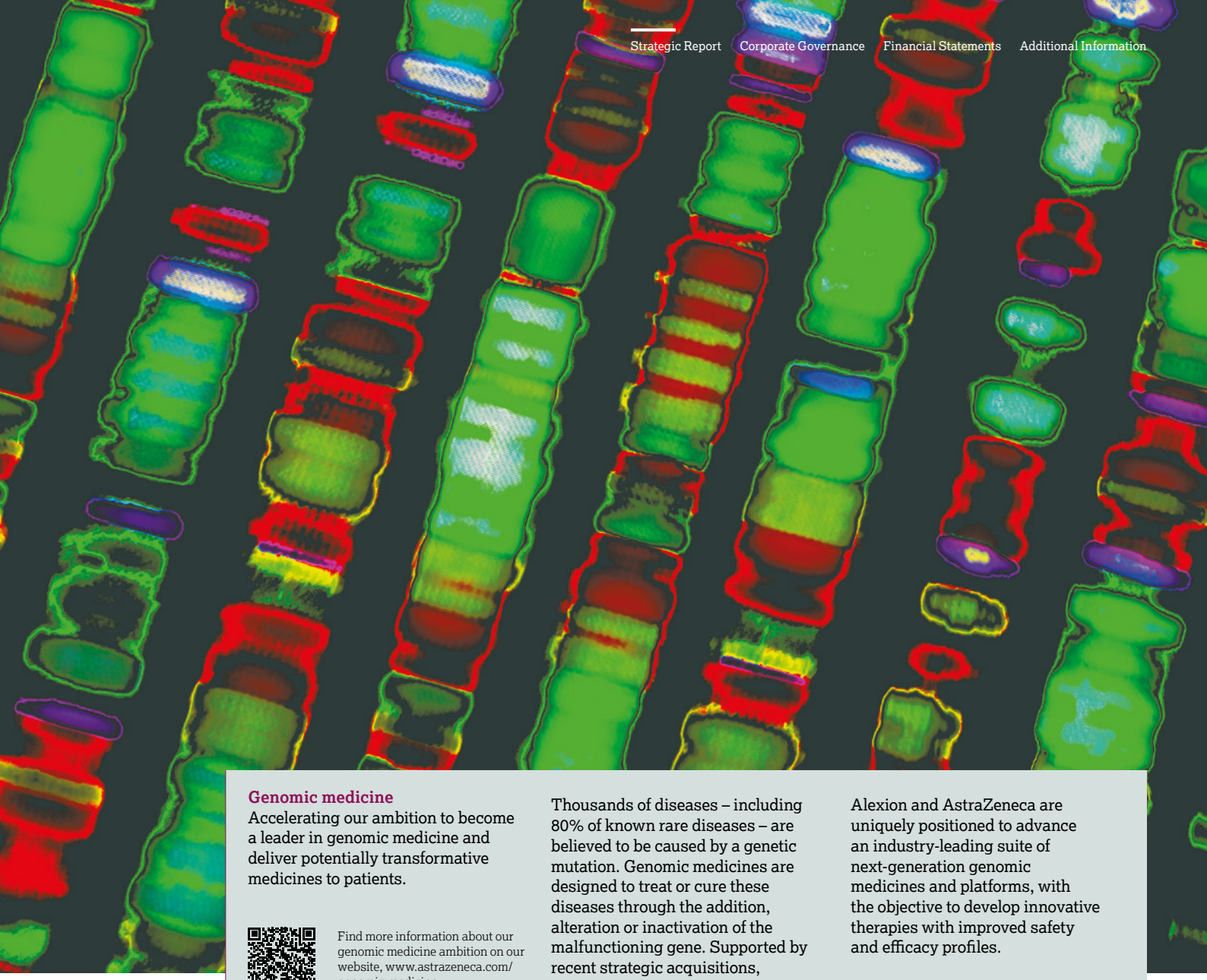
ATTR cardiomyopathy (ATTR-CM) is a systemic, progressive and fatal condition that leads to HF and a high rate of fatality within four years from diagnosis.

Alexion holds an exclusive licence from Neurimmune to develop and commercialise ALXN2220 (NI006), an investigational mAb that specifically targets misfolded transthyretin. ALXN2220 is designed to directly address the pathology of ATTR-CM by enabling removal of amyloid fibril deposits in the heart, with the potential to treat patients with advanced ATTR-CM.

Positive Phase I results were published in the *New England Journal of Medicine* for ALXN2220 in the treatment of patients with ATTR-CM and HF, indicating a favourable safety profile as well as a substantial reduction of cardiac amyloid deposition over a 12-month period, and a Phase III trial of ALXN2220 is underway.

Positive high-level results from the Japan Phase III trial of acoramidis (ALXN2060) in adults with ATTR-CM showed consistency to those in the global BridgeBio ATTRibute-CM Phase III trial, including survival, cardiac-related hospitalisations and other measures of improved functions and quality of life at 30 months. Alexion holds an exclusive licence from BridgeBio's subsidiary, Eidos Therapeutics, Inc., to develop and commercialise acoramidis in Japan; this trial in Japan was conducted to support local registration.

70 countries
Our Rare Disease medicines are now approved in 70 countries.



Genomic medicine

Accelerating our ambition to become a leader in genomic medicine and deliver potentially transformative medicines to patients.

Find more information about our genomic medicine ambition on our website, www.astrazeneca.com/genomic-medicine.

Thousands of diseases – including 80% of known rare diseases – are believed to be caused by a genetic mutation. Genomic medicines are designed to treat or cure these diseases through the addition, alteration or inactivation of the malfunctioning gene. Supported by recent strategic acquisitions, investments and collaborations, Alexion and AstraZeneca are uniquely positioned to advance an industry-leading suite of next-generation genomic medicines and platforms, with the objective to develop innovative therapies with improved safety and efficacy profiles.

Hypophosphatasia (HPP)

HPP is a rare, genetic metabolic disease characterised by impaired bone mineralisation, muscle weakness and other systemic manifestations of the disease, which can lead to death in infants and significant disability at any age.

We completed a Phase I trial in adult patients with HPP for efzimfotase alfa (ALXN1850), our next-generation alkaline phosphatase enzyme replacement therapy. Efzimfotase alfa is designed to help reduce the treatment burden for patients via more convenient dosing and subcutaneous administration. A Phase III trial has been initiated to evaluate efzimfotase alfa in adolescent and adult HPP patients who have not previously been treated with *Strensiq*.

Neurofibromatosis Type 1 (NF1) Plexiform Neurofibromas (PN)

NF1 PN is a rare, progressive, genetic condition impacting multiple body systems characterised by benign tumours called plexiform neurofibromas, which develop along nerve sheaths throughout the body.

In May 2023, *Koselugo* was approved in China for paediatric patients with NF1 and PNs.

Wilson disease

We announced the difficult decision to terminate the ALXN1840 programme in Wilson disease based on review of results from Phase II mechanistic trials and discussions with regulatory authorities.

Rare cancers

Rare cancers account for approximately 27% of cancer deaths and have a lower five-year survival rate than most common cancers, representing a significant unmet medical need. For example, glioblastoma is a rare brain cancer that is almost always fatal, with a five-year overall survival rate of less than 10% following diagnosis. We are partnering with colleagues across AstraZeneca to follow the science and identify opportunities where we can leverage our expertise and infrastructure to deliver transformative outcomes for patients.

Business Review

A talented team delivering our strategic priorities sustainably, supporting scientific innovation and commercial success.

Our business is organised to deliver our Growth Through Innovation strategy. Our R&D and Commercial functions promote accelerated decision making and the launches of new medicines across our therapy areas.

Science and Innovation

We are focused on science and innovation, from discovery through to development and life-cycle management, and on improving productivity and outcomes for patients. We have three therapy area-focused R&D organisations – Oncology, BioPharmaceuticals and Rare Disease.

Key topics covered

- Summary and performance indicators
- Research & Development
- Bioethics
- Development pipeline overview

Growth and Therapy Area Leadership

We are focused on realising the potential of our pipeline and medicines that deliver sustainable growth. Our Commercial regions align product strategy and commercial delivery while our Operations function manufactures and delivers our medicines.

Key topics covered

- Summary and performance indicators
- Sales and marketing
- Operations
- IT and IS resources
- Business development

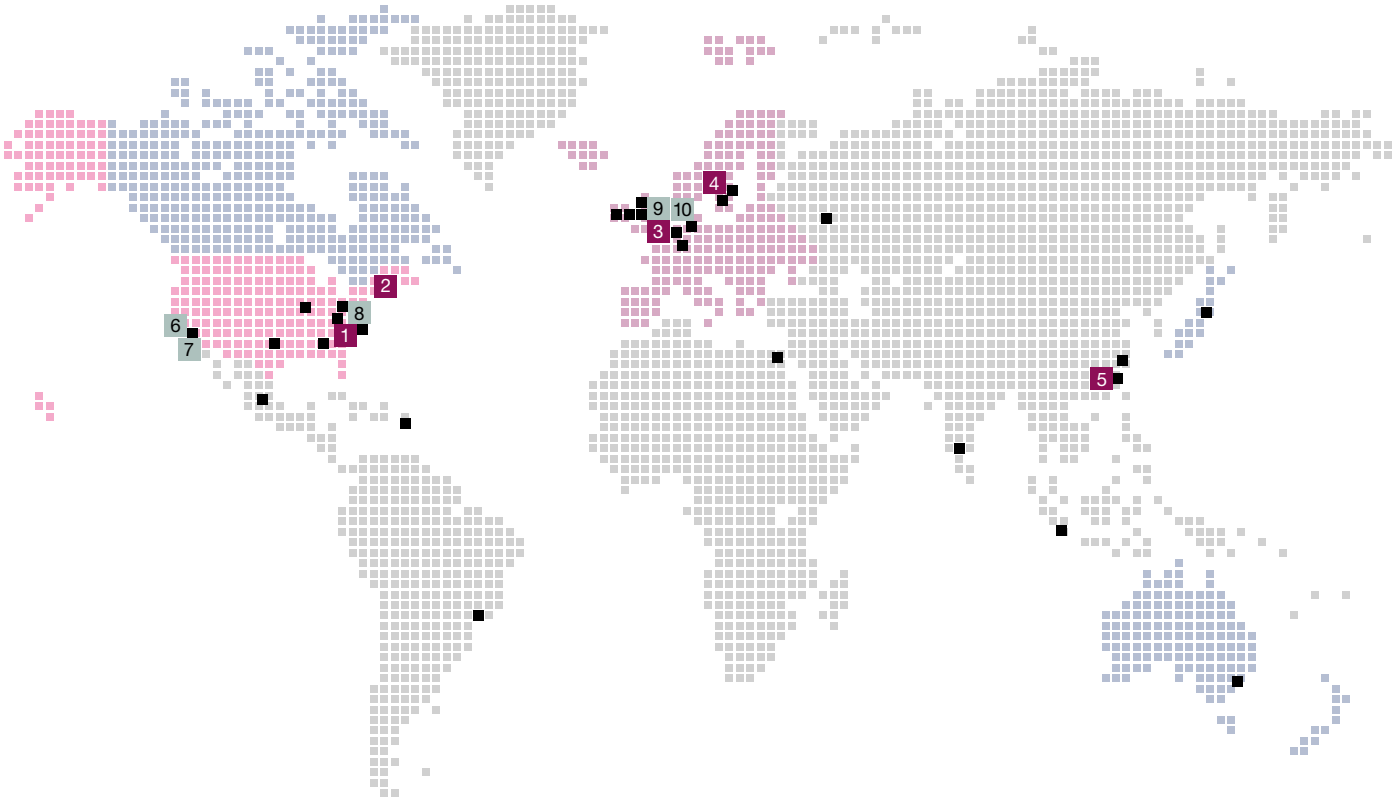
People and Sustainability

We are committed to our people, ensuring that AstraZeneca remains a great place to work. We are also enhancing our pledge to the planet and, through development of our health equity strategy, to society.

Key topics covered

- Summary and performance indicators
- People
- Sustainability
  - > Access to healthcare
  - > Environmental protection
  - > Ethics and transparency

Global reach and presence



Science and Innovation

We are using our distinctive scientific capabilities to deliver a pipeline of life-changing medicines. Our R&D functions enable the launches of new medicines across our therapy areas.

Strategic R&D centres[1]

1. Gaithersburg, MD, US
2. Boston, MA, US
3. Cambridge, UK (HQ)
4. Gothenburg, Sweden
5. Shanghai, China

Other R&D centres with discovery research labs[1]

6. San Francisco, CA, US
7. Santa Monica, CA, US
8. New Haven, CT, US
9. Macclesfield, UK
10. Amsterdam, Netherlands

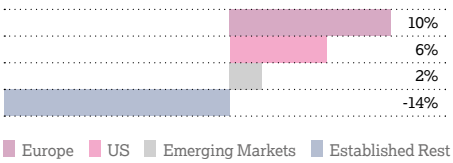
13,000+
R&D employees across our global sites

Growth and Therapy Area Leadership

We work to meet our goals through innovation and commercial excellence. We have an active presence in 85 countries and sell our products in more than 125 countries.

Operations sites[1]

Total Revenue growth by reporting region[2]



27
Operations sites in 16 countries

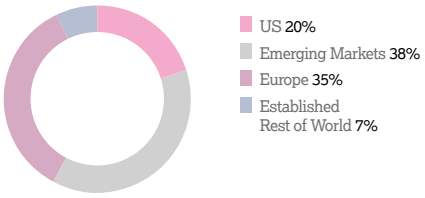
$45.8bn
Total Revenue

[1] Inclusive of Alexion and Neogene.
[2] Actual growth percentage.

People and Sustainability

Our success depends on recruiting, retaining and developing talented people while operating in a responsible and sustainable way to build a healthy future for people, society and the planet.

Employees by reporting region



89,900
employees

50.1%
of our senior roles are filled by women

Science and Innovation

Summary and performance indicators

We are using our distinctive scientific capabilities to deliver a pipeline of life-changing medicines.

Our performance in 2023

- Invested $10.9 billion in our R&D.
- Three first approvals for new medicines: *Airsupra*, *Truqap* and *Wainua*. *Voydeya* was approved in January 2024.
- 56 regulatory events and 30 pipeline progressions.
- 178 pipeline projects, of which 160 are in the clinical phase of development.
- More than 2,000 people working in our Discovery Centre in Cambridge, UK.
- Strategic R&D centre in China.
- Published 808 manuscripts with 158 in 'high-impact' journals.
- Invested in new modalities such as cell and gene therapies, epigenetics and oligonucleotides.
- Launched Evinova to accelerate innovation.

Performance indicators

By measuring both Phase II and Phase III pipeline progressions, we focus on both near-term and longer-term delivery. Phase II NME starts ensure the ongoing robustness and future stability of the pipeline (and reflect the outcome of nearer-term strategic investment decisions). Phase III investments measure assets that will deliver nearer-term value (and reflect the outcome of longer-term strategic investment decisions). Submission and approval metrics demonstrate the advancement of this innovation through filing and approval in four major markets (US, EU, China and Japan).

NME Phase II starts/progressions

6

NME and major LCM submissions

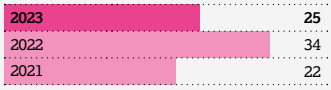
31

NME and major LCM Phase III investment decisions

24

NME and major LCM approvals

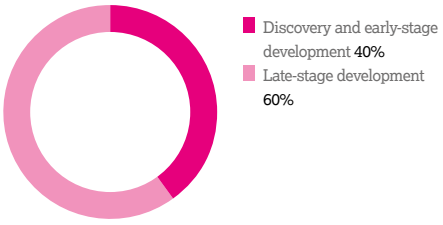
25



Research & Development

In 2023, we continued to progress our science and our pipeline in a way that reflected our ongoing commitment to sustainability and maintaining an ethical business culture.

Research & Development



Our R&D resources

Our strategic R&D centres

The Discovery Centre in Cambridge, UK, is located in a bioscience hotspot and is now occupied by more than 2,000 employees working in drug discovery and development across our therapy areas. Gaithersburg is our largest R&D site in the US and our presence in Maryland contributes to the state's economy while supporting the growth of the life sciences industry. Supporting the entire life-cycle of our medicines, our Gothenburg site facilitates interactions between drug, device, diagnostics and digital health companies in a growing life science ecosystem.

In 2026, we plan to begin the phased occupation of our new strategic R&D centre and Global Alexion headquarters in Boston. The centre is located in Kendall Square, at the heart of one of the world's top biotech research and technology innovation centres.

Our centre in Shanghai recognises the importance of the China market to our future growth and our focus on bringing Chinese innovation to the world.

Investing in R&D

In 2023, R&D expenditure was $10,935 million (2022: $9,762 million; 2021: $9,736 million), including Core R&D costs of $10,267 million (2022: $9,500 million; 2021: $7,987 million). In addition, we spent $2,530 million on acquiring product rights (such as through in-licensing) (2022: $2,051 million; 2021: $27,042 million). We also invested $212 million on the implementation of our R&D restructuring strategy (2022: $111 million; 2021: $223 million). Allocations of spend by early- and late-stage development are shown in the chart to the left.

2023 investment increased to support our late-stage portfolio: in Oncology, camizestrant, volrustomig and our ADC portfolio; in BioPharmaceuticals, *Breztri/Trixeo* and tozorakimab. The Eccogene agreement exclusively licensed AZD5004, with spend on the programme and trial planning. COVID-19 investment continued with AZD3152 SUPERNOVA trial for prophylaxis and treatment options. We also invested in new modalities and technologies with acquisitions of Pfizer genomic assets, Neogene and the Cellectis cell therapy agreement.

Our R&D in 2023

In 2023, we continued to progress our science, focusing on four key areas of transformative science. Our scientists published 808 manuscripts with 158 in 'high-impact' peer-reviewed journals, each with an impact factor exceeding 15 (Thomson Reuters five-year impact factor score). The ongoing high impact continues to reflect the quality of, and drive to share, our science.

Enhancing our understanding of disease biology

Advancing our understanding of disease biology is helping uncover novel drivers for the diseases we aim to prevent, treat and in the future, cure. Selecting the right target remains the most important decision in drug discovery.

2023 developments included:

> Demonstrating the power of combining genomics with proteomics to discover how rare changes in genes affect plasma proteins by using data from more than 50,000 individuals in the UK Biobank. This study, published in *Nature,* is the largest of its kind.
> Together with academic and biopharmaceutical industry partners, we launched Together For Change, a 10-year initiative to close the gap on historical health care inequities, education and training by building more diversity in genetic research, accelerating education pathways, and improving genomic tools for people of African ancestry.
> Publishing in several high-impact journals, including *Nature*, reflecting our progress in understanding the role that tumour-associated myeloid cells with immunosuppressive properties play in poor patient outcomes and in treatment resistance in cancer.
> Establishing a new world-class functional genomics laboratory with the Medical Research Council and the Milner Therapeutics Institute at the University of Cambridge to accelerate drug discovery and further the UK's global genomics leadership. Innovative collaborations such as this allow us to share resources and expertise to advance science for the benefit of patients.
> Working with Ad Scientiam to develop digital biomarkers to improve symptom tracking for rare neurological and neuromuscular diseases.

Creating the next generation of therapeutics

We continue to design new ways of targeting the drivers of disease. The diversity of technologies applied in our early pipeline is exemplified by the increased number of new modalities entering clinical development, including ADCs, antibodies (e.g. bispecific, inhaled fragment, cell depleting monoclonal), cell therapies, genomic medicines, PROTACs, oligonucleotides and T-cell engagers.

2023 developments included:

> Advancing novel engineered Treg cell therapies designed to induce durable immune tolerance as a potential cure for serious immune-mediated diseases. This is being explored in type-1 diabetes (T1D) and inflammatory bowel disease (IBD) in a new strategic collaboration with Quell Therapeutics.
> Demonstrating the strength of our proprietary ADC technology by advancing AZD9592 (epidermal growth factor receptor (EGFR) cMET bispecific) and AZD5335 (FRα) into the clinic.
> Advancing our ambition to bring cell therapies to solid tumours by disclosing two novel CAR-Ts – AZD0574 (STEAP2) and AZD6422 (Claudin 18.2) – designed utilising our innovative armouring technology to resist the immunosuppressive tumour microenvironment, and progressing our first T-cell receptor therapies – NT-125 (fully individualised) and NT-175 (TP53) – into the clinic through Neogene.
> Accelerating our cell therapy and genomic medicine ambitions in areas of high unmet medical need across oncology, immunology and rare diseases, via a collaboration and investment agreement with Cellectis to leverage gene editing technologies and manufacturing capabilities, via the proposed acquisition of Gracell, which includes a clinical-stage autologous BCMA/CD19 CAR-T therapy targeting haematologic malignancies and autoimmune diseases and a proprietary cell therapy manufacturing platform, and via the acquisition of a portfolio of preclinical rare disease gene therapies from Pfizer.

Better predicting clinical success of our candidate drug molecules

We are adopting a range of cutting-edge technologies, generating data that are more relevant to patients than previous methods, to help us predict the clinical effectiveness of our candidate drug molecules.

2023 developments included:

> Collaborating with Verge Genomics to more efficiently identify and validate therapeutic targets for rare diseases by leveraging Verge's AI-enabled platform trained on patient tissue samples.
> Under our collaboration with GRAIL, new data showed the promise of the GRAIL methylation assay for detecting residual disease in blood cancer following treatment, with potential to inform early intervention strategies.
> Collaborating with Qureight to leverage imaging data analytics and AI models to better understand how patients with rare and complex lung diseases could respond to novel drugs.
> Pioneering the use of Quantitative Continuous Scoring (QCS), our novel, fully automated computational pathology solution, within our clinical trial portfolio. Early clinical studies have shown that QCS can identify the right patient populations suitable for targeted therapies, such as ADCs.
> Publishing findings in *Advanced Science* that show our ability to develop novel microphysiological systems that can combine multiple cell types and reproduce the structures of functioning organs to accurately recreate key aspects of kidney biology in the lab for the first time.

Pioneering new approaches to engagement in the clinic

We are pioneering clinical innovation to design and deliver patient-centric clinical trials that improve the patient and site team experience while optimising the use of data, digital and AI to improve patient outcomes in clinical trials and beyond.

2023 developments included:

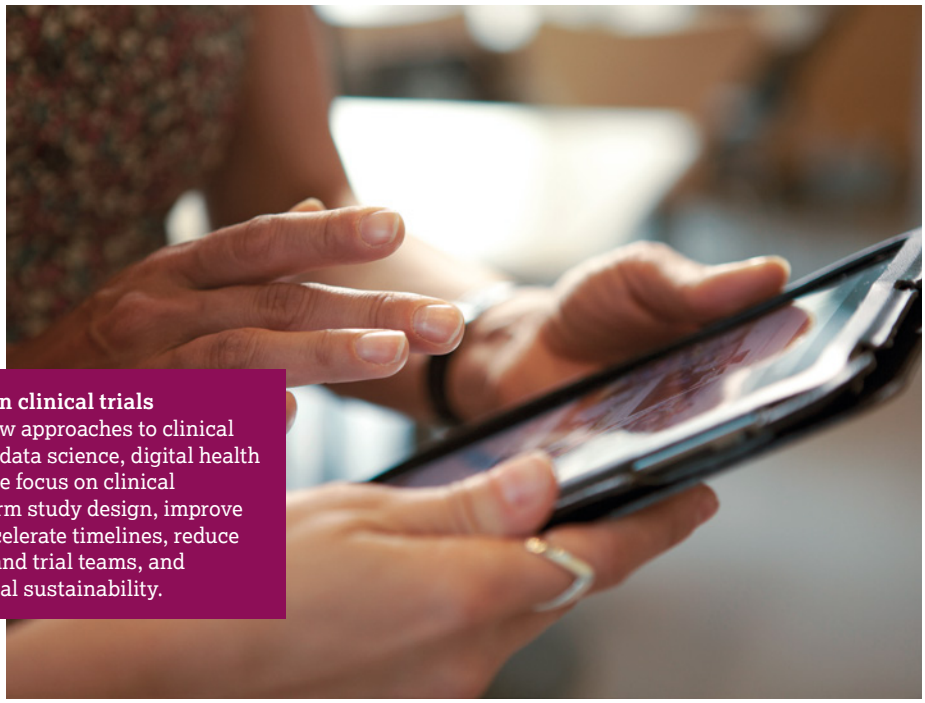
> Publishing in *Nature Medicine* our 6R framework for implementing digital health technology in clinical trials based on qualitative research. This showed how technology is enabling a shift from the traditional physical site-based trial model, reducing the burden on patients and trial sites and enabling continuous data collection while driving more innovative trial designs.
> Collaborating with existing UK NHS lung cancer screening programmes, research sites and investigators to identify COPD patients eligible for clinical trials. The initiative also strengthens our understanding of factors contributing to resilience and early disease development.
> Launching Evinova to bring to market digital health solutions that are science-based, evidence-led and human-experience driven. Evinova will prioritise digital solutions to optimise clinical trial design and delivery.

For more information on Quell, Cellectis, Gracell and Pfizer deals, see Business development on page 42.

Science and Innovation

Bioethics BV

'Bioethics' means ethical issues arising from the study and practice of biological and medical science. Our key principles are set out in our Global Standard.



Driving innovation in clinical trials
We are pioneering new approaches to clinical trials. By integrating data science, digital health technology and AI, we focus on clinical innovation to transform study design, improve patient outcomes, accelerate timelines, reduce burdens on patients and trial teams, and improve environmental sustainability.

Clinical trial transparency

We believe that transparency enhances the understanding of how our medicines work, which benefits patients. We publish information about our clinical research, as well as the registration and results of all our interventional clinical trials and most non-interventional trials for all products – regardless of whether the results are favourable. This includes completed trials for marketed medicines, drugs in development and drugs where development has been discontinued.

As of 31 December 2023, AstraZeneca had:
- Shared anonymised individual patient-level data from 270 unique studies.
- Responded to 364 requests from external researchers using our portal, www.vivli.org, and/or scientific collaborations, for our clinical data and reports to support their research.
- Published 23 Anonymised Clinical Document Packages.
- Published 401 Trial Result Summaries in accessible language and translated these into 63 languages for all study sites on the industry-wide portal www.trialsummaries.com.

Research use of human biological samples and genomic information

We use human biological samples and genomic information for research into better understanding of diseases, improved diagnosis, and other healthcare improvements, as well as for the research and development of new medicines. We are committed to minimising the use of human foetal tissue (hFT) through scientific advancements. Permission is granted only when no other scientifically reasonable alternative is available, or there is a regulatory requirement. There were two new hFT approvals in 2023. To date, eight projects using hFT have been approved, and three projects are ongoing.

Animals in research

Animal studies remain a small, but necessary part of discovering, developing and licensing life-changing medicines.

AstraZeneca is committed to the 3Rs (Replacement, Reduction and Refinement of animals in research) and has programmes to accelerate the development of new approach methodologies, which have potential to reduce and eventually replace the need for animals. We focus on robust experimental design and analysis to ensure the fewest animals are needed to achieve scientific objectives, with our scientists refining procedures and applying high standards of animal care.

Animals were needed for in-house studies 122,768 times in 2023 (100,803 in 2022), and on our behalf in contract research studies 59,690 times (53,377[1] in 2022). In total, over 97% were rodents or fish, with the majority being mice (84%). The remainder is made up of rabbits, camelids, ferrets, dogs, pigs, non-human primates, chickens and sheep. Dogs and non-human primates make up less than 1% of the total. AstraZeneca does not conduct research using wild-caught non-human primates or great ape species.

AstraZeneca is committed to transparency and is signatory to the Concordat on Openness on Animal Research (UK), the Openness Agreement on Animal Research and Teaching (Australia/New Zealand) and is contributing to the U.S. Animal Research Openness Initiative.

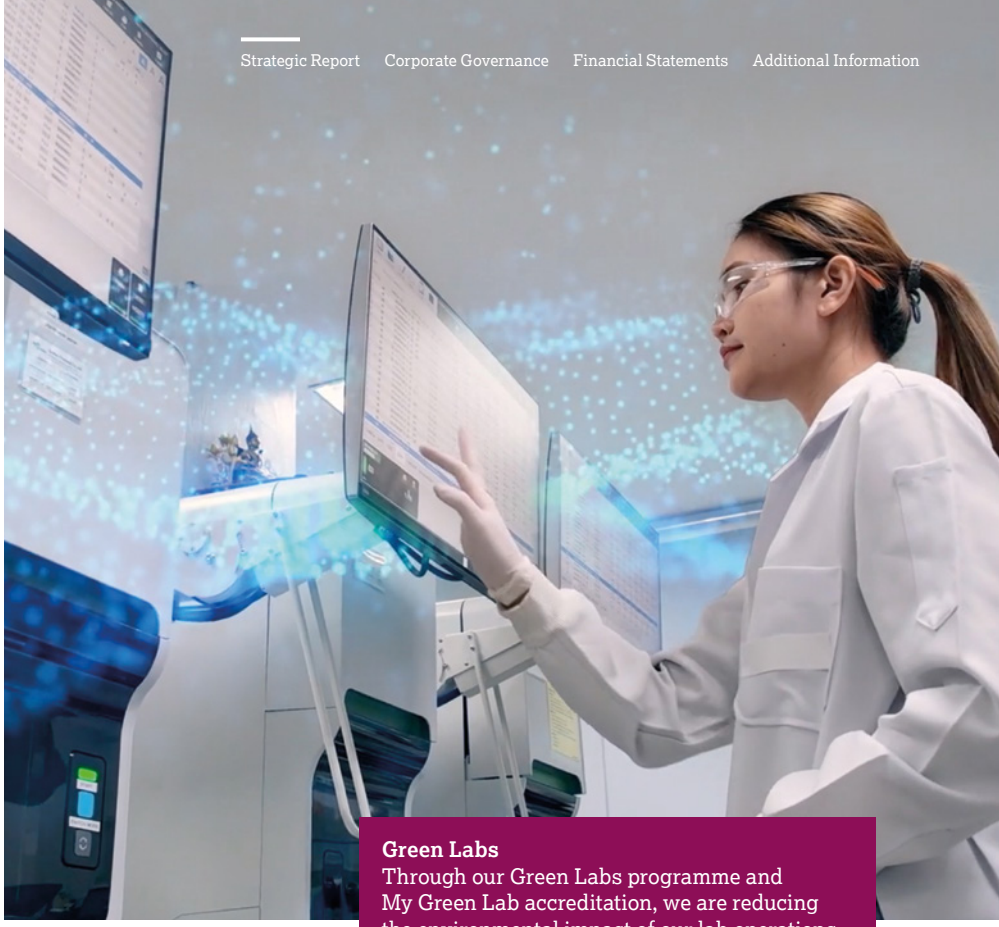
AstraZeneca has an animal welfare assurance programme that ensures research conducted by third parties meets our high standards.

For more information, see www.astrazeneca.com/sustainability/resources.html.

[1] 2022 data has been restated due to system error causing figures to be overstated.

Development pipeline overview

2023 was another remarkable year for pipeline development. We achieved 56 regulatory events, either submissions or approvals for our medicines in major markets, including three NME first approvals.



Green Labs
Through our Green Labs programme and My Green Lab accreditation, we are reducing the environmental impact of our lab operations by engaging scientists and changing mindsets to design, develop and deliver new medicines in the most sustainable way.

This performance is backed by a healthy pipeline of high-potential medicines, with a total of 30 pipeline progression events, either NME Phase II starts or Phase III investment decisions, indicating our ability to deliver longer-term sustainable growth.

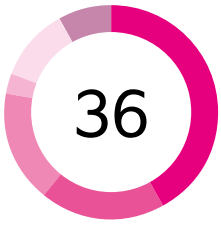
Our pipeline comprises 178 projects, of which 160 are in the clinical phase of development. We have 17 NME projects in pivotal trials or under regulatory review, compared with 15 at the end of 2022. Also in 2023, 31 NMEs progressed to their next phase of development and 18 projects were discontinued: eight for poorer than anticipated safety or efficacy results and 10 as a result of a strategic shift in the environment or portfolio prioritisation.

Accelerating our pipeline

We are prioritising our investment in specific programmes, focusing on scientific innovation. As a result, we received 10 Regulatory Designations (Breakthrough Therapy, Priority Review or Fast Track) for eight new medicines that offer potential to address unmet medical need in certain diseases. We also secured Orphan Drug Designation for the development of six medicines to treat rare diseases.

For more information, see Therapy Area Review from page 16.

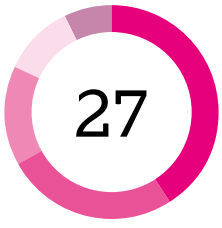
Phase I[1]



- Oncology 42%
- Cardiovascular, Renal & Metabolism 19%
- Respiratory & Immunology 17%
- Vaccine & Immune Therapies 3%
- Rare Disease 11%
- Other 8%

[1] Includes NMEs and additional indications if the lead is not yet launched.

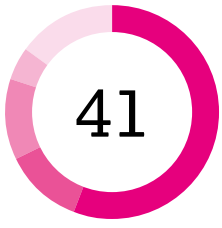
Phase II[1]



- Oncology 41%
- Cardiovascular, Renal & Metabolism 26%
- Respiratory & Immunology 15%
- Vaccine & Immune Therapies 0%
- Rare Disease 11%
- Other 7%

[1] Includes NMEs and additional indications if the lead is not yet launched.

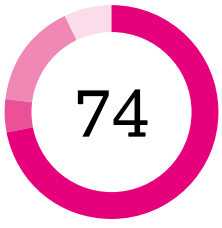
Late-stage development[1]



- Oncology 56%
- Cardiovascular, Renal & Metabolism 12%
- Respiratory & Immunology 12%
- Vaccine & Immune Therapies 5%
- Rare Disease 15%
- Other 0%

[1] Includes NMEs and additional indications if the lead is not yet launched.

Life-cycle management projects[2]



- Oncology 72%
- Cardiovascular, Renal & Metabolism 5%
- Respiratory & Immunology 16%
- Vaccine & Immune Therapies 0%
- Rare Disease 7%
- Other 0%

[2] Only includes major LCM projects.

Growth and Therapy Area Leadership

Summary and performance indicators

We plan to meet our growth and profitability goals through innovation, commercial excellence and the creation of sustainable profitability.

Our performance in 2023

- Total Revenue, comprising Product Sales, Alliance Revenue and Collaboration Revenue, increased by 3% (6% at CER) to $45,811 million. Total Revenue excluding COVID-19 medicines increased by 13% (15% at CER) to $45,488 million.
- In the US, Total Revenue increased by 6% to $19,077 million and in Europe by 10% (8% at CER) to $9,611 million.
- Total Revenue in Emerging Markets increased by 2% (9% at CER) to $12,025 million, with an increase in China of 1% (7% at CER) to $5,876 million.
- Continued collaboration with payers to conclude outcomes- and value-based reimbursement models that improve patient outcomes and enable access to medicines.
- Committed to high ethical standards: 296 employees and third parties were removed from their roles for breaches of sales and marketing regulations or codes.
- Delivered 282 successful market launches.
- Completed more than 20 major or strategically important business development transactions.

Key Performance Indicators

Global Total Revenue by geography

	2023			2022			2021		
	Total Revenue $m	**Actual growth %**	**CER growth %**	Total Revenue $m	Actual growth %	CER growth %	Total Revenue $m	Actual growth %	CER growth %
US	**19,077**	**6**	**6**	17,920	47	47	12,228	38	38
Emerging Markets	**12,025**	**2**	**9**	11,745	(4)	1	12,281	41	36
Europe	**9,611**	**10**	**8**	8,738	9	21	8,050	45	40
Established Rest of World	**5,099**	**(14)**	**(8)**	5,948	22	40	4,858	37	37
Total	**45,811**	**3**	**6**	44,351	19	25	37,417	41	38

Sales and marketing

Our growth is delivered by our Commercial teams, which employed 45,888 people at the end of 2023. During the year, we had an active presence in 85 countries and sold our products in more than 125 countries. In most markets, we sell our medicines through wholly-owned local marketing companies. We also sell through distributors and local representative offices. We market our products largely to primary and specialty care physicians.

Our regions

We strive to meet our growth and profitability goals through commercial excellence in each of our global reporting regions.

US

As the tenth-largest prescription-based pharmaceutical company in the US, we have a 3.6% market share of US pharmaceuticals by sales value. Total Revenue increased by 6% in 2023 to $19,077 million, driven by the continued growth of our Oncology medicines and *Farxiga*. Recent launches in heart failure and chronic kidney disease drove an increase in market share.

The US healthcare system is complex. Multiple payers and intermediaries influence patient access to branded medicines through regulatory rebates in government programmes and voluntary rebates paid to managed care organisations and pharmacy benefit managers for commercially insured patients. Significant pricing pressure is driven by payer consolidation, restrictive reimbursement policies and cost control tools, such as exclusionary formularies and price protection clauses. Many formularies employ 'generic first' strategies and/or require physicians to obtain prior approval for the use of a branded medicine where a generic alternative exists.

The Inflation Reduction Act (IRA) of 2022 was passed to address affordability concerns. *Farxiga* has been selected in the first round of negotiations under the IRA, with the price taking effect in 2026, which is the same year we expect to lose exclusivity, and the impact is therefore expected to be manageable. We are evaluating our portfolio to understand timings associated with the potential inclusion of other medicines in future negotiations. We have a diversified product portfolio providing a broad spectrum of treatments in different therapy areas, allowing access for patients in need of our innovative medicines.

Europe

The total European pharmaceutical market was worth $248 billion in 2023. We are the seventh-largest prescription-based pharmaceutical company in Europe (see market definitions on page 232) with a 3.3% market share of pharmaceutical sales by value. Total Revenue was $9,611 million, up 10% (8% at CER).

AstraZeneca in Japan
We are the second-largest prescription-based pharmaceutical manufacturer with a 6.1% value market share of Innovative Branded pharmaceutical sales by value, and have gained recognition as being a great place to work by the Great Place to Work Institute.

Established Rest of World (RoW)
Established RoW comprises Japan, Canada, Australia and New Zealand. In 2023, Total Revenue decreased by 14% (8% at CER) to $5,099 million, with sales in Japan down 10% (3% at CER) to $3,705 million.

Emerging Markets
With Total Revenue of $12,025 million, up 2% (9% at CER), AstraZeneca was the second-largest multinational pharmaceutical company, as measured by prescription sales, and the fifth fastest-growing top 10 multinational pharmaceutical company in Emerging Markets in 2023.

In China, AstraZeneca is the largest pharmaceutical company in the hospital sector, as measured by sales value. In 2023, Total Revenue increased by 1% at actual rate of exchange (7% at CER) to $5,876 million (2022: $5,792 million). Roxadustat and *Lokelma* were renewed in the National Reimbursement Drug List (NRDL) and *Xigduo*, *Tagrisso* (ADAURA), *Lynparza* (PAOLA-1), *Calquence*, *Soliris* and *Koselugo* achieved listing for the first time. Since the implementation of VBP, several AstraZeneca brands have been impacted. In the most recent cycles of VBP implementation, *Faslodex* and *Plendil* were included. Additional AstraZeneca brands are expected to be included in future VBP cycles. There was some impact on demand in the second half of the year, mainly with oncology products, following the government anti-corruption campaign announced in July 2023.

We were shocked following the Russian invasion of Ukraine in February 2022 and, since then, have provided practical support to ensure the safety, health and wellbeing of our employees. As a healthcare business, we are doing everything possible to ensure medical supply chains continue to operate and that patients in both countries are able to access our medicines, while complying with sanctions imposed on Russia.

Healthcare in low- and middle-income countries BV

AstraZeneca is committed to building resilient and sustainable health systems and improving equitable access to healthcare. By working collaboratively, we remove barriers to care and support the development and delivery of healthcare, particularly in low- and middle-income countries. We also adapt our programmes to suit local health systems and communities, contributing to health system capacity and resilience through training, education, prevention and early detection and diagnosis.

Pricing and value of our medicines
Increasing demand for healthcare means increasing pressure on health system budgets. This shift results in price and reimbursement restrictions in many markets. These pressures also result in movement from primary to speciality care, including rare diseases, which comprise a growing share of our portfolio. This pricing pressure, coupled with higher rates of inflation, means that we are unable to pass on the full impact of price increases.

Pricing for our medicines seeks to reflect the value they bring to patients, payers and society, and the significant investment required for targeted treatment options. In our discussions with national, regional and local stakeholders, we base our pricing policies on four principles: sustainability, value, access and flexibility. We collaborate with payers to conclude innovative outcomes and value-based reimbursement models that improve patient outcomes and enable access to medicines across key therapeutic areas and geographic regions. We also offer a number of patient assistance programmes that help increase patients' access to medicines and/or healthcare by reducing their cost burden.

Responsible sales and marketing BV
As outlined in the Code of Ethics on page 49, we are committed to high ethical standards. Our compliance professionals advise on, and monitor, adherence to our Code and policies, and work with local staff to ensure we meet our ethical standards.

Nominated signatories review product promotional materials and activities to ensure compliance with applicable regulations and codes of practice, and that information is accurate and balanced. Group Internal Audit conducts audits of selected marketing companies.

In 2023, we identified four confirmed external breaches across our Commercial business (2022: 10). There were 3,758 instances (instances can involve multiple people) of employee and third-party non-compliance with our policies (2022: 2,872). A total of 296 employees and third parties were removed from their role as a result of a breach (2022: 147) and 2,968 received warnings (2022: 3,326). We brief our Audit Committee quarterly on breach statistics, serious incidents and corresponding remediation.

Breaches primarily consist of low-impact incidents. We continue to foster a culture where employees can speak their minds, with strong first-line oversight (and related reporting) as well as targeted second-line monitoring to identify concerns early, and use learnings to improve our programme.

Anti-bribery and anti-corruption BV

We do not tolerate bribery or any other form of corruption. Preventing bribery and corruption are a focus of our third-party risk management and due diligence processes, as well as our monitoring and audit programmes. We reinforce our commitment to ethical business conduct through our annual Code of Ethics training, which is delivered to all employees and relevant third parties.

For more information, see Access to healthcare from page 47.

For more information on our pricing policies, see our Sustainability Report on our website, www.astrazeneca.com/sustainability.

Growth and Therapy Area Leadership

Operations

Our manufacturing and supply function continued to support our growth and pipeline, demonstrating excellence in product launches, quality and supply, with focus on progressive, sustainable processes.

In 2023, we made strong progress against our Operations 2025 strategy, focused on scaling our capabilities to support business growth, leveraging the benefits of new manufacturing technology and digital innovation:

> Delivered 282 launches across major markets.
> Progressed our investments in manufacturing technologies, new modalities and digital innovations.
> Five sites within the network – Nijmegen, Cairo, Cikarang, Lomas Verdes and Cotia – have delivered a 98% reduction in Scope 1 and Scope 2 GHG emissions (from 2015 baseline) measured against science-based targets.

Ensuring quality and compliance

As outlined in our Code of Ethics on page 49, we are committed to high ethical standards. As members of the International Federation of Pharmaceutical Manufacturers and Associations (IFPMA) and the European Federation of Pharmaceutical Industries and Associations (EFPIA), we adhere to their codes.

Managing our supply chain

During 2023, the world environment continued to be volatile and uncertain. The geopolitical events, trade sanctions, regulatory changes and high inflation are types of challenges that continue to require rapid operational responses. We continued to successfully meet our responsibilities to patients ensuring supply of our life-saving medicines with robust supply chain operations and reduced end-to-end supply lead times. We delivered increased demand and growth opportunities with flexibility and agility. As the regulatory environment evolves post COVID-19, AstraZeneca continues to deliver industry-leading quality performance. FDA recall data from 2020 to 2023 showed that AstraZeneca had zero recalls during this period.

Supply chain finance

AstraZeneca has a supply chain finance programme to support the cash flow of our external supply base. The programme is managed by Taulia Inc. (with funding provided by some of the Group's relationship banks) and provides suppliers with visibility of invoices and payment dates via a dedicated platform. Suppliers can access this platform free of charge and have flexibility to select individual invoices for early payment. On election of an early payment, a charge is incurred by the supplier based on the period of acceleration, central bank interest rate and the rate agreed between Taulia Inc. and each supplier. All early payments are processed by the funders and AstraZeneca settles the original invoice amount with the funders at maturity of the original invoice due date. The programme operates in the US, UK, Sweden and Germany. As at 31 December 2023, the programme had 432 suppliers enrolled and a potential early payment balance of $112 million. We have a separate programme in China with 29 suppliers enrolled and a potential early payment balance of $11 million.

Responsible supply chain BV

All employees and contractors who source goods and services on behalf of AstraZeneca are expected to follow our Global Standard for Procuring Goods and Services. Through assessments and improvement programmes, including our third-party risk management system, we monitor supplier compliance with our published Global Standard on Expectations of Third Parties and Code of Ethics. In 2023, we conducted 47 audits (2022: 42) on high-risk commercial suppliers (external manufacturing partners) to ensure appropriate practices and controls. Of these, 50% fully met our expectations while 45% had improvement plans for minor instances of non-compliance. There were two audits indicating a high risk to AstraZeneca and action has been taken to mitigate these supply and/or reputational risks. We also use EcoVadis scores to assess and improve supplier sustainability performance.

Our Sustainable Procurement Programme embeds responsible sourcing practices and promotes ethical behaviour, aiming to achieve 100% ethical spend with suppliers who share our Values. This fosters their progress on sustainability, enables us to innovate together and accelerates supplier diversity. Our Supplier Diversity Programme maximises opportunities for small and diverse businesses to be part of our value chain and supports their growth. In 2023, we reached our ambition to have active supplier diversity programmes in 10 countries outside the US by 2025, with Switzerland, Ireland and Canada joining Brazil, South Africa, the UK, Australia, New Zealand, Poland and Sweden.

Global manufacturing capability

Our principal tablet and capsule formulation and packing sites are in the UK, Sweden, China, Puerto Rico and the US, with local supply sites in Egypt, India, Japan and Russia, and regional supply sites in Brazil, Indonesia, France and Mexico. We also have major formulation sites for the global supply of parenteral and/or inhalation products in the US, Sweden, France, Australia and the UK. Most of the manufacture of active pharmaceutical ingredients (APIs) is delivered through the efficient use of external sourcing that is complemented by internal capabilities. For biologics, our principal commercial manufacturing facilities are in the US, Sweden, the UK and the Netherlands. Our network contains capabilities in process development, drug substance, drug product manufacturing and distribution, including global supply of mAbs and influenza vaccines.

In January 2023, we finalised the sale of our West Chester site in Ohio, US, to National Resilience, Inc. This enabled the continued supply of AstraZeneca medicines produced at the site to patients, as well as continued employment for more than 500 people working at the site. We continue to pursue growth opportunities in China. In March 2023, we announced plans for a new facility in Qingdao to manufacture pressurised metered-dose inhalers (pMDIs) for respiratory products. In May 2023, AstraZeneca leased a facility in Rockville, Maryland, US. This facility will be fitted out for cell therapy manufacture to support clinical and commercial supply. In October 2023, we announced our intent to exit our supply site in Bangalore, India.

Alexion has internal manufacturing facilities and also works with third-party contract manufacturers to supply clinical and commercial quantities of our products and product candidates. Our internal manufacturing capability includes a fill/finish facility at our Athlone site and a packaging and labelling facility at our Dublin site. Our drug substance manufacturing capabilities are shared between Athlone and Dublin and we have a large-scale drug substance facility in Dublin.

At the end of 2023, we employed 15,609 people at 27 Operations sites in 16 countries.

IT and IS resources

Demonstrating what is possible when digital technology meets science.

We are already realising the value of our investments in AI, machine learning and deep learning to transform the way we work and accelerate drug discovery. For example, our patent optimiser tool helps our chemists identify the best molecules faster to support patent protection for our scientific breakthroughs. Our scientists and AI engineers use these technologies when solving chemistry, biology, pathology and clinical business problems.

Our investments in AI and new solutions also improve how we launch new medicines and help transform patient outcomes. We are deploying these technologies to enhance the healthcare provider experience, expand our patient assistance programmes and improve how patients navigate the health ecosystem to manage their care. For example, our Rare Disease therapy area uses data and AI to identify patients, drive early diagnoses and accelerate their treatment in areas of high unmet medical need.

We have created a robust, in-house programme for generative AI, identifying eight architecture patterns that cover use cases across AstraZeneca. This framework, which will be rolled out in 2024, ensures we are addressing the ethical, data privacy, legal and procurement requirements needed to fully leverage this new technology in a responsible way.

In Operations, we continue to automate our manufacturing facilities to drive productivity improvement through optimising material and information flow, increasing process yields and driving right first time quality. For example, one of our global 'digital lighthouse' sites in Wuxi, China has already achieved top decile performance in quality, speed and performance through the use of an integrated Lean Digital approach.

We ensure robust governance via the enterprise data office, which empowers the enterprise data council to strengthen the Group's data governance. This approach ensures that our data policies and standards are streamlined, clear and effective.

Our ongoing commitment to training helps our teams take full advantage of fast-developing new technologies to deliver innovation at pace across the organisation. This includes partnering with our HR and Learning & Development teams to upskill the entire organisation to help maximise the benefits of generative AI. We also invest in talent at our Global Technology Innovation Centres in Guadalajara, Mexico and Chennai, India as we prepare to scale our business for future growth.

Accelerating the delivery of enhanced value in Global Operations
Innovative technology platforms will transform the way new medicines are developed, manufactured and launched. Integrating digital solutions, data science and AI with continuous manufacturing platforms will enable shorter lead times, increased productivity and a reduced environmental impact.

For information on how we manage cybersecurity risks, see Risk Overview from page 54.

Growth and Therapy Area Leadership

Business development

Our Business development teams pursue opportunities to access the best science and stimulate innovation. Business development is an essential part of our strategy and portfolio prioritisation process, contributing to accelerating delivery of new medicines targeting unmet medical need.

In business development we assess cutting-edge technologies that can help enhance the quality, effectiveness and productivity of our research and translational capabilities across our key therapy areas. Our wide array of partnerships also includes key innovations across precision medicine and genomics and digital technologies, to deliver medicines to patients more efficiently.

We currently have more than 1,000 ongoing collaborations worldwide and completed more than 20 major, or strategically important, business development transactions in 2023, some of which are summarised below.

In 2023, new deals included:

- The proposed acquisition of clinical-stage biopharmaceutical company Icosavax including their lead vaccine candidate, IVX-A12. This is a potential first-in-class, Phase III-ready, combination protein vaccine that targets both RSV and hMPV, two leading causes of severe respiratory infection and hospitalisation. The acquisition will build on AstraZeneca's expertise in RSV, strengthening our Vaccines & Immune Therapies late-stage pipeline. AstraZeneca will acquire all of Icosavax's outstanding shares for a price of $15.00 per share in cash at closing, plus a non-tradeable contingent value right for up to $5.00 per share in cash, payable upon achievement of a specified regulatory milestone and a sales milestone for up to a total consideration of $1.1 billion, if successful. The transaction is subject to the satisfaction of the conditions in the merger agreement and is expected to close in the first quarter of 2024.
- A worldwide licensing transaction (excluding China) with Eccogene to develop and commercialise AZD5004, a Phase I oral once-daily GLP-1RA for the treatment of obesity, type-2 diabetes and other cardiometabolic conditions. In China, Eccogene has the right to co-develop and co-commercialise alongside AstraZeneca. Eccogene received an upfront payment of $185 million and is eligible to receive another $1.825 billion in future development and commercial milestones and tiered royalties.
- A collaboration and proposed equity investment agreement with Cellectis, a clinical-stage biotechnology company, to leverage the Cellectis proprietary gene-editing technologies and manufacturing capabilities, to accelerate the development of next-generation therapeutics in areas of high unmet medical need. Cellectis received an initial upfront payment of $25 million and an additional equity investment of $80 million, at $5.00 per share, representing approximately 22% in Cellectis. A further $140 million equity investment, at $5.00 per share, is anticipated to close in early 2024, at which time AstraZeneca will hold a total equity stake of approximately 44% in Cellectis.
- A global collaboration, option and licence agreement with Quell Therapeutics to develop multiple engineered Treg cell therapies that have the potential to be curative in type-1 diabetes and inflammatory bowel disease indications. Quell received an upfront payment of $85 million from AstraZeneca, which comprises a predominant cash payment and an equity investment. Quell is also eligible to receive over $2 billion for further development and commercialisation milestones, if successful, plus tiered royalties. In addition, Quell retains an option to co-develop Treg cell therapies from the type-1 diabetes programme with AstraZeneca in the US.
- AstraZeneca purchasing and licensing assets of Pfizer's early-stage rare disease gene therapy portfolio for a total consideration of up to $1 billion, plus tiered royalties on sales. The transaction will help advance next-generation genomic medicines with the addition of complementary pipeline assets and innovative technologies. This includes several novel adeno-associated virus capsids effective for delivering therapeutic gene cargos for gene therapy and gene editing.
- A global exclusive licence agreement with KYM Biosciences for a Phase I ADC targeting Claudin 18.2, a positive therapeutic target in gastric cancer. KYM Biosciences received an upfront payment of $63 million and is eligible to receive additional development and sales-related milestone payments of up to $1.1 billion and tiered royalties.
- The proposed acquisition of Gracell Biotechnologies Inc., a global clinical-stage biopharmaceutical company developing innovative cell therapies for the treatment of cancer and autoimmune diseases. The acquisition will further AstraZeneca's cell therapy ambition and includes the clinical-stage autologous BCMA/CD19 CAR-T therapy targeting haematologic malignancies and autoimmune diseases and a proprietary cell therapy manufacturing platform. AstraZeneca will acquire all of Gracell's fully diluted share capital through a merger for a price of $2.00 per ordinary share in cash at closing (equivalent to $10.00 per ADS of Gracell) plus a non-tradable contingent value right of $0.30 per ordinary share (equivalent to $1.50 per ADS of Gracell) in cash payable upon achievement of a specified regulatory milestone, representing a combined transaction value of approximately $1.2 billion. The transaction is expected to close in the first quarter of 2024.

People and Sustainability

Summary and performance indicators

Our success depends on recruiting, retaining and developing talented people while operating in a responsible and sustainable way.

Our performance in 2023 BV

- Fully integrated Alexion employees.
- Hired 25,660 employees (7,727 internal and 17,933 external).
- 5,290 of these hires were a direct result of our employee referral scheme.
- 4,401 employees attended a development programme (an increase in participation of 9% since 2022).
- 50.1% of our senior middle management roles are filled by women.
- Announced three ground-breaking renewable energy initiatives.
- Reached 66.4 million people through our flagship access to healthcare programmes.
- Published 2023 Partnership for Health System Sustainability and Resilience (PHSSR) Summary Report and expanded the programme in Asia-Pacific.
- Reduced Scope 1 and 2 GHG emissions by 67.6% from 2015 baseline year.
- Raised AZ Forest commitment to 200 million trees planted and stewarded by 2030 (from 50 million by 2025).

Performance indicators BV

People – Contribution to the enterprise

This priority is built on three pillars: performing as an enterprise team, commitment to lifelong learning and development, and being champions of inclusion and diversity.

Performing as an enterprise team[1]

76%

2023	76%
2022	77%
2021	78%

[1] Source: November Pulse full census survey for each year, based on the percentage of favourable responses to the statement 'Based on my experience, I believe there is effective collaboration between teams across AstraZeneca'.

Building a culture of lifelong learning and development[2]

88%

2023	88%
2022	89%
2021	88%

[2] Source: November Pulse full census survey for each year, based on the percentage of favourable responses to the statement 'In the last 12 months, I have improved my existing skills, or learned new skills, or had a development opportunity'.

Being champions of inclusion and diversity[3]

50.1%

2023	50.1%
2022	49.5%
2021	48.1%

[3] Female representation in senior middle management roles and above (F+, the most senior 16% of the employee population).

Performance indicators BV

Sustainability – Contribution to society

We are tackling some of the biggest issues of our time, from climate change to access to healthcare and disease prevention.

Ambition Zero Carbon (Scope 1 and 2)[1]

-67.6%

2023	-67.6%
2022	-58.7%
2021	-58.0%

[1] Reduction of Scope 1 and 2 GHG emissions from 2015 baseline year. The data for 2021 and 2022 has been restated due to a site divestment and change in methodology.

% Speak up culture[2]

83%

2023	83%
2022	83%
2021	83%

[2] Based on internal survey which asked all AstraZeneca employees if they felt comfortable to speak up/speak my mind and express my opinion at work.

People reached by our access to healthcare programmes[3]

66.4m

2023	66.4m
2022	44.6m
2021	31.7m

[3] Cumulative data including current and historical programmes: Healthy Heart Africa, Young Health Programme, Healthy Lung and Phakamisa.

For more information, see People from page 44 and Sustainability from page 46.

People and Sustainability

People

Attracting, retaining and developing talented individuals is key to our growth and success. We achieve this by cultivating a great place to work that values and rewards innovation, entrepreneurship and outstanding performance.

Unlocking the potential of our people
Our award-winning coaching strategy helps employees learn, adapt and grow.

Performing as an enterprise team

Building diverse talent and critical capabilities

In 2023, we successfully completed the integration of Alexion employees into AstraZeneca by:

- Migrating 4,900 employees from Alexion to AstraZeneca.
- Transitioning more than 100 employees from Alexion to AstraZeneca as a result of portfolio realignments.
- Launching more than 200 new learning pathways on Degreed, our training platform.
- Giving Alexion employees access to our CatAlyZe recognition platform – with 30,000 awards issued.
- Holding more than 200 'Go-live' workshops with HR in support of employees and managers.
- Aligning Alexion employees to AstraZeneca employment benefits and policies in 20 countries.

Creating a culture of high performance

Since the removal of performance ratings in 2021, our primary focus has shifted towards coaching, development and the contributions of our employees. To aid managers in developing their teams, we deliver 80 performance development workshops each year. So far these have been attended by over 14,000 line managers. The effectiveness of our performance approach can be seen in the completion rate of end-of-year insights. In our 2023 performance development cycle, 96% of employees and 97% of managers successfully completed their year-end insights promoting accountability and goal alignment, and enabling fair and objective evaluation.

An essential element of our performance development approach is the provision of continuous recognition. In 2023, 535,979 rewards were distributed to 87% of employees through our recognition platform. Notably, 24% of these awards were cross-functional, highlighting the collaborative and cohesive nature of our organisation.

Listening to our workforce

Listening to our workforce is important in ensuring AstraZeneca continues to be a great place to work and we encourage employees to speak their minds. In 2023, feedback mechanisms included onboarding surveys, exit interviews and our global employee engagement survey. The results of our engagement survey are shared with the Board of Directors, Senior Executive Team (SET), line managers and employees to ensure full transparency.

Key highlights:

- 92% participation in global engagement survey.
- 89% of employees stated they believe strongly in AstraZeneca's future direction and key priorities.
- 89% of employees stated they had at least one development discussion with their manager.
- In exit interviews, more than 92% of employees who left said they would consider working at AstraZeneca again.
- We received an average rating of 4.6 out of five from successful hires in our Candidate Experience survey.

Advancing a culture of lifelong learning and development

Central to our success is ensuring our employees, managers and teams have the potential to develop and grow. We develop capabilities through targeted and inclusive development programmes, from early talent to enterprise leaders. Our digital learning portal supports a continuous learning mindset that drives a high-performing and innovative organisation.

Key 2023 highlights demonstrating our progress:

- Invested $33.7 million in the upskilling of our employees, an average spend of $376 per employee.
- 2,040,956 total learning hours, an average of 17.7 hours per employee.
- 69% of employees accessed our global learning platform.
- 4,401 attendees across our development experiences (up 9% since 2022).
- 88% of employees believe they have improved their existing skills, learned new skills or had a development opportunity.

Our development programmes build capabilities for the future, helping us to unlock potential, drive innovation and foster an inclusive culture, building diverse future leaders.

Of our 2023 development experience attendees, 21% were identified as succession candidates for at least one position and 73% of our programme participants are women. The resignation rate for employees who went through a development programme is 8.3%, compared to 10% for AstraZeneca overall. Our programmes are designed to support our People strategy.

During 2023, AstraZeneca received the prestigious International Coaching Federation Distinguished Organisation Impact Award, together with awards for our early talent and diversity programmes.

Champions of inclusion and diversity

Our global commitment to inclusion and diversity (I&D) is woven into everything we do, and is reflected in our Values and the behaviours that underpin them.

Women comprise 53.9% (approximately 47,800) of our global workforce. At the end of 2023, there were six women on our Board (46.2% of the total). Following the retirement of Katarina Ageborg in January 2023 and the appointment of Sharon Barr as Executive Vice-President, BioPharmaceuticals R&D in August 2023, five out of 12 SET members (41.7%) were women at the end of the year. Mene Pangalos will be retiring in early 2024.

Our employees represent a diverse range of backgrounds, coming from 179 countries. In 2023, to promote inclusion and diversity, we have established the Global Inclusion and Diversity Ambassador Group, which is led by senior leaders and sponsored by our CEO. This group reflects the diversity of our global workforce and organisational structure. They are responsible for collaborating with local leaders to customise approaches that address local needs and drive progress towards our global inclusion and diversity commitments.

Our Board of Directors and the SET conduct biannual and quarterly reviews, respectively, of our workforce composition, covering gender, ethnicity and age representation. In the US, where we have more comprehensive data available, 36.7% of our workforce identify as an ethnic minority (2022: 35.7%). In 2023, we rolled out pay equity training to all line managers of US-based employees to ensure equitable reward and compensation.

We are committed to hiring and promoting talent ethically and in compliance with applicable laws. Our Code of Ethics (the Code) and its supporting Standards are designed to help protect against unlawful discrimination on any grounds, including disability. The Code covers recruitment and selection, performance management, career development and promotion, transfer, training (including, if needed, for people who have become disabled), and reward. AstraZeneca embraces the cognitive differences of neurodivergent employees and supports employees with both seen and unseen disabilities in line with their country-specific laws and regulations. Where risk assessments can be performed, we will consider accommodating adjustments to the working environment that support an inclusive and safe workplace. Our Global Standard for Inclusion and Diversity sets out how we foster an inclusive and diverse workforce where everyone feels valued and respected because of their individual abilities and perspectives.

In 2023, our I&D efforts earned recognition externally. We were featured in:

- Forbes World's Top Companies for Women
- Forbes World's Best Employers
- Financial Times, Diversity Leaders
- Diversity Inc. Top 50 Companies for Diversity (US)
- TIME World's Best Companies.

Human rights BV

Our human rights principles support the basic rights of all people, such as the right to health, freedom from slavery, and privacy. Our Code of Ethics, Human Rights Statement and Expectations of Third Parties commit us to respecting and promoting international human rights, both within our own operations but also our wider spheres of influence. This includes working only with third parties who share our approach. To that end, we integrate human rights considerations into our processes and practices. We are also committed to ensuring that there is no modern slavery or human trafficking in our value chains, or any part of our business. Our human rights policies are designed to ensure we consider the impact of our operations including our interactions with third parties on human rights. The output of our work to mitigate human rights risks is detailed in our Modern Slavery Statement which is published annually. We provide assurance annually to the Audit Committee.

Employee relations BV

Our Employee Relations function takes a global approach to employment principles and standards, local laws and good practice. Our ambition is to build a positive and safe working environment for employees through global policies and processes. To achieve this, our Employee Relations function works in partnership with Legal, Compliance, HR and Employee Representative groups, such as the European Consultation Committee, works councils and unions. According to our biennial Human Rights survey, the most recent of which was carried out in 2022, 45% of our countries have a relationship with trade unions. Of those countries that do not have a relationship with trade unions, 95% of them have established arrangements to engage similarly with their workforce.

Workforce safety and health BV

We are committed to providing a safe and healthy working environment for our employees and partners. Our Global Safety, Health and Environment (SHE) Standard describes our commitment to, management of, and accountability for SHE.

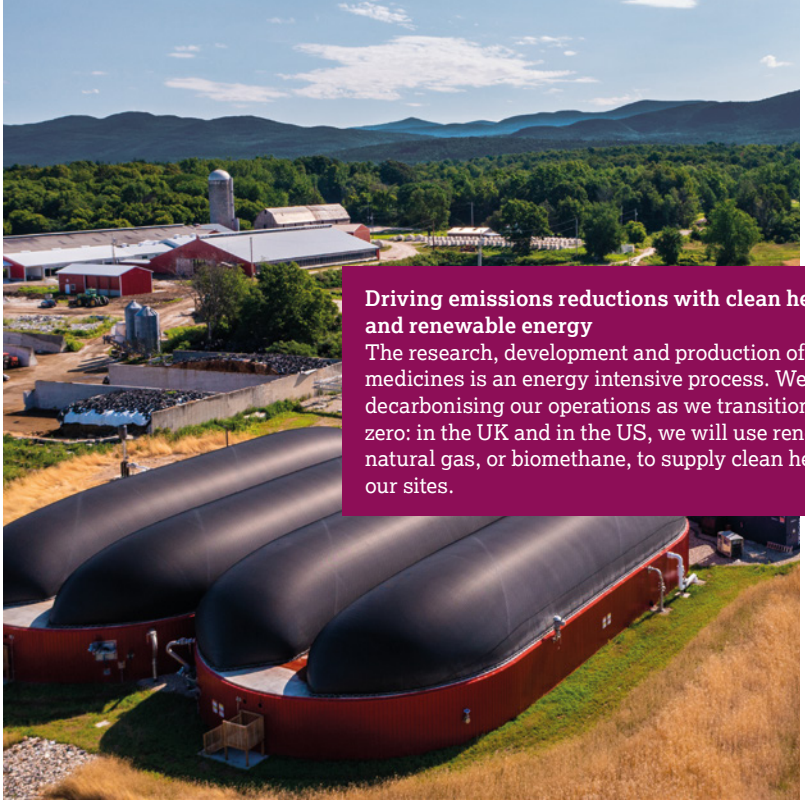
We set and monitor our safety and health targets to support our workforce and aim to achieve the highest performance standards. Our work-related injury rate reduced by 59.6% from the 2015 baseline. AstraZeneca responded to an increasing collision trend in 2022 by developing a safe driving campaign and training endorsed by the Commercial SHE Executive Committee. This campaign continued into 2023 and has shown a positive impact on collisions per million kilometres (CPMK). In 2023, the CPMK was 1.96, exceeding the 2.5 target for the year and on course to meet or exceed the target for 2025 of 1.90.

For more information on our standards and Code of Ethics and for our full statement detailing how we work to mitigate the risks of modern slavery, see our website, www.astrazeneca.com/sustainability/resources.html.

People and Sustainability

Sustainability

Sustainability at AstraZeneca means harnessing the power of science and innovation, and our global reach, to build a healthy future for people, society and the planet.



Driving emissions reductions with clean heat and renewable energy
The research, development and production of medicines is an energy intensive process. We are decarbonising our operations as we transition to net zero: in the UK and in the US, we will use renewable natural gas, or biomethane, to supply clean heat to our sites.

Overview

We seek to create value beyond the impact of our medicines by embedding sustainability into everything we do – from the lab to the patient – and by supporting health system resilience to make sustainable healthcare available to all.

During 2023, we were recognised for our efforts across all our sustainability priorities, including:

- AstraZeneca received a rating of AA (on a scale of AAA-CCC) in the MSCI ESG Ratings assessment.
- Included in Dow Jones Sustainability Index Top 20% of 2,500 of the world's largest companies and in Europe Index.
- Listed in Financial Times European Climate Leaders for the third consecutive year.
- Included in Forbes World's Top Companies for Women.

Our approach to sustainability

Our Purpose to push the boundaries of science to deliver life-changing medicines is underpinned by our commitment to contribute sustainably to people, society and the planet. As a global business, we are playing our part by operating ethically and responsibly, and helping tackle the biggest challenges of our time, including climate change, biodiversity loss and global health equity. These challenges are interdependent and require collaboration to be successfully addressed, implementing a variety of approaches across a network of relationships. By working together to find science-based solutions, we believe we can drive real change and build a better future.

Governance

Our sustainability strategy is developed by the SET, which reviews our sustainability scorecard quarterly, and is approved by the Board. Our Board Sustainability Committee monitors the execution of the sustainability strategy, overseeing the communication of our activities with stakeholders, and providing input to the Board and other Board Committees as required.

Benchmarking and assurance

We contribute to key global environmental, social and governance (ESG) performance evaluations, recognising the value of independent third-party assessment and insights. Our performance is also assessed independently based on the information and data we make publicly available. Bureau Veritas has provided limited independent assurance for the sustainability information contained within this Annual Report and Form 20-F. Assurance is in accordance with the International Standard on Assurance Engagements (ISAE) 3000 (Revised) and ISAE 3410 Assurance Engagements on Greenhouse Gas (GHG) Statements.

Sustainability strategy

We assess the relevance of our material focus areas through continuous dialogue with our stakeholders and horizon-scanning for developments. Since 2021, our nine priority focus areas have been grouped under three interconnected strategic priority pillars:

Access to healthcare	Environmental protection	Ethics and transparency
Equitable access	Ambition Zero Carbon	Ethical business culture
Affordability and pricing	Product sustainability	Inclusion and diversity
Health system resilience	Natural resources	Workforce safety and health

For more information, see:

Our Sustainability Report on www.astrazeneca.com/sustainability/resources.html.

The letter of assurance in the Annual Sustainability Report section on www.astrazeneca.com/sustainability/resources.html.

Board Sustainability Committee Report on page 93.

Sustainability supplementary information on page 230.

Access to healthcare BV

We want to secure a future where all people have access to affordable, sustainable and innovative healthcare, throughout the patient care pathway, from prevention, early detection and diagnosis, to the effective treatment of disease. We are working to remove barriers, deliver innovative medicines and strengthen health system infrastructure and resilience through global and local partnerships, across all our focus areas.

Achievements in 2023

- We reached more than 66 million people (cumulatively) through access to healthcare programmes.
- Healthy Heart Africa trained more than 11,300 healthcare workers (cumulatively) and conducted more than 47 million screenings (cumulatively) for elevated blood pressure.
- Young Health Programme directly reached more than 15 million young people (cumulatively) and trained over 580,000 as Peer Educators since launch in 2010 in more than 40 countries.
- We reached more than 13 million people (cumulatively) through our patient access programmes, enabling sustainable access to AstraZeneca medicines in around 25 countries, most of which were low- and middle-income countries.

Equitable access

Your health should not be determined by who you are, where you live or where you were born. We are working to remove barriers to healthcare and give everyone the chance to be as healthy as possible.

Diversity in clinical trials

We are committed to designing clinical programmes with equity at the forefront, from idea inception to patient care. Our approach is patient-centric, data-driven and science-led. We are improving the diversity of clinical trial participants with strong data foundations, tools and standards for aligning and tracking progress, and external partnerships. We work with industry groups, regulatory agencies, and local community groups to shape clinical trial diversity policies for the future, while delivering for patients today.

Rare diseases

More than 10,000 rare diseases are estimated to exist today, but fewer than 10% have approved treatment options. Rare disease community members face many unique challenges in pursuing equitable access to healthcare, such as significant delays in diagnosis, greater chances of hospitalisation from preventable conditions, scheduling and travelling to appointments, and accessing available treatments.

We believe people with rare diseases deserve the same attention and investment to find and access therapies as anyone else.

As we expand the geographies where our rare disease medicines are available, we continue to build relationships with patient communities early in our development programmes to better understand their needs. We focus on: increasing clinical trial diversity; developing improved data collection processes to enhance our understanding of how rare diseases affect specific patient populations; improving access to diagnostic tools; and supporting efforts to improve the experience of those participating in our clinical trials. We also supply medicines for rare diseases through patient support and access programmes.

Improving access to digital solutions

Through our A.Catalyst Network innovative partnerships, we are harnessing the latest technologies to improve patient outcomes, make healthcare more accessible and personalised, and drive efficiencies in health systems. As participants in EDISON Alliance's One Billion Lives Challenge, we aim to screen five million patients for lung cancer risk by 2025, using AI-based technology in collaboration with Qure.ai.

Affordability and pricing

We are committed to addressing barriers to access and affordability. Industry, policymakers and payers need to work together to identify solutions. Through collaborations, partnerships and stakeholder coalitions, we are working to ensure essential and innovative medicines become more widely available.

Health system resilience

Sustainable healthcare for all requires stronger health systems to deliver an infrastructure designed to be resilient, inclusive and responsive to the needs of the population it serves. We are investing in ground-breaking global collaborations, driving multisectoral policy and action, empowering local partnerships and fast-tracking innovation to expand access to higher quality healthcare.

Partnership for Health System Sustainability and Resilience (PHSSR)

The PHSSR is a non-profit, multisector, global collaboration with a unified goal of building more sustainable and resilient health systems, active in more than 30 countries. PHSSR has commissioned over 20 research reports to date, providing independent, evidence-based recommendations to strengthen health systems and facilitate cross-border best-practice sharing, working with national experts with first-hand experience.

In 2023, PHSSR published its second Summary Report with insights from 18 countries, and launched research on seven new Asia-Pacific countries. PHSSR also established an EU expert advisory group, to support EU policymakers in improving policies on prevention and early detection of NCDs. By fostering joint learning and action through high-level stakeholder engagement at over 40 global, regional and national platforms, the PHSSR catalysed efforts to strengthen health systems around the world.

Healthy Heart Africa programme

Our Healthy Heart Africa programme is committed to reducing hypertension and the burden of cardiovascular disease, aiming to reach 10 million people with elevated blood pressure across Africa by 2025. We work with local and global partners to raise awareness and offer training, screening and reduced cost treatment, where applicable. In 2023, the programme launched in eight of 10 planned grant countries, in addition to the existing nine countries of operation.

Young Health Programme

The multi award-winning Young Health Programme (YHP) aims to empower young people to make more informed choices about their health and catalyse a global, youth-led advocacy movement, supported by community programmes and research. It helps to develop young leaders and is focused on vulnerable and under-resourced communities in 40 countries. Through partnerships with more than 60 non-profit partners around the world including UNICEF, the YHP promotes health literacy and policy action. In 2023, the YHP won the Better Society Award for Partnership with an International Charity together with UNICEF.

Community investment

Community investment at AstraZeneca is built upon the principles of equity, transparency and partnership, working together to build healthy and resilient communities. In 2023, we contributed $115.4 million in financial and non-financial donations, (including product donations), to more than 810 non-profit partners across 76 countries. We also donated $4.7 billion (2022: $3.1 billion) of medicines through patient assistance programmes around the world, the largest of which is our AZ&Me Prescription Savings Program in the US.

Product donation programmes

In 2023, we gave $7.5 million (2022: $12.1 million) in product donations for disaster, humanitarian relief and public health need. We are committed to working with all health system stakeholders to enable the supply of medicine to patients and to support the resilience and recovery of healthcare facilities in vulnerable communities.

For more information, see:

Pricing and value of our medicines on page 39.

Rare Disease from page 28.

Qure.ai case study on page 19.

Sustainability *continued* BV

Environmental protection BV

A healthy environment is critical for human health and health system resilience, already impacted by climate change and the degradation of ecosystems. Science-led climate action and investments in nature and biodiversity are vital to improving health outcomes and proactively managing our environmental impact.

Through our Natural Resource Efficiency Fund, we have invested approximately $175 million in environmental efficiency innovations since 2015. This, together with other central capital investments, has seen a further $36.6 million spent in 2023, including 72 new projects.

Achievements in 2023

- 67.6% reduction in Scope 1 and 2 GHG emissions since 2015.
- 17.5% reduction in energy consumption since 2015.
- 19.9 million trees planted by AZ Forest since 2020.
- 19.5% reduction in water usage and 13.2% reduction in our waste since 2015.
- 99% safe API discharges for AstraZeneca sites and 94% safe API discharges for globally managed first-tier supplier sites.
- 97.6% of paper-based product packaging materials used in 2022 (data collated in 2023) confirmed as supplied from sustainable sources.

Ambition Zero Carbon

Approximately 5% of global GHG emissions come from the healthcare sector. We are accelerating the delivery of net-zero healthcare and our own progress towards net zero, as one of the first companies to have our Scope 1, 2 and 3 targets verified under the Science-Based Targets initiative Net-Zero Corporate Standard.

Near-term targets:

- 98% absolute reduction in Scope 1 and 2 GHG emissions by 2026 from 2015 baseline, maximising transition to electric vehicles in our road fleet (EV100) by end of 2025 and using 100% renewable energy (RE100) for electricity and heat by end of 2025.
- Reduce energy consumption by 10% and double energy productivity (EP100) from 2015 to 2025.
- Launch first next-generation respiratory inhalers with near-zero climate impact propellant from 2025.
- 95% of our suppliers by spend covering purchased goods and services and capital goods, and 50% of our suppliers by spend covering upstream transportation and distribution and business travel, will have science-based targets (SBTs) by 2025.

Longer-term targets:

- 50% reduction in total Scope 3 GHG emissions by 2030 and 90% reduction by 2045, from 2019 baseline.
- Carbon negative for all residual emissions from 2030 and science-based net zero by 2045.
- Transition to next-generation respiratory inhalers with near-zero climate impact propellant across our portfolio by 2030.
- Plant and maintain 200 million trees by 2030, through our global AZ Forest initiative.

Our goal of becoming carbon negative across our value chain from 2030 recognises that total emissions from value chain partners are significantly larger than from our own direct operations. We are embedding net-zero assessments into our existing and future product portfolios, engaging our suppliers to reduce their direct emissions through to 2030 and identifying carbon removal options.

Product sustainability

People and the planet will benefit from those medicines that have the smallest possible environmental impact, yet maintain the highest efficacy and safety standards. As technologies and healthcare systems evolve, so should solutions to reduce the use of energy, water and material, as well as waste and pollution generated from designing, manufacturing and delivering medicines to patients. We are using a data-driven approach through our Life Cycle Assessment (LCA) and Product Sustainability Index programmes to address the largest contributor to our Scope 3 emissions: our product value chains.

In 2023, we continued to focus on the next-generation propellant transition for pMDI products in our respiratory portfolio. The new propellant HFO-1234ze(E) has up to 99.9% lower GWP than propellants currently used in respiratory medicines. As essential, life-saving medicines for millions of respiratory patients globally, they are strategically important to our business and a key product-related element of Ambition Zero Carbon. In 2023, project milestones achieved included further Phase III investment decisions, a harmonised, global development programme, readouts of pivotal studies and initiation of key registration studies.

As part of our commitment to drive thought leadership and innovation to manage pharmaceuticals in the environment, we lead the Innovative Health Initiative PREMIER project, a partnership between the European Commission and the EFPIA. We are developing tools to identify potential environmental risks of APIs and make data more accessible to all stakeholders. In 2023, PREMIER published an evidence-led prioritisation of environmental data generation, aiming to reduce reliance on fish studies.

Natural resources

The conservation and sustainable use of natural resources and the protection and restoration of ecosystems are vital for a healthy future and to tackle the environmental drivers of disease. We are investing in nature to benefit planetary and societal health, while working towards sustainable resource use, water security and halting and reversing biodiversity loss.

Our targets aim to decouple water use and waste generation from business growth and to minimise environmental impacts from our supply chain and operations, supported by efficiency projects, collaboration with suppliers on responsible sourcing, designing out waste and pollution, and landscape restoration targets via AZ Forest.

Circular economy

Adopting circular business approaches and implementing efficient processes to develop and produce our medicines are key to reducing natural resources used in our value chains. We are leveraging our experience with Lean manufacturing and embedding best practices, working with organisations such as My Green Lab. In 2023, we introduced a new internal Site Waste Circularity Rate metric to drive improvements through increased recycling and the external reuse or repurposing of waste materials across all our sites.

Water stewardship

We continue to work with key stakeholders, including our ongoing collaboration with the World Wide Fund for Nature Sweden. Starting in 2024, we will invest $5 million per year to fund nature restoration and water stewardship projects in the communities where we operate.

AZ Forest

In 2023, we announced an increase in our investment to $400 million in our global AZ Forest programme, to plant 200 million trees by 2030 and ensure their long-term survival. This includes new or expanded projects in Brazil, India, Vietnam, Ghana, Rwanda and Kenya, which will contribute to our climate action, promote the restoration of biodiversity and natural habitats, and build community resilience. The programme is expected to restore more than 100,000 hectares worldwide, positively impacting an estimated 80,000 livelihoods and local communities. We are led by guiding principles that provide a baseline for project design and a consistent approach that follows the science. We do not purchase land for reforestation or own the trees, but have the rights to carbon certificates generated by some projects. In 2023, we planted over nine million trees using locally-appropriate species.

Ethics and transparency BV

We seek to create positive societal impact and embed ethical behaviour in all our business activities, markets and value chain. We promote ethical, transparent and inclusive policies internally as well as with our partners and suppliers. It is important that we create value beyond the impact our medicines have on patients. We need to ensure that we retain and increase trust across all our stakeholder groups in order to continue delivering life-changing medicines to patients.

Achievements in 2023

> 50.1% of senior middle management roles are held by women.
> We have 10 countries with supplier diversity programmes outside the US.
> 83% of employee survey respondents feel they can speak their mind at work.

Code of Ethics

We are committed to high ethical standards. Our Code of Ethics (the Code) embodies our Values, expected behaviours, principles and policies. It applies to all Executive and Non-Executive Directors, officers, employees and contract staff of our worldwide Group. The Code empowers employees to make decisions in the best interests of the Group, the communities in which we work and the people we serve. It focuses on why our commitments matter and is at the core of our Compliance Programme. It has been translated into approximately 40 languages and guides employees on how to make the best choices and act in a consistent, responsible way. Our mandatory training reminds employees of our commitments. In 2023, 100% of active employees completed annual training on the Code.

The Code includes high-level Global Policies complemented by Global Standards. We also have additional global, local and functional requirements to support employees in their daily work.

The Code asks employees to report possible violations and provides information on how to do so, including via the AZ Ethics helpline or website. AZ Ethics is also available to third parties. Reports can be made anonymously where desired and permitted by local law. Anyone who raises a potential breach in good faith is fully supported by management; retaliation is not tolerated.

The majority of cases come to our attention through self-reporting to line managers or local Human Resources, Legal or Compliance. In 2023, 470 reports of alleged compliance breaches or other ethical concerns were made through AZ Ethics, including anonymous reports that could be considered whistleblowing (2022: 490).

A Finance Code complements the Code and applies to the CFO, the Group's principal accounting officers (including key finance staff in all overseas subsidiaries) and all managers in the Finance function. This reinforces the importance of the integrity of the Group's Financial Statements, the reliability of the accounting records on which they are based, and the robustness of the relevant controls and processes.

Non-Financial and Sustainability Information Statement

Under sections 414CA and 414CB of the Companies Act 2006, as introduced by the Companies, Partnerships and Groups (Accounts and Non-Financial Reporting) Regulations 2016, and amended by The Companies (Strategic Report) (Climate-related Financial Disclosure) Regulations 2022, AstraZeneca is required to include, in its Strategic Report, a non-financial and sustainability statement containing certain information. As required by these sections, the Strategic Report contains our Climate-related Financial Disclosures (as defined in section 414CB(2A) – see pages 51 to 53), as well as information on the following matters, which include references to our relevant policies, due diligence processes and information on how we are performing against various measures in these areas:

> Anti-bribery and anti-corruption, see page 39
> Code of Ethics, see page 49
> Access to healthcare, see page 47
> Environmental protection, see page 48
> People, see page 44
> Human rights, see page 45.

In relation to the areas listed above, information on the Group's Principal Risks is included in Risk Overview (see from page 54) and information on the non-financial key performance indicators relevant to our business is included in Key Performance Indicators (see from page 12). A description of our business model is contained in Business Model and Life-cycle of a medicine (see from page 10).

Ethical use of AI
Our Enterprise AI Governance team aims to ensure that AstraZeneca can maximise the benefits of AI technologies in a safe, responsible and ethical way.

For more information, see:

Our Sustainability Report on www.astrazeneca.com/sustainability/resources.html.

Our Code, Global Policies and Position Statements on our website, www.astrazeneca.com/sustainability/resources.html.

Champions of inclusion and diversity, and Workforce safety and health, on page 45.

My Green Lab case study on page 37.

EU Taxonomy Disclosure

Assessment

The EU Taxonomy (Regulation (EU) 2020/852) and associated Delegated Acts represent an evolving reporting framework. The EU Taxonomy (Taxonomy) is a classification system for sustainable economic activities. An economic activity is Taxonomy-eligible if it is described in the Taxonomy Delegated Acts. An economic activity is Taxonomy-aligned if it makes a substantial contribution to one or more of the specified environmental objectives, meets specified Do-No-Significant-Harm criteria, and is carried out in compliance with specified minimum social safeguards. In 2023, the EU adopted the new Environmental Delegated Act, which includes pharmaceutical activities.

Information prepared under this disclosure is consistent with our Consolidated Financial Statements for the year ended 31 December 2023, and comparatives, prepared under the basis of preparation detailed in our Group Accounting Policies on page 152.

Capital expenditure (Capex) was assessed for Taxonomy-eligibility on a project basis. Operating expenditures (Opex) were assessed for Taxonomy-eligibility based on the nature of expense. Taxonomy-alignment assessments were conducted on an activity level, based on our Global Standards and Policies. No activity was assessed as fully Taxonomy-aligned in 2023. Double-counting was avoided by reconciliation to underlying financial records.

Interpretation of the EU Taxonomy is required and company-specific assumptions are required to fulfil the reporting requirements. Since no activity was assessed as fully Taxonomy-aligned, we have set out our required disclosures in a simplified format below as the prescribed table formats relating to alignment disclosures are not applicable.

Revenue

The Taxonomy-eligible Revenue KPI is defined as Taxonomy-eligible Revenue divided by Total Revenue, which corresponds to 'Total Revenue' in our Consolidated Statement of Comprehensive Income as detailed on page 148.

The Group's revenues are wholly derived from the business of pharmaceuticals, which we accordingly consider in total for Taxonomy-eligibility under the activity 'Manufacture of medicinal products'. Consequently, our Taxonomy-eligible Revenue KPI for the year ended 31 December 2023 is 100% (2022: 0%). Last year, our business activity of pharmaceuticals was not covered by the EU Taxonomy.

Capital expenditure

The Taxonomy-eligible Capex KPI is defined as Taxonomy-eligible Capex divided by Total Capex.

> Taxonomy-eligible Capex is capex related to assets or processes associated with Taxonomy-eligible activities. Purchase of intellectual property, marketing and distribution rights over medicinal products is considered in total for Taxonomy-eligibility under the activity 'Manufacture of medicinal products'.
> Total Capex corresponds to the total of the 'Additions through business combinations' and 'Capital expenditure' movement types as detailed in Note 7 – Property, plant and equipment (page 169), the total of the 'Additions – separately acquired' and 'Additions through business combinations' movement types as detailed in Note 8 – Leases Right-of-use assets (page 170), and the total of the 'Additions – separately acquired' and 'Additions through business combinations' movement types as detailed in Note 10 – Intangible assets (page 172).

The Group's Taxonomy-eligible Capex KPI for the year ended 31 December 2023 is 83% (2022: 14%).

Operating expenditure

The Taxonomy-eligible Opex KPI is defined as Taxonomy-eligible Opex divided by Taxonomy-defined Opex.

> The Group's Taxonomy-eligible Opex is expenses related to assets or processes associated with Taxonomy-eligible economic activities. R&D expenses are considered in total for Taxonomy-eligibility under the activity 'Manufacture of medicinal products'.
> The Group's Taxonomy-defined Opex is the total of R&D expenses, and other direct non-capitalised costs that relate to building renovation measures, short-term leases, maintenance and repair, and any other direct expenditures incurred in the day-to-day servicing of assets of Property, plant and equipment.

The Group's Taxonomy-eligible Opex KPI for the year ended 31 December 2023 is 99% (2022: 2%).

Taxonomy eligibility and alignment

	Revenue				Capex				Opex			
	2023		2022		**2023**		2022		**2023**		2022	
	$m	**%**	$m	%	**$m**	**%**	$m	%	**$m**	**%**	$m	%
Taxonomy-aligned activities												
No activities were assessed as Taxonomy-aligned												
Taxonomy-eligible but not Taxonomy-aligned												
1.2 Manufacture of medicinal products	**45,811**	**100**	n/a	n/a		**65**		n/a		**96**		n/a
6.5 Transport by motorbikes, passenger cars and light commercial vehicles						**4**		2		**–**		–
7.1 Construction of new buildings						**6**		8		**–**		–
7.2 Renovation of existing buildings					**4,918**	**2**	3,519	2	**11,380**	**–**	10,076	–
7.7 Acquisition and ownership of buildings						**5**		–		**3**		2
8.1 Data processing, hosting and related activities						**1**		1		**–**		–
8.2 Computer programming, consultancy and related activities						**–**		1		**–**		–

Task Force on Climate-related Financial Disclosures Summary Statement BV

Our commitment to climate change

We support the Task Force on Climate-related Financial Disclosures (TCFD) framework. As such, we have made disclosures within the Annual Report consistent with the four TCFD recommendations, the 11 recommended disclosures and all sector guidance, and in compliance with the requirements of Listing Rule 9.8.6R(8) of the UK Financial Conduct Authority (FCA) and in compliance with sections 414CA and 414CB of the Companies Act 2006 and amended by The Companies (Strategic Report) (Climate-related Financial Disclosure) Regulations 2022. Pages 51 to 53 set out the required disclosures in more detail and explain where further information can be found – for example methodology and results – including documents outside this Annual Report.

We have applied the TCFD framework since 2020, initially focusing on the most significant risks and opportunities, with plans to include medium- and low-risk areas indicated by section. All our business operations worldwide are in scope unless otherwise stated.

Key

- Low risk
- Medium risk
- High risk
- Opportunity

Time horizon for impact
Short-term: 1-3 years
Mid-term: 3-7 years
Long-term: 7-25 years

To future-proof our business and build resilience to ensure long-term financial sustainability and the continued supply of medicines to patients, we have screened physical risks from the impacts of climate change across our operations and strategic suppliers. These risks are defined by the cost of interruption and strategic importance, and our assessment includes climate change-related hazards arising under three different scenarios by 2030, 2050 and 2100, including a worst-case scenario (SSP5-RCP 8.5). We prioritised screening results according to business criticality, to identify material sites for deep dive assessments during 2021 and 2023. We also continued to engage with strategic partners with a critical role in patient supply to understand their exposure to climate-related hazards and their resilience to climate change.

For medicines, transition risks and opportunities are screened by using LCA and carbon intensity data. In 2023, we have continued to focus on pMDIs in our respiratory portfolio due to their relative high carbon intensity. We aim to launch our first next-generation pMDI from 2025 and complete the transition to a near-zero Global Warming Potential (GWP) propellant across our portfolio by 2030, as part of our Ambition Zero Carbon strategy to accelerate business decarbonisation while ensuring people can access essential medicines.

Mitigation measures are often already in place to address climate-related risks and opportunities, including transition to a low-carbon economy and net-zero healthcare provision. Physical and transitional climate-related risks are included within a specific risk in the Group's risk landscape 'Failure to meet regulatory or ethical expectations on environmental impact, including climate change'.

For more information, see:

Our 2023 TCFD Statement on our website, www.astrazeneca.com/annualreport2023.

Our CDP response, based on 2023 performance on our approach to climate change, on www.cdp.net/en.

Our Sustainability Report: which describes our overall approach and progress, on our website, www.astrazeneca.com/sustainability/resources.html.

The Risk Supplement on our website, www.astrazeneca.com/annualreport2023.

Our strategy and GHG emissions reduction targets and progress, from page 12, and on pages 43 and 48.

Climate risk summarised

Risk or opportunity	Time horizon Short/Mid/Long	Potential impact	How it is managed
Physical risks	● ● ●	Disruption to own and third-party supplier sites: > Increased extreme heat events and cooling needs impacting compliance with Good Manufacturing Practice. > Heavy rainfall causing local flooding and/or landslides. > High winds damaging structures. > Lack of a consistent high-quality water supply.	Identified risks are embedded within planning of nature-based or technical mitigations, integrated into site master plans and local business continuity plans. Climate risks are mitigated through supply chain design and product-level business continuity management. Appropriate water management strategies are being established across our manufacturing sites and the broader supply chain.
Transition risks and opportunities	● ● ●	Some healthcare providers are transitioning to net-zero healthcare systems to meet their own climate targets, which may alter the demand for medicinal products based on their carbon footprint.	SBTs and strategy for net-zero emissions by 2045, including transition to near-zero GWP propellant across our respiratory portfolio from 2025 to 2030.
	● ● ●	New EU Fluorinated-gas (F-gas) Regulation and per- and polyfluoroalkyl substances (PFAS) restriction proposal presented to the European Chemicals Agency (ECHA) and potential impact on our transition to next-generation, near-zero GWP propellant HFO-1234 ze(E).	We believe the necessary safeguards and sufficient quota will remain available within the forthcoming EU F-gas Regulation to transition our pMDI portfolio safely to next-generation, near-zero GWP propellant by 2030. In response to the ECHA public consultation, we have recommended that HFO-1234 ze(E) should be excluded from the proposed universal ban to ensure patient access to essential life-saving pMDI medicines is maintained.
	● ● ●	Carbon pricing uncertainty over future environmental taxation and regulation.	Delivery of the Ambition Zero Carbon strategy mitigates exposure to future value chain pricing and taxation.
	● ● ●	Supply/demand of renewable energy requires higher investment. Changes in geopolitics can lead to loss of access.	Investment of approximately $175 million in our natural resource reduction programme since 2015, including $25.5 million in 2023, and collaborations with key partners to scale renewable energy sources and secure supply chain access.
	● ● ●	Change in raw material or sourcing costs, as well as costs related to the transition to low-carbon technologies.	Ongoing engagement with strategic supply chain partners on their transition plans to a low-carbon economy and possible impacts on cost.

Task Force on Climate-related Financial Disclosures Summary Statement BV *continued*

Key

- TCFD Statement
- Annual Report
- Sustainability Report

TCFD framework and recommended disclosures	AstraZeneca current status	Links to more information on key developments
Governance		
Describe the Board's oversight of climate-related risks and opportunities.	The Board Sustainability Committee monitors the execution of our sustainability strategy, including climate-related matters. The Board Audit Committee is responsible for overseeing sustainability-related disclosures that are linked to the Company's Financial Statements.	pages 2 to 3 pages 46, 93 and 96 page 6
Describe management's role in assessing and managing climate-related risks and opportunities.	Our CEO's responsibilities to the Board include the development and performance of our climate strategy and related risks and opportunities. Our EVP, Global Operations, IT & Chief Sustainability Officer, is responsible for the overall sustainability strategy and its execution, including Ambition Zero Carbon and alignment of business priorities with climate risks and opportunities. The Ambition Zero Carbon Governance Group is accountable for the delivery of our Ambition Zero Carbon strategy. The TCFD Steering Group coordinates management of physical and transitional climate risks and opportunities.	pages 2 to 3 page 46 pages 6 and 16
Strategy		
Describe the climate-related risks and opportunities the organisation has identified over the short, medium, and long term.	Physical risks from climate change primarily relate to disruption or delays to manufacturing and/or distribution, including cold chain logistics, increased insurance premiums, reputational damage, and other resulting consequences – see table on page 51. Transition risks and opportunities are primarily regulatory and market changes, and/or pressure and ability to reduce product carbon footprints and decarbonise our value chain – see table on page 51.	pages 5 to 10 pages 16 to 19
Describe the impact of climate-related risks and opportunities on the organisation's businesses, strategy, and financial planning.	Taking into account climate-related risks and opportunities, we are taking enterprise-wide action to reduce GHG emissions from our global operations and fleet by 98% by 2026 (from a 2015 baseline) with a $1 billion spend budgeted from 2020. We aim to halve our entire value chain footprint (Scope 3) by 2030, on a pathway to achieve a 90% reduction in emissions by 2045 (from a 2019 baseline). In 2023, we increased our investment in nature-based solutions to $400 million through AZ Forest, to mitigate our residual emissions and reach our net-zero SBTs to prepare for a low-carbon economy, and contribute to community and nature resilience with broader co-benefits. Our transition plan to net zero is disclosed in our Sustainability Report as a response to FCA requirement 2021/61 9.8.6F.	pages 5 to 10 pages 16 to 21
Describe the resilience of the organisation's strategy, taking into consideration different climate-related scenarios, including a 2°C or lower scenario.	We build resilience by addressing the physical and transitional risks and opportunities across the value chain. We have used three different climate-related scenarios (RCP 2.6, 4.5 and 8.5). We are building resilience against a worst-case scenario (RCP 8.5) in our supply chain by investing in mitigation in at-risk sites, supply chain design, and inventory levels, to manage interruption risks. No material business impact from such short-term events is currently foreseen. Value chain decarbonisation, with net-zero targets aligned to a 1.5°C scenario, will secure low-carbon economy resilience and scale opportunities in progressive markets.	pages 1, 4 and 6

TCFD framework and recommended disclosures	AstraZeneca current status	Links to more information on key developments
Risk management		
Describe the organisation's processes for identifying and assessing climate-related risks.	Integrated climate assessments inform the enterprise of specific risks and opportunities posed by climate change and/or transition to a low-carbon economy. Each business area is responsible for managing identified climate risks related to its area.	pages 1 to 3 and 5 to 7 pages 54, 55 and 96 pages 16 to 23
Describe the organisation's processes for managing climate-related risks.	We have screened and assessed physical risks from climate change across our operations and strategic suppliers to understand our exposure in the value chain at a product level. Identified risks are addressed in local business continuity plans or by technical mitigations in site master plans. Mid- and long-term financial planning includes required investments. To understand the financial consequences of transition to a low-carbon economy, risks and opportunities are assessed both at enterprise and product levels for examples of medicines where LCA data is available. Our Ambition Zero Carbon strategy is reducing our GHG footprint, mitigating some transition risks, and protecting revenue.	pages 1 to 3 and 5 to 10 pages 48, 54, 55 and 96 pages 16 to 23
Describe how processes for identifying, assessing, and managing climate-related risks are integrated into the organisation's overall risk management.	Identified risks at corporate level are cascaded throughout the organisation. Business unit management have responsibility for risks in their area. Risks identified at local level are managed locally and escalated to functional and/or enterprise level if significant, in line with our established enterprise risk management framework.	pages 1 to 3 and 5 to 7 pages 54, 55 and 96 pages 16 to 23
Metrics and targets		
Disclose the metrics used by the organisation to assess climate-related risks and opportunities in line with its strategy and risk management process.	Scope 1 and 2 GHG emissions are reported in line with World Resources Institute GHG Protocol guidance and disclosed in our Sustainability Report on our website, www.astrazeneca.com/sustainability/resources.html.	page 11 pages 48 and 230 pages 17 to 19 and 32 to 34
Disclose Scope 1, Scope 2 and, if appropriate, Scope 3 GHG emissions and the related risks.	GHG footprint and progress towards all targets are reported in line with World Resources Institute GHG Protocol guidance and disclosed in our Sustainability Report on our website, www.astrazeneca.com/sustainability/resources.html.	pages 48 and 230 pages 17 to 19 and 32
Describe the targets used by the organisation to manage climate-related risks and opportunities and performance against targets.	Relevant metrics and KPIs in our Sustainability Report show progress on decarbonisation and reduced exposure to transition risks, as well as showing future opportunities. Achieve 98% absolute reduction in Scope 1 and Scope 2 GHG emissions by 2026 from a 2015 baseline.	pages 1 to 2 page 48 pages 17 to 19 and 32

Risk Overview

"Our Principal Risks are those risks that are most likely to have a material impact on our business."

Managing risk

Our approach to risk management is designed to encourage clear decision making on which risks we take and how we manage these risks. We strive to embed sound risk management in our strategy, planning, budgeting and performance management processes. The Board defines the Group's risk appetite. This enables the Group, in both quantitative and qualitative terms, to judge the level of risk it is prepared to take in achieving its overall objectives. The Board expresses the acceptable levels of risk for the Group using three key dimensions. These are: (i) earnings and cash flow, (ii) return on investment and (iii) ethics and reputation. Annually, the Group develops a detailed three-year bottom-up business plan and 10-year long-range projection to support the delivery of its strategy. The Board considers these in the context of the Group's risk appetite. Adjustments are made to the plan or risk appetite to ensure they remain aligned.

The SET is required by the Board to oversee and monitor the effectiveness of the risk management processes implemented by management. Within each SET function, leadership teams discuss the risks the business faces. Quarterly, each SET function assesses changes to these risks, new and emerging risks and mitigation plans. These are assimilated into a Group Risk Report for the Board, Audit Committee and SET.

Global Compliance, Finance and Global Internal Audit support the SET by advising on policy and standard setting, monitoring and auditing, communication and training, as well as reporting on the adequacy of line management processes as they apply to risk management. The Board believes that existing processes provide it with adequate information on the risks and uncertainties we face. The Board has carried out a robust assessment of the Principal and emerging risks facing the Group. Our Principal Risks are those risks that are most likely to have a material impact on our business and are a subset of the total risk landscape facing the Group. The table on pages 56 and 57 provides insight into these Principal Risks.

Emerging risks

Emerging risks are 'new' risks that have the potential to crystallise in the future but are unlikely to impact the business during the next year. The outcome of such risks is often more uncertain. They may begin to evolve rapidly or simply not materialise.

We monitor our business activities and external and internal environments for new, emerging and changing risks to ensure these are managed appropriately. Annually, we combine input from each SET function and external insight to scan the horizon for emerging risks and a summary is presented to the Audit Committee and Board. Emerging risks continue to be monitored as part of the ongoing risk management processes outlined above.

Climate risk

The identification and assessment of climate risk form part of our existing risk management processes. 'Failure to meet regulatory and ethical expectations on environmental impact, including climate change' is a component of the Group's risk landscape but is not currently considered to be a Principal Risk for the Group.

We support the TCFD framework and continue to develop our disclosures in line with its recommendations. Our TCFD Summary Statement from page 51 summarises the work undertaken to date to understand the potential impact of climate change on our business and outlines future areas of management focus.

Cybersecurity risk

Our approach to identifying, assessing and managing material cybersecurity risks (including those that result from the use of third parties in business processes and data management) is integrated within our Group-wide approach to managing risk. Failure in information technology or cybersecurity has been identified as a Principal Risk. Mitigations are in place to manage these risks, and these are monitored, and their effectiveness regularly reported, for example, in KPI dashboards provided to management and the Audit Committee. Incidents are managed and reported using the cybersecurity incident management framework which in turn is connected to the Group's crisis management framework. Cybersecurity risks are overseen by the Audit Committee, which performs an in-depth review annually. Its reviews are supported by senior management, the VP, Group Internal Audit and other assurance or providers as required. Cybersecurity risks (including previous incidents) have not materially affected our business strategy, results of operations or financial condition.

Viability statement

In accordance with provision 31 of the 2018 UK Corporate Governance Code, the Board has determined that a three-year period to 31 December 2026 constitutes an appropriate period over which to provide its viability statement.

The Board assesses the Company's prospects using a 10-year long-range projection. It notes the rich and varied portfolio of medicines in development across a range of therapy areas and the medicines currently commercialised in more than 100 markets and concludes that the Company's long-term prospects remain strong. The Board also considers annually and on a rolling basis, a three-year bottom-up detailed business plan and, given the inherent uncertainty involved, believes that the three-year statement presents readers of this Annual Report with a reasonable degree of assurance over the ongoing viability of the Company while still providing a longer-term perspective.

The three-year detailed business plan captures risks to the sales and cost forecasts at a market and SET function level. The plan is used to perform central net debt and headroom profile analysis. The following scenarios have been applied to this analysis to create a severe but plausible downside combining a number of the Principal Risks detailed from pages 56 to 57.

- **Principal Risks**: Pricing, affordability, access and competitive pressures; failures or delays in the quality or execution of the Group's commercial strategies.
  - **Scenario 1** – Government action on pricing, higher than anticipated competition and other commercial headwinds result in lower than anticipated growth rates for our medicines.
  - **Scenario 2** – A significant incident leads to reputational damage in a key market resulting in an ongoing 10% reduction in revenue achieved in this market.
- **Principal Risk**: Failure or delay in the delivery of our pipeline or launch of new medicines.
  - **Scenario 3** – Assumes no launches of new products.
- **Principal Risk:** Failure to maintain supply of compliant, quality medicines.
  - **Scenario 4** – Major equipment failure or significant regulatory observation at one of our major manufacturing sites results in a 12-month loss of formulation capability for one of our key oncology products leading to supply interruption.
- **Principal Risks**: Failure in information technology or cybersecurity; adverse outcome of litigation and/or government investigations.
  - **Scenario 5** – Legal, regulatory, cyber or other non-compliance results in a payment of $500 million in 2025.

In addition, the Board has considered more stressed scenarios, including restrictions on debt factoring and no access to capital markets to raise new debt. In each scenario (or combination of scenarios above), the Group is able to rely on its existing cash, cash equivalents and short-term fixed income investments, committed credit facilities, leveraging its cost base, reducing capital expenditure and taking other cash management measures to mitigate the impacts and still have residual capacity to absorb further shocks.

Based on the results of this analysis, the Directors have a reasonable expectation that the Company will be able to continue in operation and meet its liabilities, as they fall due, over the three-year period of their assessment.

"We monitor our business activities and external and internal environments for new, emerging and changing risks to ensure these are managed appropriately."

Full details are given in the Risk Supplement on our website, www.astrazeneca.com/annualreport2023.

Risk Overview
continued

Strategy key

- Science and Innovation
- People and Sustainability
- Growth and Therapy Area Leadership
- Achieve Group Financial Targets

Trend key

- Increasing risk
- Decreasing risk
- Unchanged

Principal Risks

Risk category and Principal Risks	Context/potential impact	Management actions	Trend versus prior year
Product pipeline risks			
Failure or delay in the delivery of our pipeline or launch of new medicines	The development of pharmaceutical product candidates is a complex, risky and lengthy process involving significant resources. A project may fail at any stage of the process due to a number of factors, which could adversely affect our future business and results of operations.	> Prioritise and accelerate our pipeline. > Strengthen pipeline through acquisitions, licensing and collaborations. > Focus on innovative science in our main therapy areas. > Improve R&D productivity.	Unchanged
Failure to meet regulatory or ethical requirements for medicine development or approval	We are subject to laws and regulations that control our ability to market our pharmaceutical products. Delays in regulatory approvals could delay our ability to market our products and may adversely affect our revenue.	> Quality management systems incorporating monitoring, training and assurance activities. > Collaborating with regulatory bodies and advocacy groups to monitor and respond to changes in the regulatory environment, including revised processes, timelines and guidance.	Unchanged
Commercialisation risks			
Pricing, affordability, access and competitive pressures	Global economic, political and social pressures are creating an ever more challenging environment in which we operate. Global financial pressures may lead to the implementation of further cost containment measures by payers which could have an adverse effect on our business results.	> Implement pricing, reimbursement and policy frameworks. > Focus on key products. > Demonstrate value of medicines/health economics. > Implement innovative value-based agreements focused on patient outcomes. > Global footprint. > Diversified portfolio.	Increasing risk. Global economic and political conditions placing downward pressure on healthcare pricing and spending and therefore on revenue and innovation.
Failures or delays in the quality or execution of the Group's commercial strategies	A failure to execute our commercial strategies or achieve the level of sales anticipated for a medicine could materially impact our business results.	> Focus on key products. > Substantial investment in sales and marketing activities. > Accelerate execution of plans and risk share through business development and strategic collaborations and alliances.	Unchanged
Supply chain and business execution risks			
Failure to maintain supply of compliant, quality medicines	Supply chain difficulties may result in product shortages which could lead to lost product sales and materially affect our reputation and revenues.	> Establishment of new manufacturing facilities, creating capacity and technical capability to support new product launches. > Contingency plans, including dual sourcing, multiple suppliers and close monitoring and maintenance of stock levels. > Business continuity and resilience initiatives, disaster and data recovery, and emergency response plans. > Quality management systems.	Unchanged
Failure in information technology or cybersecurity	Significant disruption to our IT systems, including breaches of data security or cybersecurity, or failure to comply with applicable laws or regulations could harm our reputation and materially affect our financial condition or results of operations.	> Cybersecurity incident management framework and dashboard. > Disaster and data recovery plans. > Strategies to secure critical systems and processes. > Regular cybersecurity and privacy training for employees.	Increasing risk. Growing multi-faceted cyber threat.
Failure to attract, develop, engage and retain a diverse, talented and capable workforce	The inability to attract and retain highly-skilled personnel may weaken our succession plans for critical positions, impact the implementation of our strategic objectives, and ultimately result in the failure of our business operations.	> Targeted recruitment and retention strategies deployed to secure critical skills and capabilities. > Development of our employees. > Evolve our culture.	Unchanged

Risk category and Principal Risks	Context/potential impact	Management actions	Trend versus prior year
Legal, regulatory and compliance risks			
Safety and efficacy of marketed medicines is questioned	Safety concerns relating to our products may lead to recalls, seizures, interruption of supply and loss of product approvals, which could adversely affect patient access, our reputation and our revenues. Significant product liability claims could also arise, which may be costly, divert management attention, reduce demand for our products and damage our reputation.	> Robust processes and systems in place to manage patient safety and efficacy trends as well as externally reported risks through regulatory agencies and other parties. This includes a comprehensive pharmacovigilance programme supplemented by close monitoring and review of adverse events.	⇔
Adverse outcome of litigation and/or governmental investigations	Our business is subject to a wide range of laws and regulations around the world. Actual or perceived failure to comply may result in AstraZeneca being investigated by government agencies and authorities and/or in civil legal proceedings. Government investigations, litigations, and other legal proceedings, regardless of outcome, could be costly, divert management attention, or damage our reputation and demand for our products. Unfavourable resolutions to proceedings against us could subject us to criminal liability, fines, penalties or other monetary or non-monetary remedies, including enhanced damages, require us to make significant provisions in our accounts relating to legal proceedings and could materially adversely affect our business or results of operations.	> Established compliance framework with strong ethical and compliance culture. > Combined internal and external counsel management.	⇔
IP risks related to our products	The pharmaceutical industry is experiencing pressure from governments and other payers to impose limits on intellectual property (IP) protections to manage healthcare costs. If we are unable to obtain, defend and enforce our IP, we may experience accelerated and intensified competition.	> Active management of IP rights and IP litigation.	⇔
Economic and financial risks			
Geopolitical and/or macro-economic volatility disrupts the operation of our global business	Operating in more than 100 countries, we are subject to political, socio-economic and financial factors around the world. A sustained global economic downturn may adversely impact our business. Geopolitical tensions may lead to the imposition or escalation of trade controls, tariffs, taxes or other restrictions to market access, which may increase our costs or reduce revenues.	> Focus on key products. > Demonstrate value of medicines/health economics. > Diversified portfolio.	⇔
Failure to achieve strategic plans or meet targets or expectations	Failure to successfully implement our business strategy may frustrate the achievement of our targets and materially damage our brand, business, financial position or results of operations.	> Focus on key products and innovative science in our core therapy areas. > Strengthen pipeline through acquisitions, licensing and collaborations. > Appropriate capital structure and balance sheet. > Portfolio-driven decision-making process governed by senior executive-led committees.	⇔

Financial Review

"AstraZeneca achieved Total Revenue of $45.8 billion in 2023, with growth of 3% (CER: 6%), including $1.4 billion of Alliance Revenue and $0.6 billion of Collaboration Revenue. Excluding COVID-19 medicines, Total Revenue increased by 13% (CER: 15%)."

2023 was a year of strong business performance, with sustained revenue growth and excellent pipeline progress.

2023 represented another year of excellent performance. We started the year with several operational uncertainties, including revenues from our COVID-19 mAbs and certain other products. Despite some of these risks materialising, the vast majority of the portfolio outperformed expectation, leading to an exceptional year. This speaks to the strength of our diversified portfolio and geographic footprint. Our R&D teams are progressing novel medicines and we continue to enhance our portfolio though business development and mergers and acquisitions. At the same time, we continue to optimise 'how work is done', expanding services offered in our shared business Centres of Excellence. Our colleagues across functions remain focused on quality, reporting, controls, cybersecurity, and supply, while incorporating a mindset of continuous improvement.

Total Revenue growth

AstraZeneca achieved Total Revenue of $45.8 billion in 2023, including $1.4 billion of Alliance Revenue and $0.6 billion of Collaboration Revenue with growth of 3% (CER: 6%). 2023 delivered 13 blockbuster medicines in total. Excluding COVID-19 medicines, Total Revenue increased by 13% (CER: 15%) in the year.

Product Sales grew by 2% (CER: 4%) to $43.8 billion, with 12 blockbuster medicines, including *Ultomiris*, *Soliris* and *Strensiq* from our Rare Disease portfolio. Our continued investment in Oncology and CVRM medicine launches supported sustained Product Sales growth, with Oncology achieving 17% (CER: 20%) and CVRM achieving 15% (CER: 18%). Standout performances came once again from *Farxiga* ($6.0 billion), *Tagrisso* ($5.8 billion) and *Imfinzi* ($4.2 billion). Within our Rare Disease portfolio, *Soliris* achieved Product Sales of $3.1 billion but saw a decline of 16% (CER: 14%) due to the successful conversion to *Ultomiris*, which had growth of 51% (CER: 52%) to $3.0 billion in the year. In the US, we had overall growth of 4%, with Product Sales of $18.0 billion. In Emerging Markets, Product Sales grew by 1% (CER: 8%) to $11.8 billion, with growth in CVRM and *Tagrisso*. In Europe, Product Sales increased by 9% (CER: 7%) to $9.0 billion, reflecting strong performances from Oncology and *Forxiga* and in Established Rest of World markets, there was a decline of 14% (CER: 8%) to $5.0 billion due to mandatory pricing reductions of *Tagrisso* in Japan and the drop off in demand for COVID-19 medicines.

Alliance Revenue increased by 89% (CER: 89%) to $1.4 billion, including $1.0 billion from *Enhertu*, which achieved blockbuster status for the first time. Collaboration Revenue declined by 1% (CER: 1%) to $0.6 billion.

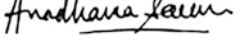
Profitability

Reported EPS was $3.84 in the year (2022: $2.12) and Core EPS was $7.26 (2022: $6.66) driven by improved Product Sales Gross Margin from Total Revenue growth and a decline in sales of lower margin COVID-19 medicines.

Key milestones/approvals

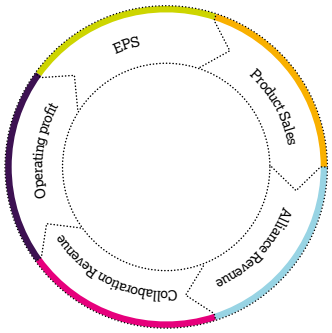
Our continued investment in the pipeline yielded several significant approvals and milestones in the year, including regulatory approval in the US for *Truqap* in breast cancer, *Wainua* (eplontersen) in transthyretin-mediated amyloid polyneuropathy and *Beyfortus* for the prevention of RSV in infants. In Japan, in January 2024, *Voydeya* was approved for the treatment of anaemia due to extravascular haemolysis.

2023 also afforded me the opportunity to engage with a number of our stakeholders – from investors to key opinion leaders and physicians at congresses, and from employees to government officials. This brought to light how special a place AstraZeneca truly is. Our stakeholders see AstraZeneca as a company on the forefront of science with a broad ambition to continuously improve health, our communities and our planet. During all my interactions, I have been impressed with the engagement, energy and passion of my colleagues and humbled by the privilege of working with an amazing set of people. 2024 will bring more change and we will continue to evolve while remaining true to our Values.



Aradhana Sarin
Chief Financial Officer

Highlights
Financial performance



Product Sales
$43.8bn
2% growth
(CER: 4%)

Alliance Revenue[1]
$1.4bn
89% growth
(CER: 89%)

Collaboration Revenue[1]
$0.6bn
-1% decrease
(CER: -1%)

Operating profit – Reported
$8.2bn
118% growth
(CER: >2x)

Operating profit – Core
$14.5bn
9% growth
(CER: 14%)

EPS – Reported
$3.84
81% growth
(CER: 96%)

EPS – Core
$7.26
9% growth
(CER: 15%)

Total Revenue: Therapy Areas

Oncology
19%
growth
(CER: 21%)

CVRM
15%
growth
(CER: 18%)

Rare Disease
10%
growth
(CER: 12%)

Respiratory & Immunology
7%
growth
(CER: 10%)

Vaccines & Immune Therapies
-72%
decrease
(CER: -71%)

Other Medicines
-31%
decrease
(CER: -27%)

Total Revenue: Geographical Areas

US
6%
growth

Emerging Markets
2%
growth
(CER: 9%)

Europe
10%
growth
(CER: 8%)

Established RoW
-14%
decrease
(CER: -8%)

Summary performance in 2023

	Reported			CER			Core		
	2023 $m	2022 $m	% Actual change	CER growth[2] $m	Growth due to exchange effects $m	% CER change	2023 $m	2022 $m	% Actual change
Product Sales	**43,789**	42,998	**2**	1,786	(995)	4	**43,789**	42,998	2
Alliance Revenue	**1,428**	755	**89**	670	3	89	**1,428**	755	89
Collaboration Revenue	**594**	598	**(1)**	(7)	3	(1)	**594**	598	(1)
Total Revenue	**45,811**	44,351	**3**	2,449	(989)	6	**45,811**	44,351	3
Cost of sales	**(8,268)**	(12,391)	**(33)**	4,141	(18)	(34)	**(8,011)**	(8,588)	(7)
Gross profit	**37,543**	31,960	**17**	6,590	(1,007)	21	**37,800**	35,763	6
Operating expenses	**(30,690)**	(28,717)	**7**	(2,305)	332	8	**(24,545)**	(22,860)	7
Other operating income and expense	**1,340**	514	**>2x**	825	1	>2x	**1,279**	447	>2x
Operating profit	**8,193**	3,757	**>2x**	5,110	(674)	>2x	**14,534**	13,350	9
Net finance expense	**(1,282)**	(1,251)	**2**	(16)	(15)	1	**(984)**	(974)	1
Share of after tax losses of joint ventures and associates	**(12)**	(5)	**>2x**	(6)	(1)	>2x	**(12)**	(5)	>2x
Profit before tax	**6,899**	2,501	**>2x**	5,088	(690)	>2x	**13,538**	12,371	9
Taxation	**(938)**	792	**n/m**	(1,855)	125	n/m	**(2,291)**	(2,058)	11
Profit after tax	**5,961**	3,293	**81**	3,233	(565)	96	**11,247**	10,313	9
Basic earnings per share ($)	**3.84**	2.12	**81**	2.09	(0.37)	96	**7.26**	6.66	9

[1] Effective 1 January 2023, the Group has updated the presentation of Total Revenue. For further details of the presentation of Alliance Revenue and Collaboration Revenue, see the Basis of accounting and preparation of financial information on page 152.
[2] As detailed on page 61, CER growth is calculated using prior year actual results adjusted for certain exchange rate effects, including hedging.

Business background and results overview

The business background is covered in the Healthcare in a Changing World section from page 7, the Therapy Area Review from page 16, and the Our Strategy and Key Performance Indicators section from page 12, which describe in detail the business developments of our products.

As described earlier in this Annual Report, sales of our products are directly influenced by medical need and are generally paid for by health insurance schemes or national healthcare budgets. Our operating results can be affected by a number of factors other than the delivery of operating plans and normal competition.

Over the longer term, the success of our R&D is crucial and we devote substantial resources to this area. The benefits of this investment are expected to emerge over the long term and there is considerable inherent uncertainty as to the scale and timing of outcomes and their transition to saleable products.

Measuring performance

Reported and Core performance are referred to in this Financial Review when reporting on our performance in absolute terms, but more often in comparison with earlier years:

- **Reported performance** takes into account all the factors (including those which we cannot influence, such as currency exchange rates) that have affected the results of our business. The Consolidated Financial Statements have been prepared in accordance with UK-adopted IAS and with the requirements of the Companies Act 2006 as applicable to companies reporting under those standards. The Consolidated Financial Statements also comply fully with IFRS Accounting Standards as issued by the IASB and IAS as adopted by the EU.
- **Core performance** measures are adjusted to exclude certain significant items, using a set of established principles.

Use of non-GAAP performance measures

Core performance measures, EBITDA, Net debt, CER, Product Sales Gross Margin (formerly termed Gross Margin) and Operating Margin are non-GAAP performance measures because they cannot be derived directly from the Financial Statements.

By disclosing non-GAAP performance and growth measures, in addition to our Reported financial information, we are enhancing investors' ability to evaluate and analyse the financial performance and trends of our ongoing business and the related key business drivers. The adjustments are made to our Reported financial information in order to show non-GAAP performance measures that illustrate clearly the impact on our performance of factors such as changes in revenues and expenses driven by volume, prices and cost levels relative to such prior years or periods. These non-GAAP performance measures are not a substitute for, or superior to, financial measures prepared in accordance with GAAP.

As shown in the 2023 Reconciliation of Reported results to Core results table on page 62, our reconciliation of Reported financial information to Core performance measures includes a breakdown of the items for which our Reported financial information is adjusted, and a further breakdown by specific line item as such items are reflected in our Reported income statement. This illustrates the significant items that are excluded from Core performance measures and their impact on our Reported financial information, both as a whole and in respect of specific line items.

Management presents these results externally to meet investors' requirements for transparency and clarity. Core financial measures are also used internally in the management of our business performance, in our budgeting process and when determining compensation. As a result, Core performance measures allow investors to differentiate between different kinds of costs but they should not be used in isolation.

Our determination of non-GAAP measures, and our presentation of them within this Financial Review, may differ from similarly titled non-GAAP measures of other companies.

The SET retains strategic management of the costs excluded from Reported financial information in arriving at Core financial measures, tracking their impact on Reported Operating profit and EPS, with operational management being delegated on a case-by-case basis to ensure clear accountability and consistency for each cost category.

We strongly encourage readers of this Annual Report not to rely on any single financial measure but to review our Financial Statements, including the Notes thereto, and our other publicly filed reports, carefully and in their entirety.

Further details of the risks faced by the business are given in Risk Overview from page 54 and in the Risk Supplement at www.astrazeneca.com/annualreport2023.

For a detailed definition of Core measures, see page 61.

Readers should also refer to our Reported financial information in the Summary performance in 2023 table on page 59, our reconciliation of Core performance measures to Reported financial information in the 2023 Reconciliation of Reported results to Core results table and the Excluded from Core results table on page 63, for our discussion of comparative growth measures that reflect all factors that affect our business.

Non-GAAP measures: definitions

Revenue

Constant exchange rate (CER) growth rates

Reconciliation, see page 62

Definition: Retranslation of the current year's performance at the previous year's average exchange rates, adjusted for other exchange effects, including hedging.

Why we use them: CER measures allow us to focus on the changes in revenues and expenses driven by volume, prices and cost levels relative to the prior period. Revenues and cost growth expressed in CER allow management to understand the true local movement in revenues and costs, in order to compare recent trends and relative return on investment. CER growth rates can be used to analyse revenues in a number of ways but, most often, we consider CER growth by products and groups of products, and by countries and regions.

CER revenue growth can be further analysed by revenue volumes and selling price. Similarly, CER cost growth helps us to focus on the real local change in costs so that we can manage the cost base effectively.

Limitations: CER measures are not always better indicators of performance. Where countries are subject to high inflation and currencies that depreciate persistently, adjusting out the effect of foreign exchange fluctuations could give an overly optimistic view of growth.

Profitability

Core performance measures

Reconciliation, see page 62

Core performance measures are adjusted to exclude certain significant items. In determining the adjustments to arrive at the Core result, we use a set of established principles relating to the nature or materiality of individual items or groups of items, excluding, for example, events which are (i) outside the normal course of business, (ii) incurred in a pattern that is unrelated to the trends in the underlying financial performance of our ongoing business, or (iii) related to major acquisitions, to ensure that investors' ability to evaluate and analyse the underlying financial performance of our ongoing business is enhanced.

Our Core adjustments are summarised as:

Restructuring costs, including charges that relate to the impact of our global restructuring programmes on our capitalised manufacturing facilities and IT assets. These can take place over multiple reporting periods, given the long life-cycle of our business.

Why we use them: We adjust for these charges and provisions because they primarily reflect the financial impact of change to legacy arrangements, rather than the underlying performance of our ongoing business.

Intangible amortisation and impairments, including impairment reversals but excluding any charges relating to IT assets. Intangibles generally arise from business combinations and individual licence acquisitions.

Why we use them: We adjust for these charges because their pattern of recognition is largely uncorrelated with the underlying performance of the business.

Alexion acquisition-related items, primarily fair value adjustments on acquired inventories and fair value impact of replacement employee share awards.

Why we use them: We adjust for this item to enable a more meaningful comparison of the performance of acquired business and products to that of internally developed products, as well as removing charges whose pattern of recognition is largely uncorrelated to the underlying performance of the business.

Other specified items, principally the imputed finance charges and fair value movements relating to contingent consideration on business combinations, imputed finance charges and remeasurement adjustments on certain Other payables arising from intangible asset acquisitions, legal settlements and remeasurement adjustments relating to Other payables assumed from the Alexion acquisition.

Why we use them: We adjust for these items to enable a more meaningful comparison of the performance of acquired businesses and products to that of internally developed products, as well as removing charges whose pattern of recognition is largely uncorrelated to the underlying performance of the business.

It should be noted that some costs excluded from our Core results, such as intangibles amortisation and finance charges related to contingent consideration, will recur in future years, and other excluded items such as impairments and legal settlements costs, along with other acquisition-related costs, may recur in the future.

Limitations: Core results exclude significant costs (such as restructuring, intangible amortisation and impairments, and other acquisition-related adjustments), but incorporate associated benefits, including Product Sales arising from business combinations, asset acquisitions and assets which have been amortised, as well as the benefits resulting from restructuring activities and, as such, they should not be regarded as a complete picture of the Group's financial performance, which is presented in its Reported results. The exclusion of the adjusting items may result in Core earnings being materially higher or lower than Reported earnings.

Product Sales Gross Margin

Reconciliation, see page 62.

Definition: Product Sales Gross Margin (formerly termed Gross Margin) is the percentage by which Product Sales exceeds the Cost of sales, calculated by dividing the difference between the two by the sales figure. The calculation of Reported and Core Product Sales Gross Margin excludes the impact of Alliance Revenue and Collaboration Revenue and any associated costs, thereby reflecting the underlying performance of Product Sales.

Why we use it: This measure sets out gross profitability of Product Sales when taking account of only direct Cost of sales. It is a key performance measure of the contribution to fund operating costs and overall quality of the business.

Limitations: Product Sales Gross Margin percentage excludes the impact of Alliance Revenue and Collaboration Revenue and related costs and therefore should not be regarded as giving a full picture of Total Revenue performance.

Non-GAAP measures: definitions
continued

Operating Margin percentage

Reconciliation, see table below.

Definition: Operating profit as a percentage of Total Revenue.

Why we use it: This measure sets out profitability derived from operating activities before the impact of finance costs and tax. It is a key performance measure of the overall quality of the operations of the business.

Limitations: Operating Margin percentage excludes the impact of financing costs and therefore should not be regarded as a full picture of revenue performance.

EBITDA

Reconciliation, see page 67.

Definition: Reported Profit before tax plus Net finance expense, Share of after-tax losses of joint ventures and associates, and charges for Depreciation, amortisation and impairment.

Why we use it: EBITDA allows us to understand our baseline profitability, removing any 'non-operational' expenses and non-cash items that are not considered by management to be reflective of the underlying performance of the Group.

Limitations: EBITDA does not take account of the cost of investment to generate revenues, hence is not always the best indicator of performance.

Cash flow and liquidity

Net debt

Reconciliation, see page 69.

Definition: Interest-bearing loans and borrowings and Lease liabilities, net of Cash and cash equivalents, Other investments and Net derivative financial instruments.

Why we use it: Net debt is a measure that provides valuable additional information regarding the Group's net financial liabilities and is a measure commonly used by investors and rating agencies. It facilitates the tracking of one of our key financial priorities: deleveraging.

2023 Reconciliation of Reported results to Core results

	2023 Reported $m	Restructuring costs $m	Intangible amortisation and impairments $m	Acquisition of Alexion $m	Other[1] $m	2023 Core[2] $m	Core 2023 compared with Core 2022[2] Actual growth %	Core 2023 compared with Core 2022[2] CER growth %
Gross profit	**37,543**	**109**	**32**	**119**	**(3)**	**37,800**	**6**	**9**
Product Sales Gross Margin %	***81.1***					***81.7***		
Distribution expense	**(539)**	**–**	**–**	**–**	**–**	**(539)**	**1**	**2**
Research and development expense	**(10,935)**	**212**	**447**	**7**	**2**	**(10,267)**	**8**	**9**
Selling, general and administrative expense	**(19,216)**	**207**	**3,801**	**11**	**1,458**	**(13,739)**	**7**	**9**
Other operating income and expense	**1,340**	**(61)**	**–**	**–**	**–**	**1,279**	**>2x**	**>2x**
Operating profit	**8,193**	**467**	**4,280**	**137**	**1,457**	**14,534**	**9**	**14**
Operating Margin %	***17.9***					***31.7***		
Net finance expense	**(1,282)**	**–**	**–**	**–**	**298**	**(984)**		
Taxation	**(938)**	**(107)**	**(809)**	**(32)**	**(405)**	**(2,291)**		
Basic earnings per share ($)	**3.84**	**0.23**	**2.24**	**0.07**	**0.88**	**7.26**	**9**	**15**

2022 Reconciliation of Reported results to Core results

	2022 Reported $m	Restructuring costs $m	Intangible amortisation and impairments $m	Acquisition of Alexion $m	Other[1] $m	2022 Core[2] $m	Core 2022 compared with Core 2021[2] Actual growth %	Core 2022 compared with Core 2021[2] CER growth %
Gross profit	31,960	266	32	3,506	(1)	35,763	28	35
Product Sales Gross Margin %	*71.2*					*80.0*		
Distribution expense	(536)	2	–	–	–	(534)	20	28
Research and development expense	(9,762)	111	124	27	–	(9,500)	19	24
Selling, general and administrative expense	(18,419)	405	4,165	38	985	(12,826)	15	21
Other operating income and expense	514	(67)	–	–	–	447	(70)	(69)
Operating profit	3,757	717	4,321	3,571	984	13,350	34	42
Operating Margin %	*8.5*					*30.1*		
Net finance expense	(1,251)	–	–	–	277	(974)		
Taxation	792	(165)	(804)	(832)	(1,049)	(2,058)		
Basic earnings per share ($)	2.12	0.36	2.27	1.77	0.14	6.66	26	33

[1] See Excluded from Core results table on following page for further details of other adjustments.
[2] Each of the measures in the Core columns is a non-GAAP measure.

Excluded from Core results

Restructuring costs	> Restructuring costs totalling $467 million (2022: $717 million) mainly comprise those incurred on the Post Alexion Acquisition Group Review (PAAGR) of $362 million (2022: $675 million).
Intangible amortisation and impairments	> Amortisation totalling $3,846 million (2022: $4,080 million) relating to intangible assets, except those related to IT. Further information on our intangible assets is contained in Note 10 to the Financial Statements from page 172. Intangible impairment charges were $434 million (2022: $318 million), excluding those related to IT. Further details relating to intangible asset impairments are included in Note 10 to the Financial Statements from page 172.
Acquisition of Alexion	> Costs associated with our acquisition of Alexion in July 2021 amounting to $137 million (2022: $3,571 million), primarily relating to the impact from the unwind of the fair value adjustment to Alexion inventories at the date of acquisition. In 2023, the impact of the fair value uplift unwind on Cost of sales is $114 million (2022: $3,484 million). The majority of the fair value uplift unwound through Reported Cost of sales in line with associated revenues in 2022. > The fair value of replacement employee share awards is higher than both the value of the Alexion awards the employees were originally granted and the expected value of future awards to those employees. As a result, the Group will recognise an inflated expense during the remaining vesting period of these awards. This temporary increase in Operating expenses, when compared with the expected expense based on the grant-date value, will be excluded from the Group's Core results. > Other acquisition-related items to be excluded from the Group's Core results include professional fees, retention bonuses included in the acquisition agreement and the effect of unwinding other acquisition-related fair value adjustments over time.
Other	> Other adjustments, excluding taxation adjustments, amounted to $1,755 million (2022: $1,261 million). > Other adjustments to Reported SG&A expenses were $1,458 million (2022: $985 million), primarily including a charge to legal provisions of $425 million in relation to *Nexium* and *Losec*/*Prilosec* product liability litigation, $510 million in relation to Bristol-Myers Squibb Co. and E.R. Squibb & Sons, LLC and $70 million in relation to Alexion shareholder litigation. Other adjustments also include $549 million (2022: $82 million) net fair value adjustments relating to contingent consideration balances, and a credit of $111 million (2022: a charge of $82 million) of remeasurement adjustments relating to Other payables. Further details relating to contingent consideration balances are contained in Note 20 to the Financial Statements from page 181, and further details of legal proceedings, ongoing at 31 December 2023, are contained within Note 30 to the Financial Statements from page 204. > Other adjustments to Net finance expense of $298 million (2022: $277 million) include discount unwind charges on liabilities arising from business combinations and on liabilities resulting from the *Enhertu* collaboration agreement. > Other adjustments to Taxation amounted to $405 million (2022: $1,049 million). Adjustments to Taxation in 2022 included a one-time favourable net adjustment of $876 million to deferred taxes arising from an internal reorganisation to integrate Alexion.

Product Sales

	2023 Product Sales $m	2022 Product Sales $m	Actual growth %	CER growth %
Product Sales by Therapy Area				
Oncology	**17,145**	14,631	**17**	**20**
CVRM	**10,585**	9,188	**15**	**18**
Rare Disease	**7,764**	7,053	**10**	**12**
Respiratory & Immunology	**6,107**	5,765	**6**	**8**
Vaccines & Immune Therapies	**1,012**	4,736	**(79)**	**(78)**
Other Medicines	**1,176**	1,625	**(28)**	**(24)**
Total	**43,789**	42,998	**2**	**4**

	2023 Product Sales $m	2022 Product Sales $m	Actual growth %	CER growth %
Product Sales by geographical area				
US	**17,961**	17,254	**4**	**4**
Emerging Markets	**11,751**	11,634	**1**	**8**
Europe	**9,029**	8,264	**9**	**7**
Established RoW	**5,048**	5,846	**(14)**	**(8)**
Total	**43,789**	42,998	**2**	**4**

Total Revenue[1]

Total Revenue for 2023 was up 3% (CER: 6%) to $45,811 million, comprising Product Sales of $43,789 million, up 2% (CER: 4%), Alliance Revenue[1] of $1,428 million, an increase of 89% (CER: 89%), and Collaboration Revenue[1] of $594 million, a decrease of 1% (CER: 1%).

[1] Effective 1 January 2023, the Group has updated the presentation of Total Revenue. For further details of the presentation of Alliance Revenue and Collaboration Revenue, see Basis of accounting and financial information on page 152.

Product Sales

By geography

US Product Sales were up 4% to $17,961 million, reflecting the continued growth of our Oncology medicines and *Farxiga*, which had growth of 35%, with recent launches in HF and CKD driving an increase in market share. Product Sales in Emerging Markets grew by 1% (CER: 8%) to $11,751 million in 2023 with growth in CVRM, Respiratory & Immunology and *Tagrisso*. Product Sales in ex-China Emerging Markets remained broadly flat (CER: growth of 8%) at $5,884 million, with increases in Oncology and *Farxiga* offset by declines in COVID-19 medicines. In Europe, Product Sales grew by 9% (CER: 7%) to $9,029 million, reflecting a strong performance in Oncology and *Forxiga* but also reflecting COVID-19 medicines decline. Established Rest of World Product Sales decreased by 14% (CER: 8%) to $5,048 million, with sales in Japan down 9% (CER: 1%) to $3,654 million, driven by decline in COVID-19 medicines partially offset by increases in Oncology.

By Product

2023 succeeded in delivering 12 blockbuster drugs.

Our largest selling products in the year were *Farxiga* ($5,963 million), *Tagrisso* ($5,799 million), *Imfinzi* ($4,237 million), *Soliris* ($3,145 million), and *Ultomiris* ($2,965 million). *Farxiga* sales increased by 36% (CER: 39%), with continued volume growth across all major regions driven by launches in HF and CKD. *Tagrisso* sales grew by 7% (CER: 9%) reflecting a strong performance from increased demand across all markets. *Imfinzi* Product Sales grew by 52% (CER: 55%), with increased use worldwide driven by new launches and established indications. *Soliris* declined by 16% (CER: 14%) due to the successful conversion to *Ultomiris*, which increased by 51% (CER: 52%).

Calquence continued its growth with an increase of 22% (CER: 23%) in the year to $2,514 million driven by increased market penetration globally, including increased new patient starts in Europe and sustained US performance.

Within Vaccines & Immune Therapies, Product Sales declined by 79% (CER: 78%) due to fulfilment of contracts signed during the pandemic.

Alliance Revenue

	2023 $m	2022 $m
Alliance Revenue		
Enhertu	**1,022**	523
Tezspire	**259**	79
Beyfortus	**57**	–
Vaxzevria: royalties	**–**	76
Other royalty income	**81**	68
Other Alliance Revenue	**9**	9
Total Alliance Revenue	**1,428**	755

Collaboration Revenue

	2023 $m	2022 $m
Collaboration Revenue		
Lynparza/Koselugo (MSD): regulatory milestones	**245**	355
COVID-19 mAbs: licence fees	**180**	–
Farxiga: sales milestones	**29**	–
tralokinumab (Leo Pharma A/S): milestones	**20**	110
Beyfortus: regulatory milestones	**71**	25
Beyfortus: sales milestones	**27**	–
Nexium: sale of rights	**–**	62
Other Collaboration Revenue	**22**	46
Total Collaboration Revenue	**594**	598

Alliance Revenue

Alliance Revenue increased in the year by 89% (CER: 89%), to $1,428 million, including $1,022 million Alliance Revenue from *Enhertu*, which achieved blockbuster status for the first time in 2023.

Details of our significant business development transactions which give rise to Alliance Revenue are given below.

Enhertu (Daiichi Sankyo)

In March 2019, AstraZeneca announced it had entered into an alliance with Daiichi Sankyo to develop and commercialise *Enhertu* for multiple cancer types. In markets where Daiichi Sankyo is selling the product, AstraZeneca is entitled to receive a royalty (in Japan) or a share of costs and income (in other territories). Share of gross profits and royalty income from Daiichi Sankyo are recognised as Alliance Revenue. *Enhertu* launched in the US on 31 December 2019.

Alliance Revenue in respect of this agreement has been recognised as follows:

> Prior to 2023, AstraZeneca recognised $806 million in respect of Alliance Revenue.
> In 2023, AstraZeneca recognised Alliance Revenue of $1,022 million leading to *Enhertu* achieving blockbuster status in the year.

Tezspire (Amgen)

In 2012, AstraZeneca entered into a collaboration agreement with Amgen to co-develop and co-commercialise five development stage programmes. Of these, only AMG 157 (*Tezspire* tezepelumab) remains in the collaboration. A second active molecule (AZD8630) was added in 2021. Manufacturing will be undertaken by Amgen, while commercialisation activity will be undertaken either jointly, or by AstraZeneca or Amgen individually, dependent on the market and on the agreed terms.

AstraZeneca will recognise 100% of the sales as principal in all markets other than the US, as well as 100% of the associated cost of sales. In markets other than the US, where AstraZeneca is recognising sales, the share of gross margin payable to Amgen will be shown as additional cost of sales. In the US, where Amgen is recognising sales, AstraZeneca will record its share of gross profit as Alliance Revenue.

Alliance Revenue in respect of this agreement has been recognised as follows:

> Prior to 2023, AstraZeneca recognised $79 million in respect of Alliance Revenue.
> In 2023, AstraZeneca recognised Alliance Revenue of $259 million.

Beyfortus (Sanofi)

In March 2017, AstraZeneca entered into an alliance with Sanofi to develop and commercialise *Beyfortus* jointly. Under the terms of the global agreement, Sanofi made an upfront payment of €120 million and will pay up to €495 million upon achievement of certain development and sales-related milestones. All costs and profits are shared equally. The US element of this collaboration was subject to a participation agreement with Sobi, effective from January 2019 until April 2023, at which point there was an update to the contractual relationships between AstraZeneca, Sobi and Sanofi relating to the future sales of *Beyfortus*. Alliance Revenue recognises AstraZeneca's 50% share of gross profits on sales of *Beyfortus* in major markets outside the US.

Alliance Revenue in respect of this agreement has been recognised as follows:

> In 2023, AstraZeneca recognised Alliance Revenue of $57 million.

Collaboration Revenue

Collaboration Revenue decreased in the year by 1% (CER: 1%) to $594 million.

Details of our significant business development transactions which give rise to Collaboration Revenue are given below.

Lynparza/Koselugo (MSD)

In July 2017, the Group announced a global strategic oncology collaboration with MSD to co-develop and co-commercialise AstraZeneca's *Lynparza* for multiple cancer types. As part of the agreement, MSD will pay AstraZeneca up to $8.5 billion in total consideration, including $1.6 billion upfront, $750 million for certain licence options and up to $6.2 billion contingent upon successful achievement of future regulatory and sales milestones. Of the upfront payment of $1.6 billion, $1.0 billion was recognised as Collaboration Revenue on deal completion in 2017, with the remaining $0.6 billion deferred to the balance sheet, of which less than $0.1 billion remains for 2023. AstraZeneca records all Collaboration Revenue of *Lynparza* and *Koselugo*; amounts due to MSD under the collaboration will be recorded under Cost of sales.

Collaboration Revenue in respect of this agreement has been recognised as follows:

> Prior to 2023, AstraZeneca recognised Collaboration Revenue totalling $2,865 million, comprising $750 million resulting from the exercise of options, $1,400 million in respect of sales-related milestones and $715 million in respect of regulatory milestones.
> In 2023, AstraZeneca recognised Collaboration Revenue of $245 million in respect of regulatory milestones.

COVID-19 mAbs (SII)

In June 2023, AstraZeneca entered into a sub-licence, commercialisation and manufacturing rights agreement with the Serum Institute of India Ltd (SII) for *Evusheld* and AZD3152 in India.

Collaboration Revenue in respect of this agreement has been recognised as follows:

> In 2023, AstraZeneca recognised Collaboration Revenue of $180 million resulting from licence fees.

Beyfortus (Sanofi)

Details of this business development transaction are summarised in the Alliance Revenue section on page 65.

Collaboration Revenue in respect of this agreement has been recognised as follows:

> Prior to 2023, AstraZeneca recognised Collaboration Revenue totalling $186 million, comprising $127 million resulting from upfront consideration and $59 million in respect of regulatory milestones.
> In 2023, AstraZeneca recognised Collaboration Revenue of $71 million in respect of regulatory milestones, and $27 million in respect of sales-related milestones.

Tralokinumab (Leo Pharma A/S)

In June 2016, AstraZeneca and Leo Pharma A/S entered into a licence agreement for the global development and commercialisation of tralokinumab.

Collaboration Revenue in respect of this agreement has been recognised as follows:

> Prior to 2023, AstraZeneca recognised Collaboration Revenue of $115 million in respect of the upfront consideration and $110 million in sales-related milestones.
> In 2023, AstraZeneca recognised Collaboration Revenue of $20 million in respect of sales-related milestones.

Gross profit

Reported Gross profit increased by 17% (CER: 21%) to $37,543 million. Core Gross profit increased by 6% (CER: 9%) to $37,800 million. Reported Product Sales Gross Margin grew by 10 (CER: 10) percentage points to 81.1%. Core Product Sales Gross Margin grew by two (CER: two) percentage points to 81.7%. Both Reported and Core Product Sales Gross Margin reflected positive product mix effects from Rare Disease and Oncology medicines, negative product mix effects from rising contributions of products with share of gross profit arrangements, and negative geographic mix effects as Emerging Markets grew as a proportion of Total Revenue. Reported Gross Margin was impacted by the fair value adjustment to Alexion inventories. The fair value uplift unwind through Cost of sales in 2023 was $114 million (2022: $3,848 million).

Operating expenses

Reported Operating expenses increased by 7% (CER: 8%) in the year to $30,690 million. Core Operating expenses increased by 7% (CER: 9%) to $24,545 million.

Reported R&D expense increased by 12% (CER: 13%) to $10,935 million and Core R&D expense increased by 8% (CER: 9%) to $10,267 million. Both Reported and Core R&D expense were impacted by recent positive data readouts for several high priority medicines and increased investment in new platforms, technologies and capabilities. Reported R&D expense also includes intangible asset impairment charges of $417 million; an increase of $322 million from 2022, which includes $244 million related to the impairment of the ALXN1840 intangible asset, following the decision to discontinue this development programme in Wilson disease.

Reported SG&A expense increased by 4% (CER: 6%) to $19,216 million and Core SG&A expense increased by 7% (CER: 9%) to $13,739 million. Both Reported and Core SG&A expense increases were driven primarily by market development activities for launches. Reported SG&A expense was impacted by amortisation of intangible assets related to the Alexion acquisition and other acquisitions and collaborations. Reported SG&A expense was also impacted by a $510 million charge to provisions relating to a legal settlement with Bristol-Myers Squibb and Ono Pharmaceutical, and a $425 million charge to provisions for product liability litigations related to *Nexium* and *Prilosec*. The prior year Reported SG&A expense was impacted by a $775 million legal settlement with Chugai Pharmaceutical Co. Ltd.

Other operating income and expense

Reported Other operating income and expense in the year was up 161% (CER: 160%) to $1,340 million. Core Other operating income and expense in the year was up 186% (CER: 186%) to $1,279 million. For 2023, both Reported and Core Other operating income and expense were impacted by a gain of $712 million on replacement of the contractual relationship between AstraZeneca, Sobi and Sanofi with a royalty relationship between Sanofi and Sobi and income of $241 million on the disposal of the US rights to *Pulmicort Flexhaler*.

2022 included royalties and disposal proceeds on small divestments including the divestment of rights to *Plendil*.

In accordance with our Collaboration Revenue definition in the Group Accounting Policies from page 152, proceeds from these divestments are recorded as Other operating income and expense and comprise the majority of Other operating income and expense for the year.

Operating profit

Reported Operating profit increased by 118% (CER: 134%) to $8,193 million in the year. The Reported Operating Margin increased by nine percentage points (CER: 10) to 17.9% of Total Revenue. Core Operating profit grew by 9% (CER: 14%) in the year to $14,534 million.

Net finance expense

Reported Net finance expense increased by 2% (CER: 1%) in the year to $1,282 million. Core Net finance expense increased by 1% (CER: decreased by 1%) in the year to $984 million. Reported Net finance expense was impacted by the discount unwind on acquisition-related liabilities. Core Net finance expense increased due to higher interest received on cash and short-term investments, broadly offset by higher rates on floating debt and bond issuances.

Profit before tax

Reported Profit before tax increased to $6,899 million (2022: $2,501 million). Core Profit before tax increased by 9% (CER: 15%) to $13,538 million. Pre-tax adjustments to arrive at Core Profit before tax amounted to $6,639 million in 2023 (2022: $9,870 million), comprising $6,341 million adjustments to Operating profit (2022: $9,593 million) and $298 million to Net finance expense (2022: $277 million).

Reconciliation of Reported Profit before tax to EBITDA

	2023 $m	2022 $m	Actual growth %	CER growth %
Reported Profit before tax	**6,899**	2,501	**>2x**	**>2x**
Net finance expense	**1,282**	1,251	**2**	**1**
Share of after tax losses of joint ventures and associates	**12**	5	**>2x**	**>2x**
Depreciation, amortisation and impairment	**5,387**	5,480	**(2)**	**(1)**
EBITDA	**13,580**	9,237	**47**	**55**

EBITDA

EBITDA increased by 47% (CER: 55%) to $13,580 million in the year (2022: $9,237 million) and was negatively impacted by the $114 million unwind of inventory fair value uplift recognised on the acquisition of Alexion.

Taxation

The Reported tax rate for the year was 14% and the Core tax rate in the year was 17% and included a favourable adjustment of $828 million to deferred taxes arising from a UK Group company undertaking a routine intragroup purchase of certain intellectual property which was offset by updates to tax liabilities following progress of reviews by tax authorities and administrative appeal processes, and derecognition of deferred tax assets following changes to forecast taxable income of specific subsidiaries.

The income tax paid for the year was $2,366 million. This was $1,428 million higher than the Reported tax charge for the year, which benefited from a net deferred tax credit of $1,507 million (2022: $2,428 million), relating to the aforementioned $828 million deferred tax credit on the intragroup purchase of certain intellectual property, intangible amortisation and impairments, and other deferred tax items, partially offset by updates to estimates of prior period tax liabilities following progress of reviews by tax authorities and administrative appeal processes, and the timing differences for cash tax payments. Additional information on these items is contained in Note 4 to the Financial Statements from page 164.

We pay corporate income taxes, customs duties, excise taxes, stamp duties, employment and many other business taxes in all jurisdictions in which we operate. We also collect and pay employee taxes and other indirect taxes such as value-added tax in these jurisdictions.

Total comprehensive income

Total comprehensive income increased by $4,279 million to a profit of $6,694 million in 2023. Other comprehensive income, net of tax was $733 million, an increase of $1,611 million. This income was primarily driven by foreign exchange arising on consolidation gains of $608 million (2022: losses of $1,446 million) and tax credits on items that will not be reclassified to profit or loss of $101 million (2022: charge of $216 million) offset by remeasurement of the defined benefit pension liability losses of $406 million (2022: gains of $1,118 million).

EPS

Reported EPS was $3.84 in the year (2022: $2.12). Core EPS was $7.26 (2022: $6.66).

Restructuring

Post Alexion Acquisition Group Review (PAAGR)

In conjunction with the acquisition of Alexion in 2021, the enlarged Group initiated a comprehensive review, aimed at integrating systems, structure and processes, optimising the global footprint and prioritising resource allocations and investments. These activities are expected to be substantially complete by the end of 2026, with a number of planned activities having commenced in late 2021 and during 2022 and 2023.

During 2023, the Group identified all remaining activities and finalised the scope of the programme. These additional activities, alongside updated estimates of the existing planned activities, have resulted in an increase to the expected one-time restructuring costs of $0.6 billion, of which an insignificant amount are non-cash costs, and an increase in capital investments of $0.7 billion. This includes the commencement of work on the planned upgrade of the Group's Enterprise Resource Planning IT systems (Axial Project), which is expected to be substantially complete by the end of 2030, resulting in capital investments for software assets of $0.7 billion and one-time restructuring cash costs of $0.3 billion, over the full course of the project. Anticipated annual run-rate pre-tax benefits have increased by $0.5 billion, and are expected to be realised by the end of 2026. This excludes significant strategic and compliance-related benefits resulting from the Axial Project, as a result of transforming core enterprise-wide processes, harmonising systems architecture and enabling future digital capabilities.

Consequently, the total programme activities are now anticipated to incur one-time restructuring costs of approximately $3.6 billion, of which approximately $2.5 billion are cash costs and $1.1 billion are non-cash costs, and capital investments of approximately $1.6 billion. Run-rate pre-tax benefits, before reinvestment, are now expected to be approximately $2.4 billion by the end of 2026. In line with established practice, restructuring costs will be excluded from our Core (non-GAAP) financial measures.

During 2023, the Group has recorded restructuring charges of approximately $0.4 billion in relation to the PAAGR (2022: $0.7 billion), bringing the cumulative charges to date under this programme to $2.1 billion. Of these costs, $0.7 billion are non-cash costs arising primarily from impairments and accelerated depreciation on affected assets.

As at 31 December 2023, the PAAGR has realised annual run-rate pre-tax benefits, before reinvestment, of $1.3 billion.

Other programmes

The Global Post Pandemic New Ways of Working programme that was initiated in 2020 in response to the changing business environment, accelerated by the COVID-19 pandemic, is now substantially complete and has delivered changes that reflect the increasing utilisation of digitisation and technology, as well as the new ways of working that reflect the size, nature and footprint of commercial teams, enabling functions, R&D and operations. Costs incurred in 2023 and 2022 were insignificant.

Legacy programmes include: the 2016 plan to redeploy investment to key disease areas, particularly Oncology; the centralisation of our global R&D footprint into three strategic centres; transformation of the IT organisation and closure of a number of manufacturing facilities; and the transformation of SG&A functions (principally Finance and HR). Net costs for legacy programmes in 2023 were $92 million (2022: $45 million).

The aggregate restructuring charge incurred in 2023 across all our restructuring programmes was $467 million (2022: $717 million). Final estimates for programme costs, benefits and headcount impact in all functions are subject to completion of the requisite consultation in the various areas.

Our priority, as we undertake these restructuring initiatives, is to work with our affected employees on the proposed changes, acting in accordance with relevant local consultation requirements and employment law.

For more information regarding the AstraZeneca tax policy, see our website, www.astrazeneca.com/policies.

Cash flow and liquidity – for the year ended 31 December 2023

Net cash generated from operating activities was $10,345 million (2022: $9,808 million). This primarily reflects an underlying improvement in business performance.

Net investment cash outflows were $4,638 million (2022: $2,906 million).

Investment cash outflows for 2023 include:

> Payments of contingent consideration from business combinations of $826 million (2022: $772 million).
> $2,417 million (2022: $1,480 million) for the purchase of intangible assets, including $780 million for the CinCor asset acquisition, $300 million to acquire Pfizer's preclinical rare disease gene therapy portfolio, regulatory milestones of $225 million and sales-related milestones of $100 million paid to Daiichi Sankyo in respect of *Enhertu*, and a $185 million upfront payment under the Eccogene licence agreement.

Investment cash inflows include:

> $291 million (2022: $447 million) from the sale of intangible assets and assets held for sale, mainly driven by $241 million from the disposal of US rights to *Pulmicort Flexhaler* to Cheplapharm.

Net cash distributions to shareholders were $4,448 million (2022: $4,335 million), including proceeds from the issue of share capital of $33 million (2022: $29 million) less dividends paid of $4,481 million (2022: $4,364 million).

Bonds

In March 2023, AstraZeneca issued $3.8 billion of bonds. USD bonds with a notional face value of $2,250 million and EUR bonds with notional face value of €1,500 million were issued.

No bonds were issued in 2022.

In 2023, AstraZeneca repaid $2,000 million of floating rate bank loans in March 2023, which were due to mature in July 2023, a $1,400 million 0.3% callable bond, which matured in May 2023, $400 million of floating rate notes and an $850 million 3.5% callable bond, both of which matured in August 2023, and $287 million of 7% guaranteed debentures, which matured in November 2023.

In 2022, AstraZeneca repaid a $250 million floating rate bond and a $1,000 million 2.375% fixed bond, both of which matured in June 2022.

Summary cash flows

	2023 $m	2022 $m	2021 $m
Net debt brought forward at 1 January	**(22,923)**	(24,322)	(12,110)
Profit/(loss) before tax	**6,899**	2,501	(265)
Sum of changes in interest, depreciation, amortisation, impairment and share of after tax losses on joint ventures and associates	**6,681**	6,736	7,851
Decrease in working capital and short-term provisions	**300**	3,757	2,021
Tax paid	**(2,366)**	(1,623)	(1,743)
Interest paid	**(1,081)**	(849)	(721)
Gains on disposal of intangible assets	**(251)**	(104)	(513)
Gains on disposal of joint ventures and associates	**–**	–	(776)
Fair value movements on contingent consideration arising from business combinations	**549**	82	14
Non-cash and other movements	**(386)**	(692)	95
Net cash available from operating activities	**10,345**	9,808	5,963
Purchase of intangibles (net of disposals)	**(2,126)**	(1,033)	(522)
Acquisition of subsidiaries, net of cash acquired	**(189)**	(48)	(9,263)
Net borrowings acquired from subsidiaries	**–**	–	(2,779)
Share-based payments attributable to business combinations	**(84)**	(215)	(211)
Payment of contingent consideration from business combinations	**(826)**	(772)	(643)
Other capital expenditure (net)	**(1,413)**	(838)	(569)
Investments	**(4,638)**	(2,906)	(13,987)
Dividends	**(4,481)**	(4,364)	(3,856)
Proceeds from the issue of share capital	**33**	29	29
Distributions	**(4,448)**	(4,335)	(3,827)
Repayment of obligations under leases	**(268)**	(244)	(240)
Payment of Acerta Pharma share purchase liability	**(867)**	(920)	–
Other movements	**289**	(4)	(121)
Net debt carried forward at 31 December	**(22,510)**	(22,923)	(24,322)

Bonds issued in 2023 and 2022[1]

	Repayment dates	Face value of bond $m	**Net book value of bond at 31 December 2023 $m**
Bonds issued in 2023:			
3.625% EUR bond	2027	791	**829**
4.875% USD bond	2028	1,100	**1,095**
4.9% USD bond	2030	650	**645**
3.75% EUR bond	2032	791	**827**
4.875% USD bond	2033	500	**497**
Total 2023		3,832	**3,893**

[1] No bonds were issued in 2022.

Net debt

Net debt at 31 December 2023 was $22,510 million (2022: $22,923 million). At 31 December 2023, gross debt (interest-bearing loans and borrowings) was $28,622 million (2022: $29,232 million). Of the gross debt outstanding, $5,400 million is due within one year (2022: $5,542 million).

At 31 December 2023, Cash and cash equivalents and Other investments totalled $5,962 million (2022: $6,405 million).

The Group had committed bank facilities of $6,875 million available to manage liquidity at 31 December 2023. $2.0 billion of the commitments mature in February 2025. The maturity of the $4,875 million facilities was extended in February 2024 from April 2026 to April 2029. All facilities contain no financial covenants and were undrawn at 31 December 2023. The Group regularly monitors the credit standing of the banks providing the facilities and currently does not anticipate any issue with drawing on the committed facilities should this be necessary. Advances under these facilities currently bear an interest rate per annum based on SOFR (Secured Overnight Financing Rate) plus a margin.

Financial position – 31 December 2023

All data in this section are on a Reported basis.

Acquisitions

In assessing whether an acquired set of assets and activities is a business or an asset, management will first elect whether to apply an optional concentration test to simplify the assessment. Where the concentration test is applied, the acquisition will be treated as the acquisition of an asset if substantially all of the fair value of the gross assets acquired (excluding cash and cash equivalents, deferred tax assets, and related goodwill) is concentrated in a single asset or group of similar identifiable assets. Where the concentration test is not applied, or is not met, a further assessment of whether the acquired set of assets and activities is a business will be performed.

Acquisitions treated as Business combinations

On 16 January 2023, AstraZeneca completed the acquisition of Neogene, a global clinical-stage biotechnology company pioneering the discovery, development and manufacturing of next-generation T-cell receptor therapies (TCR-Ts). The purchase price allocation exercise has completed, with the fair value of total consideration determined at $267 million. Intangible assets of $100 million and goodwill of $158 million were recognised in the acquisition balance sheet, as well as a cash outflow of $189 million net of cash acquired. Future contingent milestones-based consideration and non-contingent consideration is payable to a maximum of $120 million. Neogene's results have been consolidated into the Group's results from 16 January 2023.

On 16 November 2022, AstraZeneca completed the acquisition of 100% of the issued shares of LogicBio Therapeutics, Inc. (LogicBio), a clinical-stage genetic medicine company pioneering genome editing and gene delivery platforms to address rare and serious diseases from infancy through adulthood. The total consideration was $72 million. $68 million cash was paid on the completion date, with $4 million of outstanding options, which will be settled in cash, recorded in current Trade and other payables. LogicBio's results have been consolidated into the Group's results from 16 November 2022.

The acquisitions have been accounted for as business combinations using the acquisition method of accounting in accordance with IFRS 3 'Business Combinations'.

Acquisitions treated as asset acquisitions

On 24 February 2023, AstraZeneca completed the acquisition of 100% of the issued shares of CinCor, for consideration of $1,268 million, which included intangible assets acquired of $780 million, $424 million of cash and cash equivalents, and $75 million of marketable securities. Contingent consideration of up to $496 million could be paid on achievement of regulatory milestones, and those liabilities will be recorded when milestones are triggered, or performance conditions have been satisfied.

In September 2023, AstraZeneca completed the definitive purchase and licence agreement for a portfolio of preclinical rare disease gene therapy programmes and enabling technologies from Pfizer. The agreement has a total consideration of up to $1 billion consisting of a $300 million upfront payment and $700 million of contingent consideration, plus tiered royalties on sales.

Commitments and contingencies

We have commitments and contingencies which are accounted for in line with Group Accounting Policies and are described in Note 30 to the Financial Statements from page 204.

We also have taxation contingencies. These are described in this Financial Review, in the Taxation section in the Critical accounting policies and estimates section from page 152, and in Note 30 to the Financial Statements from page 204.

Net debt reconciliation

	2023 $m	2022 $m	2021 $m
Cash and cash equivalents	**5,840**	6,166	6,329
Other investments[1]	**122**	239	69
Cash and investments	**5,962**	6,405	6,398
Overdraft and short-term borrowings	**(515)**	(350)	(387)
Lease liabilities	**(1,128)**	(953)	(987)
Current instalments of loans and borrowings	**(4,614)**	(4,964)	(1,273)
Loans due after one year	**(22,365)**	(22,965)	(28,134)
Loans and borrowings	**(28,622)**	(29,232)	(30,781)
Net derivative financial instruments	**150**	(96)	61
Net debt[2]	**(22,510)**	(22,923)	(24,322)

[1] Other investments exclude non-current investments, which are included within the balance of $1,530 million (2022: $1,066 million) in the Consolidated Statement of Financial Position on page 149.

[2] The equivalent GAAP measure to Net debt is 'liabilities arising from financing activities', which excludes the amounts for cash and overdrafts, other investments and non-financing derivatives shown above, and includes the Acerta Pharma share purchase liability of $833 million (2022: $1,646 million) presented in current Other payables.

Payments due by period

	Less than 1 year $m	1-3 years $m	3-5 years $m	Over 5 years $m	Total 2023 $m	Total 2022 $m
Bank loans and other borrowings[1]	**6,011**	**5,901**	**6,052**	**17,995**	**35,959**	36,389
Lease liabilities	**271**	**443**	**214**	**200**	**1,128**	953
Contracted capital expenditure	**288**	**101**	**–**	**979**	**1,368**	502
Total	**6,570**	**6,445**	**6,266**	**19,174**	**38,455**	37,844

[1] Bank loans and other borrowings include interest charges payable in the period, as detailed in Note 28 to the Financial Statements from page 195.

For full details of acquisitions, see Note 27 to the Financial Statements from page 193.

Off balance sheet transactions and commitments

We have no off balance sheet arrangements and our derivative activities are non-speculative. The table on page 69 sets out our minimum contractual obligations at the year end.

Research and development collaboration payments

Details of future potential R&D collaboration payments are also included in Note 30 to the Financial Statements on page 204. As detailed in Note 30, payments to our partners may not become payable due to the inherent uncertainty in achieving the development and revenue milestones linked to the future payments. We may enter into further collaboration projects in the future that may include milestone payments and, as certain milestone payments fail to crystallise due to, for example, failure to obtain regulatory approval, unfavourable data from key studies, adverse reactions to the product candidate or indications of other safety concerns, they may be replaced by potential payments under new collaborations.

Investments, divestments and capital expenditure

We have completed more than 60 major or strategically important business development transactions over the past three years.

The following strategic investment was made in 2023:

Eccogene

> In November 2023, AstraZeneca and Eccogene entered into an exclusive licence agreement for AZD5004, an investigational oral once-daily GLP-1RA for the treatment of obesity, type-2 diabetes and other cardiometabolic conditions. Preliminary results from the Phase I trial have shown a differentiating clinical profile for AZD5004, with good tolerability and encouraging glucose and body weight reduction across the dose levels tested compared to placebo. Under the terms of the agreement, Eccogene received an initial upfront payment of $185 million and up to an additional $1.8 billion in future clinical, regulatory, and commercial milestones and tiered royalties. AstraZeneca is granted exclusive global rights for the development and commercialisation of AZD5004 for any indication in all territories except China, where Eccogene has the right to co-develop and co-commercialise alongside AstraZeneca.

In addition to the business development transactions detailed under Collaboration Revenue from page 65 of this Financial Review, the following significant collaborations remain in the development phase:

Daiichi Sankyo

> In July 2020, AstraZeneca entered into a new global development and commercialisation agreement with Daiichi Sankyo for Dato-DXd, its proprietary trophoblast cell-surface antigen 2 (TROP2)-directed ADC and potential new medicine for the treatment of multiple tumour types. AstraZeneca agreed to pay Daiichi Sankyo an upfront payment of $1 billion in staged payments: $350 million was due upon completion, with $325 million after 12 months and $325 million after 24 months from the effective date of the agreement. AstraZeneca also agreed to pay additional conditional amounts of up to $1 billion for the successful achievement of regulatory approvals and up to $4 billion for sales-related milestones. The transaction was accounted for as an intangible asset acquisition, recognised initially at the present value of non-contingent consideration, with any potential future milestone payments capitalised into the intangible asset as they are recognised. The companies will jointly develop and commercialise Dato-DXd worldwide, except in Japan where Daiichi Sankyo will retain exclusive rights. AstraZeneca and Daiichi Sankyo will share equally development and commercialisation expenses as well as profits relating to Dato-DXd worldwide, except for Japan where Daiichi Sankyo will be responsible for such costs and will pay AstraZeneca mid single-digit royalties. Daiichi Sankyo will record sales in the US, certain countries in Europe and certain other countries where Daiichi Sankyo has affiliates. Profits shared with AstraZeneca from those countries will be recorded as Alliance Revenue by AstraZeneca. AstraZeneca will record Product Sales in other countries worldwide, for which profits shared with Daiichi Sankyo will be recorded within Cost of sales. Daiichi Sankyo will manufacture and supply Dato-DXd.

Innate Pharma

> In April 2015, we entered into two oncology agreements with Innate Pharma: first, a licence which provides us with exclusive global rights to co-develop and commercialise IPH2201 in combination with *Imfinzi*; and, second, an option to license exclusive global rights to co-develop and commercialise IPH2201 in monotherapy and other combinations in certain treatment areas. We jointly fund Phase II studies with Innate Pharma and we lead the execution of these studies. In respect of these agreements, we made an initial payment to Innate Pharma of $250 million. The agreement also includes a Phase III initiation milestone of $100 million, as well as additional regulatory and sales-related milestones. We record all sales and pay Innate Pharma double-digit royalties on net sales. The arrangement includes the right for Innate Pharma to co-promote in Europe for an equal share of costs and income in the territory.
> In October 2018, we exercised our option over IPH2201 and simultaneously entered into a further multi-element transaction with Innate Pharma. Under the agreement, we paid $50 million to collaborate on, and acquire an option to license, IPH5201, a potentially first-in-class anti-CD39 mAb. Additionally, we paid $20 million to acquire options over four future programmes currently being developed by Innate Pharma, and paid €62.6 million to acquire a 9.8% stake in Innate Pharma. The $100 million option fee and $50 million premium paid over market price for the investment in Innate Pharma have been capitalised as intangible assets. The payment for future programmes will be expensed as R&D expenditure over four years.

We determine these business development transactions to be significant using a range of factors. We look at the specific circumstances of the individual arrangement and apply several quantitative and qualitative criteria. As we consider business development transactions to be an extension of our R&D strategy, the expected total value of development payments under the transaction and its proportion of our annual R&D spend, both of which are proxies for overall R&D effort and cost, are important elements of the determination of the significance. Other quantitative criteria we apply include, without limitation, expected levels of future sales, the possible value of milestone payments and the resources used for commercialisation activities (for example, the number of staff). Qualitative factors we consider include, without limitation, new market developments, new territories, new areas of research and strategic implications.

Capitalisation and shareholder return

Capitalisation

The total number of shares in issue at 31 December 2023 was 1,550 million (2022: 1,550 million).

Shareholders' equity increased by $2,106 million to $39,143 million at the year end. Non-controlling interests were $23 million (2022: $21 million).

Dividend and share repurchases

The Board has recommended a second interim dividend of $1.97 (156.0 pence, 20.65 SEK) to be paid on 25 March 2024. This brings the full-year dividend to $2.90 (227.8 pence, 30.29 SEK). Against Reported EPS, the Group had a dividend cover ratio of 1.32:1 in 2023 (2022: 0.74:1). Against Core EPS, the Group had a dividend cover ratio of 2.50:1 in 2023 (2022: 2.32:1). This dividend is consistent with the progressive dividend policy, by which, the Board intends to maintain or grow the dividend each year.

The Board regularly reviews its distribution policy and its overall financial strategy to continue to strike a balance between the interests of the business, our financial creditors and our shareholders. Having regard for business investment, funding the progressive dividend policy and meeting our debt service obligations, the Board currently believes it is appropriate to continue the suspension of the share repurchase programme which was announced in 2012.

The Board reviews the level of distributable reserves of the Parent Company annually and aims to maintain distributable reserves that provide adequate cover for dividend payments. At 31 December 2023, the overwhelming majority of the Profit and loss account reserve of $17,640 million (2022: all of the Profit and loss account reserve of $7,458 million) was available for distribution, subject to filing these Financial Statements with Companies House. When making a distribution to shareholders, the Directors determine profits available for distribution by reference to guidance on realised and distributable profits under the Companies Act 2006 issued by the Institute of Chartered Accountants in England and Wales and the Institute of Chartered Accountants of Scotland in April 2017.

The profits of the Parent Company have been received in the form of receivables due from subsidiaries. The availability of distributable reserves in the Parent Company is dependent on those receivables meeting the definition of qualifying consideration within the guidance, and in particular on the ability of subsidiaries to settle those receivables within a reasonable period of time. The Directors consider that, based on the nature of these receivables and the available cash resources of the Group and other accessible sources of funds, at 31 December 2023, the overwhelming majority (2022: all) of the Company's profit and loss reserves were available for distribution.

Future prospects

As outlined earlier in this Annual Report, our strategic priorities support delivery of our Growth Through Innovation strategy and our Purpose: to push the boundaries of science to deliver life-changing medicines.

In support of this, we made certain choices around our three strategic priorities:

> Science and Innovation
> Growth and Therapy Area Leadership
> People and Sustainability.

Full year 2024: additional commentary

Total Revenue is expected to increase by a low double-digit to low teens percentage. Core EPS is expected to increase by a low double-digit to low teens percentage.

Collaboration Revenue is expected to increase substantially, driven by success-based milestones and certain anticipated transactions. Other operating income is expected to decrease substantially (2023 included a $241m gain on the disposal of *Pulmicort Flexhaler* US rights, and a $712m one-time gain relating to updates to contractual arrangements with Sobi and Sanofi). The Core Tax rate is expected to be between 18-22%.

The Group is unable to provide guidance on a Reported basis because it cannot reliably forecast material elements of the Reported results, including any fair value adjustments arising on acquisition-related liabilities, intangible asset impairment charges and legal settlement provisions. Please refer to the Cautionary statement section regarding forward-looking statements on page 236.

Currency impact

If foreign exchange rates for February 2024 to December 2024 were to remain at the average rates seen in January 2024, it is anticipated that 2024 Total Revenue and Core EPS for the year would incur a low single-digit adverse impact versus the performance at CER.

This commentary represents management's current estimates and is subject to change. See the Cautionary statement regarding forward-looking statements on page 236.

Financial risk management

Financial risk management policies

Insurance

Our risk management processes are described in Risk Overview from page 54. These processes enable us to identify risks that can be partly or entirely mitigated through the use of insurance. We focus our insurance resources on the most critical areas, or where there is a legal requirement, and where we can get the best value for money through structured and traditional insurance. We purchase an external multi-line insurance programme to mitigate against significant financial loss arising from core business risks.

Treasury

The principal financial risks to which we are exposed are those arising from liquidity, interest rates, foreign currency and credit. We have a centralised treasury function to manage these risks in accordance with Board-approved policies. Note 28 to the Financial Statements from page 195 sets out the relevant policies and the way we manage these risks and our capital management objectives, as well as a sensitivity analysis of the Group's exposure to exchange rate and interest rate movements.

For further information regarding Dividends, see Note 25 on page 192.

For more information, see Our Strategy and Key Performance Indicators from page 12.

Critical accounting policies and estimates

The Consolidated Financial Statements have been prepared in accordance with UK-adopted IAS and with the requirements of the Companies Act 2006 as applicable to companies reporting under those standards. The Consolidated Financial Statements also comply fully with IFRS Accounting Standards as issued by the IASB and IAS as adopted by the EU. The accounting policies employed are set out in the Group Accounting Policies section from page 152. In applying these policies, we make estimates and assumptions that affect the Reported amounts of assets and liabilities and disclosure of contingent assets and liabilities. The actual outcome could differ from those estimates. Some of these policies require a high level of judgement because the areas are especially subjective or complex.

We believe that the most critical accounting policies and significant areas of judgement and estimation are in the following areas and align with the accounting policies containing our key accounting judgements and significant accounting estimates as disclosed in the Financial Statements from page 152:

- Revenue recognition – see Revenue Accounting Policy from page 152 and Note 1 on page 161
- Expensing of internal development expenses – see Research and Development Policy from page 154
- Impairment review of Intangible assets – see Note 10 on page 174
- Useful economic life of Intangible assets – see Research and Development from page 154
- Business combinations and Goodwill – see Business combinations and Goodwill Policy from page 156 and Note 27 from page 193
- Litigation liabilities – see Litigation and Environmental Liabilities within Note 30 on page 204
- Operating segments – see Note 6 on page 167
- Employee benefits – see Note 22 on page 190
- Taxation – see Tax in Note 30 from page 209.

Revenue recognition

Product Sales are recorded at the invoiced amount (excluding inter-company sales and value-added taxes), less movements in estimated accruals for rebates and chargebacks given to managed care and other customers, which are a particular feature in the US and are considered to be key estimates. It is the Group's policy to offer a credit note for all returns and to destroy all returned stock in all markets. Cash discounts for prompt payments are also discounted from sales. Sales are recognised when the control of the goods has been transferred to a third party, which is usually when title passes to the customer, either on shipment or on the receipt of goods by the customer, depending on local trading terms.

Rebates, chargebacks and returns in the US

When invoicing Product Sales in the US, we estimate the rebates and chargebacks that we expect to pay, which are considered to be estimates. These rebates typically arise from sales contracts with third-party managed care organisations, hospitals, long-term care facilities, group purchasing organisations and various federal or state programmes (Medicaid contracts, supplemental rebates, etc.). They can be classified as follows:

- Chargebacks, where we enter into arrangements under which certain parties, typically hospitals, long-term care facilities, group purchasing organisations, the Department of Veterans Affairs, Public Health Service Covered Entities, and the Department of Defense, are able to buy products from wholesalers at the lower prices we have contracted with them. The chargeback is the difference between the price we invoice to the wholesaler and the contracted price charged by the wholesaler to the other party. Chargebacks are credited directly to the wholesalers.
- Regulatory, including Medicaid and other federal and state programmes, where we pay rebates based on the specific terms of agreements with the US Department of Health and Human Services and with individual states, which include product usage and information on best prices and average market prices benchmarks.
- Contractual, under which entities such as third-party managed care organisations are entitled to rebates depending on specified performance provisions, which vary from contract to contract.

The effects of these deductions on our US pharmaceuticals revenue and the movements on US pharmaceuticals revenue provisions are set out on this page.

Accrual assumptions are built up on a product-by-product and customer-by-customer basis, taking into account specific contract provisions coupled with expected performance, and are then aggregated into a weighted average rebate accrual rate for each of our products. Accrual rates are reviewed and adjusted on an as needed basis. There may be further adjustments when actual rebates are invoiced based on utilisation information submitted to us (in the case of contractual rebates) and claims/invoices are received (in the case of regulatory rebates and chargebacks). We believe that we have made reasonable estimates for future rebates using a similar methodology to that of previous years. Inevitably, however, these estimates involve assumptions in respect of aggregate future sales levels, segment mix and customers' contractual performance.

Overall adjustments between gross and net US Product Sales amounted to $18,607 million in 2023 (2022: $14,846 million) with the increase driven by our US Product Sales.

Cash discounts are offered to customers to encourage prompt payment. Accruals are calculated based on historical experience and are adjusted to reflect actual experience. Our revenue recognition policy is described within Group Accounting Policies from page 152.

Industry practice in the US allows wholesalers and pharmacies to return unused stocks within six months of, and up to 12 months after, shelf-life expiry. The customer is credited for the returned product by the issuance of a credit note. Returned products are not exchanged for products from inventory and once a return claim has been determined to be valid and a credit note has been issued to the customer, the returned products are destroyed. At the point of sale in the US, we estimate the quantity and value of products which may ultimately be returned. Our returns accruals in the US are based on actual experience. Our estimate is based on the historical sales and returns information for established products together with market-related information, such as estimated shelf life, product recall, and estimated stock levels at wholesalers, which we receive via third-party information services. For newly launched products, we use rates based on our experience with similar products or a pre-determined percentage.

Sarbanes-Oxley Act section 404

As a consequence of our Nasdaq listing, we are required to comply with those provisions of the Sarbanes-Oxley Act applicable to foreign issuers. Section 404 of the Sarbanes-Oxley Act requires companies annually to assess and make public statements about the quality and effectiveness of their internal control over financial reporting. As regards Sarbanes-Oxley Act section 404, our approach is based on the Committee of Sponsoring Organizations (COSO) 2013 framework.

Our approach to the assessment has been to select key transaction and financial reporting processes in our largest operating units and a number of specialist areas (e.g. financial consolidation and reporting, treasury operations and taxation), so that, in aggregate, we have covered a significant proportion of the key lines in our Financial Statements. Each of these operating units and specialist areas has ensured that its relevant processes and controls are documented to appropriate standards, taking into account, in particular, the guidance provided by the US Securities and Exchange Commission (SEC).

We have also reviewed the structure and operation of our 'entity level' control environment. This refers to the overarching control environment, including structure of reviews, checks and balances that are essential to the management of a well controlled business.

Gross to Net Product Sales
US pharmaceuticals

	2023 $m	2022 $m	2021 $m
Gross Product Sales	**36,568**	32,100	23,970
Chargebacks	**(3,075)**	(2,401)	(2,095)
Regulatory – Medicaid and state programmes	**(2,417)**	(1,879)	(1,488)
Contractual – Managed care and Medicare	**(11,035)**	(8,821)	(7,121)
Cash and other discounts	**(428)**	(359)	(312)
Customer returns	**(222)**	(132)	(14)
US branded pharmaceutical fee	**(124)**	(150)	(57)
Other	**(1,306)**	(1,104)	(883)
Net Product Sales	**17,961**	17,254	12,000

Movements in accruals
US pharmaceuticals

	Brought forward at 1 January 2023 $m	Provision for current year $m	Adjustment in respect of prior years $m	Returns and payments $m	Carried forward at 31 December 2023 $m
Chargebacks	**233**	**2,743**	**(22)**	**(2,709)**	**245**
Regulatory – Medicaid and state programmes	**771**	**2,468**	**(59)**	**(2,194)**	**986**
Contractual – Managed care and Medicare	**2,426**	**11,166**	**(92)**	**(10,373)**	**3,127**
Cash and other discounts	**27**	**428**	**–**	**(424)**	**31**
Customer returns	**205**	**204**	**–**	**(136)**	**273**
US branded pharmaceutical fee	**137**	**133**	**(5)**	**(93)**	**172**
Other	**162**	**1,303**	**–**	**(1,183)**	**282**
Total	**3,961**	**18,445**	**(178)**	**(17,112)**	**5,116**

	Brought forward at 1 January 2022 $m	Provision for current year $m	Adjustment in respect of prior years $m	Returns and payments $m	Carried forward at 31 December 2022 $m
Chargebacks	181	2,103	(13)	(2,038)	233
Regulatory – Medicaid and state programmes	510	1,953	(79)	(1,613)	771
Contractual – Managed care and Medicare	2,031	8,971	(141)	(8,435)	2,426
Cash and other discounts	21	359	–	(353)	27
Customer returns	196	112	–	(103)	205
US branded pharmaceutical fee	79	138	16	(96)	137
Other	154	1,036	–	(1,028)	162
Total	3,172	14,672	(217)	(13,666)	3,961

	Brought forward at 1 January 2021 $m	Additions through business combinations $m	Provision for current year $m	Adjustment in respect of prior years $m	Returns and payments $m	Carried forward at 31 December 2021 $m
Chargebacks	178	2	2,117	(21)	(2,095)	181
Regulatory – Medicaid and state programmes	495	46	1,548	(50)	(1,529)	510
Contractual – Managed care and Medicare	1,937	29	7,204	(83)	(7,056)	2,031
Cash and other discounts	20	–	313	–	(312)	21
Customer returns	253	18	13	–	(88)	196
US branded pharmaceutical fee	115	–	77	(28)	(85)	79
Other	128	4	882	–	(860)	154
Total	3,126	99	12,154	(182)	(12,025)	3,172

Financial Review
continued

Section 172(1) statement

The Board is required to promote the success of the Group for the shareholders and wider stakeholders who interact with and are impacted by our business.

Throughout the year the Directors have had regard to the factors set out in section 172(1)(a)-(f), as well as other factors relevant to the decision being made. The Board acknowledges that every decision made will not necessarily result in a positive outcome for all stakeholders. By considering our Purpose and Values, together with our strategic priorities, the Board aims to ensure that the decisions made are consistent and intended to promote the Company's long-term success.

The Group engaged with key stakeholders throughout the year to understand the issues and factors that are significant for these stakeholders, and a number of actions were taken as a result of this engagement. The interaction, and impact of these interactions, are set out in the Connecting with our stakeholders section on pages 84 to 86 and throughout the Strategic Report.

We are committed to being a great place to work for the global workforce. Details on engagement with employees can be found on pages 43 to 45 of the Business Review, from page 84 of the Corporate Governance Report, page 97 in the Audit Committee Report and page 121 to 122 of the Remuneration Committee Report.

We are committed to employing high ethical standards when carrying out all aspects of our business globally. Our Code of Ethics (the Code) is based on our Values, expected behaviours and key policy principles. More information on the Code can be found in the Business Review on page 49.

AstraZeneca recognises patients as people first and puts them at the heart of what we do. Information on the importance of patients to the business can be found on page 84, with further information throughout the Business Review.

The consideration and impact of the Group's operations on the environment and how the Group has considered other factors, such as communities and suppliers, can be found throughout the People and Sustainability section from page 43.

Details of how the Board operates and matters considered by the Board are set out in the Corporate Governance Report from page 75. Details on the Board and SET composition and gender diversity can be found on pages 78, 91, and 229. Examples of how Directors discharged their duties and considered stakeholders when making Principal Decisions during 2023 are set out from page 84. Principal Decisions are decisions and discussions which are material or strategic to the Group, but also those that are significant to any of our stakeholder groups.

Strategic Report

The following sections make up the Strategic Report, which has been prepared in accordance with the requirements of the Companies Act 2006:

- Chair's Statement
- Chief Executive Officer's Review
- AstraZeneca at a Glance
- What science can do: artificial intelligence
- Healthcare in a Changing World
- Our Purpose, Values and Business Model
- Our Strategy and Key Performance Indicators
- Therapy Area Review
- Business Review
- EU Taxonomy Disclosure
- Task Force on Climate-related Financial Disclosures Summary Statement
- Risk Overview
- Financial Review

and has been approved and signed on behalf of the Board.

A C N Kemp
Company Secretary
8 February 2024

Corporate Governance

Contents

Chair's Introduction **76**
Corporate Governance Overview **77**
Board of Directors **78**
Senior Executive Team (SET) **80**
Corporate Governance Report **81**
Nomination and Governance Committee Report **90**
Science Committee Report **92**
Sustainability Committee Report **93**
Audit Committee Report **94**
Directors' Remuneration Report **102**
Remuneration Policy **127**

Chair's Introduction

"Good governance underpins any successful enterprise..."

"This Report reviews AstraZeneca's governance and the work of the Board's Committees."

It's a pleasure to be introducing AstraZeneca's Corporate Governance Report for the first time as Chair.

Our Strategic Report provides an update on how AstraZeneca is delivering its Growth Through Innovation strategy, including how we attract, retain and develop talented people as our employees. This Report reviews AstraZeneca's governance and the work of the Board's Committees.

I would like to begin by thanking my fellow Directors for the support they have given me in my first year as Chair and welcoming Anna Manz who became a Non-Executive Director and member of the Audit Committee in September. She brings extensive cross-sector business skills and knowledge to the Board, having held international roles in North America and Asia Pacific and served as an executive and non-executive in large, listed companies.

I also want to recognise the role that all the Directors play in carrying out their responsibilities as members of our Board Committees. I am particularly grateful to the chairs of the Committees for the diligent and committed way in which they carry out their duties, especially Philip Broadley who, in addition to his important role as Chair of the Audit Committee, performs the role of our senior independent Non-Executive Director. Finally, I would like to thank Euan Ashley who assumed the role as Chair of the Science Committee during the year.

I would urge readers to read the reports from the individual Committee Chairs that give an indication of the depth and breadth of their work on behalf of shareholders. This Governance Report also reports on how we consider the interests of our stakeholders and engage with them in determining our strategy.

The Audit Committee has a key role in monitoring the integrity of our financial reporting and management of risk. Cyber risk and cyber security have been, and continue to be, a particular focus of their activity in recent years. During 2023, the Audit Committee as well as the Sustainability Committee, had an important role considering the potential and enacted regulations by the US, EU and UK on sustainability reporting, as well as the ongoing assessments of double materiality topics for AstraZeneca under EU regulations, to ensure that we are prepared for new sustainability reporting regulations which you will see reflected in AstraZeneca's 2024 Annual Report. The Sustainability Committee also reviewed progress against our Ambition Zero Carbon targets and programmes.

Euan and the Science Committee had a particularly busy year in reviewing our R&D strategy and science capabilities as well as studying the scientific case for the numerous acquisitions and licensing opportunities that were undertaken during 2023.

A particular responsibility of the Remuneration Committee in 2023 was to review and update our Remuneration Policy, which can be found from page 127 and will be proposed for approval by our shareholders at the AGM in April. In doing so, we are introducing some changes the Board believes are in the best interests of the Group and its shareholders, and which will incentivise management to deliver our ambitious strategy.

Good governance underpins any successful enterprise and I look forward to continuing my role in ensuring that AstraZeneca's future growth and prospects are accompanied and enabled by good governance overseen by a skilled and diverse Board of Directors.

Michel Demaré
Chair

Corporate Governance Overview

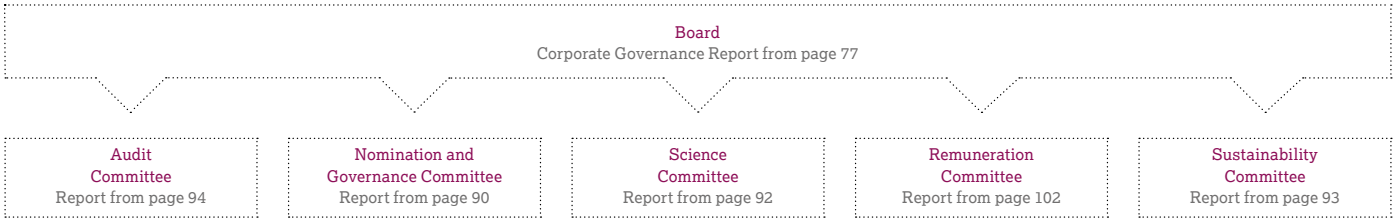
The Directors are collectively responsible for the success of the Group. The Board maintains and periodically reviews a list of matters that can only be approved by the Board. Matters that have not been expressly reserved to the Board in this way are delegated to the CEO or one of the Board's five Committees. The diagram below illustrates this governance structure.

The Board's responsibilities include setting our strategy and policies, overseeing risk and corporate governance, and monitoring progress towards meeting our objectives and annual plans. It is accountable to our shareholders for the proper conduct of the business and our long-term success, and seeks to represent the interests of all stakeholders.

The CEO, CFO and SET take the lead in developing our strategy; proposals are reviewed and constructively challenged by the Board, before the strategy is approved.

Governance structure

The Board has delegated some of its powers to the CEO and operates with the assistance of five Committees:



Attendance in 2023

Board Committee membership and meeting attendance in 2023

● Board or Committee Chair

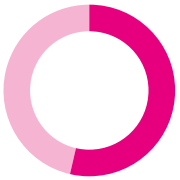
Director	Appointment date[1]	Board[2,8]	Audit Committee	Remuneration Committee	Nomination and Governance Committee	Science Committee	Sustainability Committee
Non-Executive Chair and Executive Directors							
Michel Demaré[3]	01/09/2019	● 8/8	4/4	6/6	● 6/6		
Leif Johansson[4]	26/04/2012	2/2		1/1	4/4		
Pascal Soriot	01/10/2012	8/8					
Aradhana Sarin	01/08/2021	8/8					
Non-Executive Directors							
Euan Ashley[5,8]	01/10/2020	7/8			5/6	● 9/9	
Philip Broadley	27/04/2017	8/8	● 7/7	6/6	6/6		
Deborah DiSanzo[8]	01/12/2017	7/8	7/7				
Diana Layfield[8]	01/11/2020	7/8				9/9	
Sheri McCoy[8]	01/10/2017	7/8	6/7	● 6/6	6/6		2/2
Tony Mok[8]	01/01/2019	7/8				9/9	
Nazneen Rahman[6]	01/06/2017	8/8		3/4	6/6	9/9	● 2/2
Andreas Rummelt	01/08/2021	8/8					2/2
Marcus Wallenberg[8]	05/04/1999	7/8				5/9	2/2
Anna Manz[7]	01/09/2023	4/4	2/2				

1 Date of first appointment or election to the Board.
2 Four Board meetings in 2023 were held by videoconference and four were held in person at the Company's sites in London, UK; Tokyo, Japan; and Gaithersburg, MD, US.
3 Michel Demaré succeeded Leif Johansson as Non-Executive Chair of the Board and Chair of the Nomination and Governance Committee on 27 April 2023.
4 Leif Johansson retired as Non-Executive Chair of the Board and as a Director on 27 April 2023.
5 Euan Ashley succeeded Nazneen Rahman as Chair of the Science Committee and became a member of the Nomination and Governance Committee on 1 June 2023.
6 Nazneen Rahman became a member of the Remuneration Committee on 1 May 2023.
7 Anna Manz joined the Board and the Audit Committee on 1 September 2023.
8 One ad hoc videoconference Board meeting in 2023 was called at short notice. Due to this and the timing of the meeting, several Board members' prior commitments or their time zone prevented them from attending. They received and reviewed the papers for the meeting and their comments were relayed to the Chair ahead of the meeting.

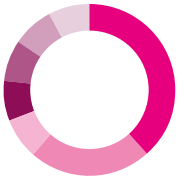
Board of Directors
as at 31 December 2023

Board composition
as at 31 December 2023

Gender split of Directors



Directors' nationalities



Length of tenure of Non-Executive Directors

0-3 years

2

Andreas Rummelt
Anna Manz

3-6 years

4

Euan Ashley
Michel Demaré
Tony Mok
Diana Layfield

6 years plus

5

Marcus Wallenberg
Philip Broadley
Deborah DiSanzo
Sheri McCoy
Nazneen Rahman

Committee membership key

- Committee Chair
- NG Nomination and Governance
- A Audit
- Sc Science
- R Remuneration
- Su Sustainability

Michel Demaré NG R

Non-Executive Chair of the Board

Skills and experience: Michel was previously Vice-Chairman of UBS Group AG (2010-2019), Chairman of Syngenta and Syngenta Foundation for Sustainable Agriculture (2013-2017) and Chairman of SwissHoldings (2013-2015). Between 2005 and 2013, Michel was CFO of ABB Ltd and interim CEO during 2008. He joined ABB from Baxter International Inc., where he was CFO Europe from 2002 to 2005. Prior to that, he spent 18 years at The Dow Chemical Company, serving as CFO of Dow's Global Polyolefins and Elastomers division between 1997 and 2002.

Other appointments: Michel is a Non-Executive Director of Vodafone Group plc and Louis Dreyfus Int'l Holding BV and Chairman of IMD Business School.

Pascal Soriot

Executive Director and CEO

Skills and experience: Pascal brings a passion for science and medicine, significant experience in established and emerging markets, strength of strategic thinking and execution, a successful track record of managing change and executing strategy, and the ability to lead a diverse organisation. He served as COO of Roche's pharmaceuticals division and, prior to that, as CEO of Genentech. Pascal has worked in senior management roles in several major companies around the world. He is a Doctor of Veterinary Medicine and holds an MBA from HEC Paris. In 2022, Pascal received a knighthood for services to life sciences and leadership in the global response to the COVID-19 pandemic.

Other appointments: Pascal is on the Board of Sustainable Markets Initiative Limited.

Aradhana Sarin

Executive Director and CFO

Skills and experience: Before joining AstraZeneca, Aradhana was CFO for Alexion, responsible for driving strategic growth, financial performance and business development. She brings operational experience in biopharma, plus more than 20 years of professional experience at global financial institutions and extensive knowledge of global healthcare systems. This includes tenures at Citi Global Banking, UBS, and JP Morgan. Aradhana trained as a medical doctor in India and spent two years practising in both India and Africa. She completed her medical training at the University of Delhi and received her MBA from Stanford Business School.

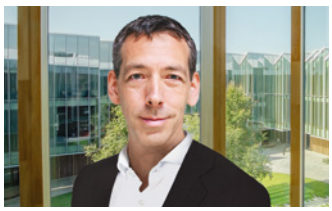
Other appointments: Aradhana is on the Board of Governors of the American Red Cross and an independent director of Anheuser-Busch InBev.

Philip Broadley A NG R

Senior independent Non-Executive Director

Skills and experience: Philip was previously Group Finance Director of Prudential and Old Mutual. He has served as chairman of the 100 Group of Finance Directors and as a member of the Takeover Panel. He is a Fellow of the Institute of Chartered Accountants in England and Wales. Philip graduated in Philosophy, Politics and Economics from the University of Oxford, where he is a St Edmund Fellow, and holds an MSc in Behavioural Science from LSE.

Other appointments: Philip serves as a Non-Executive Director of Legal & General and Non-Executive Director of Lancashire Holdings where he will assume the role of Chair following its 2024 AGM. He is Treasurer of the London Library and Chairman of the Board of Governors of Eastbourne College.



Euan Ashley NG Sc

Non-Executive Director

Skills and experience: Euan studied physiology and medicine at Glasgow University, trained as a junior doctor at Oxford University Hospitals NHS Trust, and gained a DPhil in cardiovascular cellular biology and molecular genetics at the University of Oxford. In 2002, Euan moved to Stanford University, where his research focuses on genetic mechanisms of cardiovascular health and disease. His laboratory leverages AI and digital health tools, alongside biotechnology and technology partners, to advance translational and clinical research. Euan's awards include recognition from the White House for contributions to personalised medicine and the American Heart Association's Medal of Honor for precision medicine.

Other appointments: Euan is Associate Dean and Professor of Biomedical Data Science and Professor of Cardiovascular Medicine and Genetics at Stanford University.

Deborah DiSanzo A

Non-Executive Director

Skills and experience: Deborah has more than 30 years' experience in healthcare and technology. She is currently President of Best Buy Health, which provides digital health solutions in active aging, virtual care and consumer health. Deborah teaches Artificial Intelligence in Health at the Harvard TH Chan School of Public Health. Until December 2018, she served as General Manager of IBM Watson Health. Prior to IBM, Deborah held multiple senior executive positions at Philips Healthcare where she also was Chief Executive Officer. Deborah has been honoured by multiple organisations as a top health influencer. She holds an MBA from Babson College and is a Harvard University Advanced Leadership Initiative 2019 Fellow.

Other appointments: Deborah is President of Best Buy Health.

Diana Layfield (Sc)

Non-Executive Director

Skills and experience: Diana has broad global business experience including in the pharmaceutical and biotech sector. She has held senior leadership roles at Standard Chartered Bank, as the CEO of a start-up technology company, and in Healthcare and Life Sciences at McKinsey & Co. Until December 2020, Diana was a Non-Executive Director of Aggreko plc. She has a BA from Oxford University and an MA in Public Administration and International Economics from Harvard University.

Other appointments: Diana is General Manager, International Search at Google and was also President, EMEA Partnerships and Vice-President, 'Next Billion Users'. She is the Chair of British International Investment plc and a Council Member of the London School of Hygiene & Tropical Medicine.

Anna Manz (A)

Non-Executive Director

Skills and experience: Anna joined London Stock Exchange in 2020 as CFO, ahead of its acquisition of Refinitiv. Prior to this, she was an Executive Director and the CFO of Johnson Matthey Plc and, before that, spent 17 years at Diageo plc in a number of senior finance roles. She brings extensive expertise in accounting, corporate finance and M&A, as well as experience of business diversification, transformation and strategy. Anna was previously a Non-Executive Director of ITV plc and served on its Audit Committee and Remuneration Committee during most of that period.

Other appointments: Anna will step down from her role at London Stock Exchange in 2024 to join Nestlé S.A. as CFO and a member of Nestlé's Executive Board.

Sheri McCoy (R) (A) (NG) (Su)

Non-Executive Director

Skills and experience: Until February 2018, Sheri was CEO and a Director of Avon Products, Inc. and, prior to that, had a 30-year career at Johnson & Johnson (J&J), latterly serving as Vice-Chairman of the Executive Committee, responsible for the Pharmaceuticals and Consumer business segments. Sheri joined J&J as an R&D scientist and subsequently managed businesses in every major product sector. She holds a BSc in Textile Chemistry from the University of Massachusetts Dartmouth, an MSc in Chemical Engineering from Princeton University and an MBA from Rutgers University.

Other appointments: Sheri serves on the boards of Stryker, Kimberly-Clark, and Sail Biomedicines. She is also an industrial adviser for EQT, and in connection serves on the boards of Galderma, Parexel and is Chair of Dechra.

Tony Mok (Sc)

Non-Executive Director

Skills and experience: Tony is the Li Shu Fan Medical Foundation endowed Professor and Chairman of the Department of Clinical Oncology at the Chinese University of Hong Kong. His work includes multiple aspects of lung cancer research, including biomarker and molecular targeted therapy in lung cancer. Tony is the Past President of the International Association for the Study of Lung Cancer and a past Board member of the American Society of Clinical Oncology. He has achieved numerous awards including the European Society for Medical Oncology (ESMO) Lifetime Achievement Award, Giant of Cancer Care, and the Bronze Bauhinia Star.

Other appointments: Tony is Non-Executive Director of HUTCHMED (China) Limited, member of the Scientific Advisory Board of Prenetics Global Limited and serves on the board of Insighta.

Nazneen Rahman (Sc) (Su) (NG) (R)

Non-Executive Director

Skills and experience: Nazneen has significant experience in rare disease and cancer genomics and sustainable healthcare. She qualified in medicine from Oxford University, is an accredited specialist in medical genetics and has a PhD in molecular genetics. Nazneen was Professor of Genetics at the Institute of Cancer Research, Head of Cancer Genetics at the Royal Marsden NHS Foundation Trust, and founder and Director of the TGLclinical Genetic Testing Laboratory until 2018. In 2020, Nazneen founded YewMaker to build science-based sustainable healthcare solutions. Nazneen has a strong commitment to open science and has garnered numerous awards, including a CBE in recognition of her contribution to medical sciences.

Other appointments: Nazneen is CEO of YewMaker and Director of the Sustainable Medicines Partnership.

Andreas Rummelt (Su)

Non-Executive Director

Skills and experience: Andreas joined the Board following the acquisition of Alexion, where he had been a Director since 2010. Previously he was at Novartis Pharma AG. where he served on the Executive Committee from 2006 to 2010. He had been Group Head of Technical Operations and Quality from 2009 until 2010. He was Global CEO of Sandoz, the Generics Division of Novartis from 2004 to 2008, having originally joined in 1985. Andreas earned his PhD in pharmaceutical sciences from the University of Erlangen-Nuremberg and received his executive training in general management and leadership from IMD in Lausanne, INSEAD in Fontainebleau and Harvard Business School.

Other appointments: Andreas is Chairman and Partner of InterPharmaLink AG since 2011 and a director of various privately-held biotech and pharmaceutical companies.

Marcus Wallenberg (Sc) (Su)

Non-Executive Director

Skills and experience: Marcus has international business experience across various industry sectors, including the pharmaceutical industry from his directorship with Astra prior to 1999.

Other appointments: Marcus is Chair of Skandinaviska Enskilda Banken AB, Saab AB and FAM AB. He is Vice-Chair of Investor AB and Vice-Chair of EQT AB. Marcus is also Chair of the Royal Swedish Academy of Engineering Sciences and a Board member of the Knut and Alice Wallenberg Foundation.

Leif Johansson (NG) (R)

Formerly Non-Executive Chair of the Board (retired in April 2023)

Senior Executive Team (SET)
as at 31 December 2023

The Senior Executive Team, or SET, is the body through which the CEO exercises the authority delegated to him by the Board. The CEO leads the SET and has executive responsibility for the management, development and performance of the business. The CEO, CFO and SET also take the lead in developing the strategy for review, constructive challenge and approval by the Board as part of the annual strategy review process.

SET members who sit on the Board:
- Pascal Soriot
  CEO
- Aradhana Sarin
  CFO

Further information about SET members is available on our website, www.astrazeneca.com.

See Board of Directors biographies from page 78.

Sharon Barr
Executive Vice-President, BioPharmaceuticals R&D

Sharon joined in 2021 and is responsible for discovery through to late-stage development across CVRM and Respiratory & Immunology. Previously, Sharon was SVP, Head of Research and Product Development of Alexion. Sharon undertook a PhD in molecular biology from NYU and a postdoctoral fellowship at Stanford University.

Pam Cheng
Executive Vice-President, Global Operations, IT and Chief Sustainability Officer

Pam joined in 2015, after 18 years with Merck/MSD in Global Manufacturing. Pam has also worked for Universal Oil Products, Union Carbide Corporation and GAF Chemicals. She holds Bachelor's and Master's degrees in chemical engineering from Stevens Institute of Technology and an MBA from Pace University.

Ruud Dobber
Executive Vice-President, BioPharmaceuticals Business Unit

Ruud is responsible for the CVRM, Respiratory & Immunology, neuroscience and infection business units. Ruud joined AstraZeneca in 1997 and held various executive roles externally before this. Ruud was previously a research scientist in immunology and ageing, holding a doctorate in immunology from the University of Leiden.

Marc Dunoyer
CEO, Alexion and Chief Strategy Officer, AstraZeneca

Marc served as AstraZeneca's Chief Financial Officer until 2021. Previously, he served as Global Head of Rare Diseases at GSK and (concurrently) Chairman, GSK Japan. He holds an MBA from HEC Paris and a Bachelor of Law degree from Paris University.

David Fredrickson
Executive Vice-President, Oncology Business Unit

Dave is responsible for driving growth and maximising the commercial performance of the AstraZeneca global Oncology portfolio. Before joining AstraZeneca, Dave worked at Roche/Genentech, where he served in several functions and leadership positions. Dave is a graduate of Georgetown University in Washington DC.

Susan Galbraith
Executive Vice-President, Oncology R&D

Susan has global accountability for Oncology R&D from discovery through to late-stage development.

Susan joined AstraZeneca in 2010, having previously worked at BMS. She graduated in medicine from Cambridge University, has a PhD from the University of London and qualified as a Clinical Oncologist in 2001.

Menelas (Mene) Pangalos
Executive Vice-President (formerly Executive Vice-President, BioPharmaceuticals R&D and SET member 2013-2023)

Mene will retire from AstraZeneca in early 2024.

Katarina Ageborg
Formerly Executive Vice-President, Sustainability and Chief Compliance Officer; President AstraZeneca AB Sweden

Katarina retired in January 2023.

Jeff Pott
Chief Human Resources Officer, Chief Compliance Officer and General Counsel

Jeff is responsible for all aspects of AstraZeneca's People strategy and leads our HR, Compliance, and Legal and IP functions. Jeff joined in 1995, before which he specialised in pharmaceutical product liability and antitrust litigation. He holds a Bachelor's degree from Wheaton College and a Juris Doctor Degree from Villanova University.

Iskra Reic
Executive Vice-President, Vaccines & Immune Therapies

Iskra is Head of the Vaccines & Immune Therapies business unit. Established in 2021, during AstraZeneca's industry-leading response to the COVID-19 pandemic, Vaccines & Immune Therapies is focused on developing transformative vaccines and immune therapies to prevent infectious diseases globally. Iskra trained as a doctor of Dental Surgery at the Medical University of Zagreb and has an MBA from the IEDC-Bled School of Management.

Leon Wang
Executive Vice-President, International and China President

Leon is responsible for driving sustainable growth across the International region, including China. China is now AstraZeneca's third-largest market, and AstraZeneca is its largest pharmaceutical company. Leon holds an EMBA from China Europe International Business School, and a BA from Shanghai International Studies University.

Corporate Governance Report
Compliance with the UK Corporate Governance Code

Statement of compliance

Our statement of compliance below describes how we applied the principles in the 2018 UK Corporate Governance Code (the Code) for the year ended 31 December 2023. A copy of the Code can be found on the Financial Reporting Council's (FRC) website, www.frc.org.uk. Throughout the accounting period we have complied with all the provisions of the Code other than provision 21, which relates to the Board's annual performance evaluation. Our approach to the Board's performance evaluation for 2023 is described on page 89.

Additional information for Swedish shareholders

The Company is incorporated under the laws of England and Wales and its shares are listed on the London Stock Exchange, Nasdaq Stockholm and the Nasdaq Global Select Market in the US. In accordance with the Company's listing on the London Stock Exchange, it applies the principles set out in the Code. As a result of its listing on Nasdaq Stockholm and in accordance with Swedish regulations, the Company is required to disclose the material ways in which its corporate governance practices differ from those applied by Swedish companies following the Swedish Corporate Governance Code (the Swedish Code). The Company has made available on its website www.astrazeneca.com/investor-relations/corporate-governance.html a summary of the material ways in which the corporate governance practices applied by the Company differ from the principles of the Swedish Code. In addition, as required by Swedish regulations, the Company has also made available on its website a general description of the main differences in minority shareholders' rights between the Company's place of domicile (the UK) and Sweden, where the Company's shares are also admitted to trading.

1. Board leadership and Company purpose

A. Board's role

The Board's role is to promote the long-term sustainable success of the Company. The Directors' diverse range of skills, experience and industry knowledge, and ability to exercise independent and objective judgement, help the Board to operate effectively in its oversight of delivery of the Group's strategy, generation of shareholder value and contributions to wider society.

The Board's effective operation is underpinned by a sound governance structure, described on page 77. Through a programme of regular Board and Board Committee meetings, Directors receive information on AstraZeneca's financial performance, the R&D pipeline and critical business issues. The Board is accountable to our shareholders for the proper conduct of the business and our long-term success and seeks to represent the interests of all stakeholders.

B. Purpose, culture and strategy

The Board believes that our Purpose, to push the boundaries of science to deliver life-changing medicines, positions AstraZeneca for long-term sustainable success.

Our Code of Ethics and our Values underpin the behaviours that support our culture.

The Board is responsible for setting our strategy and policies, overseeing risk and corporate governance, and monitoring progress towards meeting our objectives and annual plans. The Board conducts an annual review of the Group's overall strategy.

C. Resources and controls

The Board ensures that the necessary resources are in place to help the Company meet its objectives and measure its performance against them.

The Group Internal Audit and Compliance functions provide quarterly reports to the Audit Committee on their activities and annual reviews of key themes, processes and systems (including arrangements for whistleblowing). The Board has full oversight of these matters by way of the Audit Committee Chair's reports to the Board after each Committee meeting. Board members are also able to access the information provided to the Audit Committee.

The Board has a formal system in place for Directors to declare a conflict, or potential conflict, of interest.

D. Stakeholder engagement

The Board aims to ensure a good dialogue is maintained with shareholders, so that their views are understood and considered. The Board also engages with and considers wider stakeholder groups, including the workforce, in its decision making.

E. Workforce policies

Based on our Values, expected behaviours and key policy principles, the Code of Ethics empowers employees to make decisions in the best interests of the Group, the Company, society and the patients we serve. It is applicable to the Group worldwide, including the Board.

2. Division of responsibilities

F. Chair of the Board

Michel Demaré, our Non-Executive Chair, is responsible for the Board's overall effectiveness in directing the Company. Mr Demaré was first appointed to the Board in 2019 and was considered to be independent on his appointment as Chair in April 2023.

G. Board composition, independence and division of responsibilities

The composition of the Board is set out on pages 78 and 79. The majority of the Board consists of independent Non-Executive Directors. Directors' independence is considered annually by the Board, as described on page 83.

The Directors are collectively responsible for the success of the Group. The roles of the Board, Board Committees, Chair, senior independent Non-Executive Director and CEO are documented, as are the Board's reserved powers and delegated authorities. The Board's responsibilities and the governance structure by which it delegates authority are outlined in the Corporate Governance Overview on page 77.

The Board maintains a list of matters that are reserved to, and can only be approved by, the Board. These include: the appointment, termination and remuneration of any Director; approval of the annual budget; approval of any item of fixed capital expenditure or any proposal for the acquisition or disposal of an investment or business which exceeds $300 million; the raising of capital or loans by the Company (subject to certain exceptions); the giving of any guarantee in respect of any borrowing of the Company; and allotting shares of the Company. Matters that have not been expressly reserved to the Board are delegated to the Committees of the Board or the CEO.

H. Non-Executive Directors' role and time commitment

The Non-Executive Directors exercise objective judgement in respect of Board decisions, providing scrutiny and challenge and holding management to account. Non-Executive Directors offer strategic guidance and specialist advice based on their breadth of experience and knowledge. The Non-Executive Directors regularly meet without the Executive Directors or other management present.

For more information on:

Our Purpose, our Values and our Business Model, see page 10.

Our Code of Ethics, see page 49.

Our resources and controls, see the Audit Committee Report from page 94.

Conflicts of interest, see page 225.

Stakeholder engagement, see pages 84 to 86 and throughout the Strategic Report. Our section 172(1) statement is set out on page 74.

The Board's performance evaluation, see page 89.

The Company's senior independent Non-Executive Director serves as a sounding board for the Chair and as an intermediary for the other Directors when necessary. The senior independent Non-Executive Director is also available to shareholders if they have concerns that contact through the normal channels of Chair or Executive Directors has failed to resolve, or for which such contact is inappropriate. Philip Broadley was appointed senior independent Non-Executive Director on 1 March 2021.

As well as their work in relation to formal Board and Board Committee meetings, Non-Executive Directors commit time throughout the year to meetings and telephone calls with various levels of executive management and other key stakeholders, visits to AstraZeneca's sites throughout the world (whether in person or virtually) and, for new Directors, induction sessions and site visits. The Chair and individual Board members ensure that Board members' time commitment to the Company is sufficient to fulfil their duties as Directors and fully discharge their obligations to shareholders, particularly in the case of the Chairs of Board Committees. For the Chair of the Board, generally, as a basic commitment, it is expected that they would need to devote about 40% of their time or the equivalent of not less than 90 days per annum in the fulfilment of their duties.

When contemplating taking up additional appointments, Non-Executive Directors consult the Chair to ensure thought is given to any potential impact on their time commitment to AstraZeneca. Careful consideration is given to the nature of the potential appointment and the type of company involved (for example, whether the company is a public listed company or privately held), to help assess the likely time requirement. For significant additional appointments, the full Board would typically be involved in this process.

For more information on:

The Nomination and Governance Committee Report, see from page 90.

External audit, see page 96 and Note 31 to the Financial Statements, on page 210.

Internal Audit, see page 96.

The ways in which we manage our business risks, our procedures for identifying our emerging risks, how we describe our Principal Risks and uncertainties, and our Viability statement, see Risk management and controls on the following page, and the Risk Overview from page 54.

The Remuneration Committee's work, see page 102.

In 2023, Aradhana Sarin was appointed as an independent director of Anheuser-Busch InBev and Philip Broadley was appointed as a Non-Executive Director and Chair-designate of Lancashire Holdings Limited. These appointments were considered and approved by the Board on the basis that they would not prevent or reduce the ability of either to perform their roles for AstraZeneca to the required standard.

The performance of the Non-Executive Directors is assessed annually as part of the Board's performance evaluation, as described on page 89.

Subject to specific Board approval, Executive Directors and SET members may accept external appointments as non-executive directors of other companies and retain any related fees paid to them, provided that such appointments are not considered by the Board to prevent or reduce the ability of the executive to perform his or her role within the Group to the required standard.

I. Company Secretary

The Company Secretary is responsible to the Chair for ensuring that all Board and Board Committee meetings are properly conducted, that the Directors receive appropriate information prior to meetings to enable them to make an effective contribution and that governance requirements are considered and implemented. The 2023 Board performance evaluation set out on page 89 provides details of the effective operation of the Board.

3. Composition, succession and evaluation

J. Appointments and succession planning

The Nomination and Governance Committee and, where appropriate, the full Board, regularly review the composition of the Board and the status of succession to both SET- and Board-level positions. Directors have regular contact with, and access to, succession candidates for SET positions. The Committee also recognises the importance of diversity when considering potential appointments.

There is a formal, rigorous and transparent procedure for appointments to the Board. The Nomination and Governance Committee Report details changes in Board composition during the year, and the appointment and induction processes, from page 90.

In accordance with Article 66 of the Articles of Association of the Company (the Articles), all Directors retire at each AGM and may offer themselves for re-election by shareholders. The Notice of AGM will give details of those Directors seeking election or re-election.

K. Skills, experience and knowledge

When the Nomination and Governance Committee reviews the composition of the Board and its Committees, it uses a matrix that records the skills and experience of current Board members and compares this with the skills and experience it believes are appropriate to the Company's overall business and strategic needs, both now and in the future.

The Committee is also mindful of Directors' lengths of tenure and the need to refresh Board membership over time.

L. Board evaluation

In 2023, the Board undertook an internal Board performance evaluation. More information on the evaluation process, including the results and actions taken, can be found on page 89.

4. Audit, risk and internal control

M. Internal and external audit

The Audit Committee is responsible for reviewing the relationship and independence of our external auditor, PricewaterhouseCoopers LLP (PwC). The Committee maintains a policy for the pre-approval of all audit services and audit-related services undertaken by the external auditor, the principal purpose of which is to ensure that the independence of the external auditor is not impaired. A tender of audit services will be conducted in 2024 with any change taking effect from 2027. More information can be found on page 101.

The Audit Committee also reviews the independence and effectiveness of Group Internal Audit.

N. Fair, balanced and understandable assessment

The Board considers this Annual Report, taken as a whole, to be fair, balanced and understandable, and provides the information necessary for shareholders to assess AstraZeneca's position and performance, business model and strategy. The Board's assessment is described on page 100.

The Board and the Audit Committee review the Company's quarterly financial results announcements to ensure they present a fair, balanced and understandable assessment of the Company's position and prospects to shareholders.

O. Risk management

The Board is responsible for the Company's risk management system and internal controls, and their effectiveness. The Board delegates some responsibilities for risk management oversight to the Audit Committee, such as quarterly reviews of the Company's principal and key active risks. During 2023, the Directors continued to review the effectiveness of our system of controls, risk management (including a robust assessment of the emerging and principal risks) and high-level internal control processes. This included an annual Governance and Assurance Report to all Directors, which is considered in detail by the Audit Committee and reviewed by the Board.

Any areas of concern are highlighted in the Audit Committee Chair's update to Directors at the relevant Board meeting and discussed by the Board. The Report is based on a full year-end review of the Company's risk and control processes (incorporating financial, operational and compliance controls) and findings from assurance processes.

The Directors believe that the Group maintains an effective, embedded system of internal controls and complies with the FRC's guidance entitled 'Guidance on Risk Management, Internal Control and Related Financial and Business Reporting'.

5. Remuneration

P. Remuneration policies and practices

The Remuneration Committee is responsible for determining, approving and reviewing the Company's global remuneration principles and frameworks, to ensure that they support the strategy of the Company and are designed to promote long-term sustainable success.

Q. Developing executive remuneration policy

The Remuneration Committee routinely reviews the Directors' Remuneration Policy and executive remuneration arrangements to ensure they continue to promote the delivery of the long-term strategy and support the Company's ability to recruit and retain executive talent to deliver against that strategy. The Committee also considers remuneration arrangements in the context of corporate governance best practice and arrangements for the wider workforce, and regularly consults with its major investors on remuneration proposals. No Director is involved in determining their own remuneration arrangements or outcomes.

R. Remuneration outcomes and independent judgement

To ensure it maintains independent judgement when determining remuneration outcomes, the Remuneration Committee considers a range of data including detailed business and individual performance information. The Committee also consults with other Board Committees to utilise their expertise when determining performance outcomes.

Further information on Directors' appointments

Chair of the Board

Mr Demaré was appointed as Chair of the Board at the conclusion of the 2023 AGM, following Mr Johansson's retirement, and he was considered independent upon appointment.

Non-Executive Directors' independence

In December 2023, the Board considered the independence of the Non-Executive Directors, other than the Chair of the Board, for the purposes of the Code and the Nasdaq Listing Rules. Taking into account the recommendations set out in the Code and the Nasdaq Listing Rules, the Board considers that all the Non-Executive Directors except Marcus Wallenberg are independent. Marcus Wallenberg was appointed as a Director of Astra in May 1989 and subsequently became a Director of the Company in 1999. He is a Non-Executive Director of Investor AB, which has a 3.33% interest in the issued share capital of the Company as at 7 February 2024. For these reasons – his overall length of tenure and relationship with a significant shareholder – the Board does not believe that he can be determined independent under the Code. However, the Board believes that he has brought, and continues to bring, considerable business experience and makes a valuable contribution to the work of the Board.

As well as being a Non-Executive Director of AstraZeneca and Chair of the Board's Sustainability Committee, Nazneen Rahman is the Director of the Sustainable Medicines Partnership (SMP), a multi-stakeholder, not-for-profit collaboration with the aim of advancing the environmental sustainability of medicines. AstraZeneca is a strategic collaborator in the SMP. Dr Rahman has recused herself from acting as the lead contact for the SMP in its relationship with AstraZeneca, and this relationship, including project work and overall programme management, is handled by other members of the SMP team.

Risk management and controls

Global Compliance and Group Internal Audit (GIA)

Through our compliance programme and three lines of defence risk management framework (line management; Risk and Compliance functions; GIA), Global Compliance helps the Group achieve its priorities and do business the right way. It takes a global approach that addresses key risk areas, including those related to third parties and anti-bribery/anti-corruption. Its work helps us to reinforce compliant behaviours through our Code of Ethics, policies, training, advice and guidance. We also conduct risk assessment activities and foster a culture where individuals can raise concerns.

We take alleged compliance breaches and concerns seriously. We investigate and take appropriate disciplinary and remediation action to address and prevent reoccurrence through internal functions and external advisers. Depending on breach severity, the Group may need to disclose and/or report the incident to a regulatory or government authority.

Global Compliance provides assurance insights to the Audit Committee on compliance matters. GIA carries out a range of audits and periodically reviews the assurance activities of other Group functions.

The results from these activities are reported to the Audit Committee. Global Compliance and GIA share outcomes and coordinate reporting on compliance matters throughout the organisation. GIA is established by the Audit Committee on behalf of the Board and acts as an independent and objective assurance function guided by a philosophy of adding value to improve the operational control framework of the Group. The scope of GIA's responsibilities encompasses, but is not limited to, the examination and evaluation of the adequacy and effectiveness of the Group's governance, risk management and internal control processes in relation to the Group's defined goals and objectives.

Among others, internal control objectives considered by GIA include:

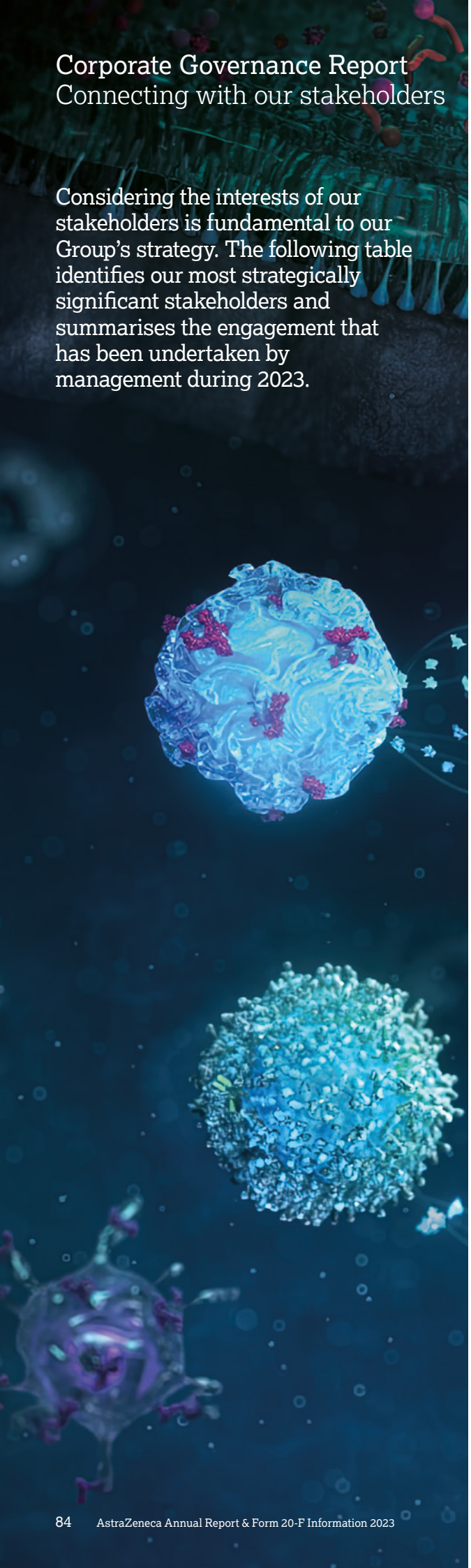
- Compliance with significant policies, plans, procedures, laws and regulations.
- Consistency of operations or programmes with established objectives and goals, and effective performance.
- Safeguarding of assets.

Based on its activity, GIA is responsible for reporting significant risk exposures and control issues identified to the Board and to senior management, including fraud risks, governance issues and other matters needed or requested by the Audit Committee. It may also evaluate specific operations at the request of the Audit Committee or management, as appropriate.

For more information on the Remuneration Committee, see the Directors' Remuneration Report, from page 102.

Corporate Governance Report
Connecting with our stakeholders

Considering the interests of our stakeholders is fundamental to our Group's strategy. The following table identifies our most strategically significant stakeholders and summarises the engagement that has been undertaken by management during 2023.



	Patients and patient networks	Payers
Overview Significance of the stakeholder to the business	Patients are at the heart of what we do. Our stakeholders include individual patients, caregivers and patient advocacy organisations. We listen to their experiences, embedding these insights into every aspect of our work, and partner with them to enable access to high quality, resilient healthcare systems, ensuring that the medicines and services we develop have the greatest impact on their lives.	AstraZeneca works closely with payers, which includes governments and medical insurance companies among others, to understand the impact of pricing medicines on public and private budgets.
Interests Issues and factors which are most important to the stakeholder group	> Diverse insights gathered and incorporated throughout the drug development process to minimise patient burden and measure outcomes they care about most. > Ensuring healthcare systems are designed and delivered with the patient in mind. > Providing transparent, accessible information. > Ensuring the safety, efficacy and affordable accessibility of our medicines.	> Sustainable access to safe and effective innovative medicines. > Pricing of medicines, including breakthrough therapies and impact on public budgets. > Containing reimbursement expenditure. > Attracting business investment. > Investing in research and scientific collaborations.
Engagement Examples of engagement in 2023	> Increased number of diverse patient engagements throughout drug development and commercialisation. > Patient Partnership Program expanded into new disease areas and evolved across novel initiatives to support end-to-end patient engagement. > Involved patients and caregivers in co-creation of multiple programmes. > Expanded patient support and affordability programmes. > Collaborated with patient advocacy organisations on key healthcare system transformation projects, enabling access to improved healthcare and medicines across the globe.	> Engaged governments and policymakers to increase understanding of the AstraZeneca business model, to support investment in life sciences and to improve access to new medicines. > Engaged in discussions on evolving the current reimbursement system for medicines in the US. > Hosted site visits and tours at our manufacturing and R&D facilities for international and local politicians.
Outcomes Actions which resulted	> Delivery of impactful and actionable insight to drive patient-focused drug development and commercialisation. > Increased patient support programmes across therapy areas. > Driven global consensus and brought about tangible healthcare system changes at a country level.	> Established working relationships with key government stakeholders. > Regular meetings and events organised to increase understanding about how governments can better support life sciences investment and improve patient access to new medicines.

	Investor community	Healthcare professionals	Academic and R&D partners	Commercial collaborators and partners
Overview Significance of the stakeholder to the business	The Board and management maintain regular and constructive dialogue with investors to communicate our strategy. We provide objective information about performance to enable investors to put a fair value on the Company and ensure our continued access to capital.	Healthcare professionals (HCPs) are the interface with patients. They provide insights into clinical trial design and prescribing, advising patients on administering medicines, providing safety reports, collaborating in clinical studies and assisting with the ethical and transparent distribution of medicines.	We collaborate with academic institutions and non-profit R&D partners globally to access the best science, to stimulate innovation and to deliver life-changing medicines to patients.	Partnering is an increasingly important part of our business. By combining forces, AstraZeneca and our partners can accelerate innovative science to bring life-changing medicines to patients.
Interests Issues and factors which are most important to the stakeholder group	> Financial and commercial performance. > R&D strategy, resource allocation and pipeline development. > Culture, values and behaviours. > Exposure to geopolitical and macroeconomic risks. > ESG matters.	> Development of medicines for unmet medical need. > Education and information on advances in medical science. > Accurate and balanced information on licensed medicines, including up-to-date safety data. > Uninterrupted supply of quality medicines. > Ethical and transparent interactions with industry.	AstraZeneca had more than 1,500 active academic collaborations during 2023: > To advance innovative technology and science. > To address key scientific challenges. > To access the next generation of science leaders.	> Shared vision and values. > Development of innovative medicines and improving access to them. > Trust and transparency in research, disclosures and relationships with stakeholders. > Willingness to collaborate with industry peers to optimise outcomes for common stakeholders, e.g. patients, physicians, policymakers and healthcare systems.
Engagement Examples of engagement in 2023	> Ongoing communications including quarterly results calls, in-person and virtual meetings, and roadshows. > Regular events at medical conferences and periodic updates on portfolio and pipeline developments. > Receptions hosted by the Chair of the Board.	> Engaged in HCP educational events, advisory boards and in clinical trials. > Responded to more than 199,000 HCP enquiries and processed over 100,000 adverse event reports from HCPs.	> We support more than 900 early career positions in R&D globally, including graduates, placement students, sponsored PhDs, and postdoctoral researchers. > Worked side-by-side with academic researchers in dedicated university laboratories. > Through our Open Innovation programme, we openly share molecules, data and challenges with academic researchers; we currently have four ongoing clinical trials, over 100 pre-clinical studies and three new collaborative research projects aimed at addressing key scientific challenges. > Joint seminars, education sessions and consortia with research institutions, e.g. Royal Society and Partner of Choice Network.	> Regular alliance leadership meetings established to enhance collaboration and create a 'One Team' mentality across organisations. > Joint responsibility for deliverables and outcomes across functions at all levels. > Multiple discussions with regulators, policy makers, patient groups and clinicians, to inform development and commercial strategy to best meet patient needs.
Outcomes Actions which resulted	> Maintained access to senior and next-level/operational management, including increased virtual engagement. > Continued to streamline external-facing materials to provide increased transparency, following discussion with shareholders. > Increased focus on ESG matters within results announcements and shareholder engagements.	> Advisory boards informed clinical research and product strategy. > Clinical studies have led to new products. > Exchange of information supported HCP clinical decision making.	> Enabled innovative solutions though research collaboration. > New technology, new targets and new biomarkers. > Publications. > Capability to offer studentship and post-doctoral programmes to facilitate scientific discovery.	> Optimisation of outcomes through combined skillsets and use of technologies/ platforms to research new medicines, enabling faster delivery of medicines to patients. > Multiple late-stage trials initiated across multiple disease/patient types. > Accelerated launch of new medicines in unique areas. > Greater collaboration and relationships with industry partners and stakeholders.

Corporate Governance Report
Connecting with our stakeholders *continued*

In addition to the principal stakeholders described on pages 84 and 85, the Board considers the following stakeholder groups important for the business operations and strategic direction of the Company.

Community
Wherever we work in the world, we aim to make a positive impact on people and the communities in which they live through our community investment.

We aim to advance patient health, increase access to care, drive science innovation and build healthy and resilient communities for all.

Employees
Successfully acquiring, retaining and developing a talented and diverse workforce is critical to achieving our 2030 Bold Ambition. Our employees are a key part of our strategy and we are committed to being a great place to work. More information is included on pages 44 and 45.

Health authorities
We engage regulators globally about the manufacture, development, review, approval and marketing of our products.

Governments
AstraZeneca partners closely with governments around the world to promote health, support healthcare research and innovation, facilitate equitable access to innovative care solutions, and build resilient and sustainable healthcare systems.

Multilateral and non-governmental organisations (NGOs)
AstraZeneca partners with multilateral organisations and NGOs to deliver science-based health programming that addresses global health issues and supports the delivery of the UN Sustainable Development Goals. AstraZeneca's commitment to reduce health inequity has also been demonstrated by donations to support patients in medically underserved communities and humanitarian settings through disaster relief efforts.

Media
An active and constructive relationship with the media is important to build trust with the Company's key stakeholders by transparently reporting on the Group's activities, including the results of key trials and business updates, as well as seeking to enhance and protect the reputation of the organisation.

Suppliers and third-party providers
AstraZeneca collaborates with a broad range of partners to support the development, manufacturing and delivery of life-changing medicines to patients across the world. Data led and technology driven, the Global Procurement function facilitates collaboration with diverse and ethical suppliers, pursuing some of the most ambitious sustainability targets in the industry to dramatically reduce carbon emissions throughout the supply chain.

How the Board engages with stakeholders

The stakeholder table on pages 84 and 85 sets out management's main interactions with certain key stakeholders. Feedback from these interactions is provided to the Board in a variety of ways, which allows the Board to understand the key interests of stakeholders and consider them in its decision-making process.

The Board undertakes additional direct engagement with stakeholders to better understand their interests and concerns, so these can be factored into its decision making.

Examples of the Board's engagement are set out in the following columns. Information on how stakeholders and other factors were considered in the Board's principal decisions in 2023 is set out on the following page.

Full Board/Other

- During 2023, a number of Directors, including the Chair, the CEO and the CFO, met investors at roadshows and in one-on-one meetings.
- The Chair hosted receptions focused on shareholder engagement, including events in the UK and Sweden.
- The 2023 AGM was held in London, which allowed those shareholders able to attend to interact with, and ask questions of, the Board. All Directors were present at the meeting.
- Investor reports and financial analysts' consensus data are made available to the Board. Feedback is regularly provided to the Board by management on their interactions with investors. The Chair also hosted an annual reception focused on investor engagement.
- The CEO and the CFO, along with other members of management, met governmental agencies and regulators to discuss matters including the pricing of medicines and equitable access.
- The Board held one of its scheduled meetings during 2023 at AstraZeneca's site in Tokyo, Japan and another at its site in Gaithersburg, MD, US. During the meetings, the Board met employees, including scientists and commercial teams, and hosted 'townhall' meetings. During the visits, the Chair also met with external stakeholders, including patient advocacy groups, NGOs and US government staff and officials through a series of meetings and roundtable discussions.
- The CEO attended a number of scientific conferences in 2023, relevant to the Company's main areas of R&D and Commercial activity.
- Members of the Audit Committee visited the Speke, UK site where they met with the site leadership team, branding team, AstraZeneca Speke graduates and apprentices and hosted a 'townhall' meeting. The Committee also visited the AstraZeneca and Alexion UK marketing company site in 2023.
- The CEO and senior leaders met with 15 governments and engaged at 40 events at COP28, highlighting the interconnection between climate action, health resilience and equity, and demonstrating the action at scale the Company is taking on this agenda.
- The Chair of the Audit Committee took part in the following visits during 2023: a virtual visit to the AstraZeneca marketing company in Taiwan; in-person visits to the Gulf Cooperation Council (GCC) cluster in Dubai to meet with the MEA area leadership and GCC leadership teams; visit to the Chennai Global Innovation & Technology Centre which included meetings with the site leadership team and an employee 'townhall' meeting; and finally, a visit to the AstraZeneca India marketing company which also included meetings with senior leadership and an employee 'townhall' meeting.
- Members of the Science Committee visited the AstraZeneca site in Cambridge, UK for a two-day meeting which included a lab visit to the Functional Genomics Centre on the first day. This was followed by a poster session with UK scientists from AstraZeneca and one-to-one meetings with global R&D leaders. In the evening, Science Committee members had informal discussions with meeting presenters from R&D. The second day included a lunch with the Directors, with each Science Committee member hosting a table of AstraZeneca scientists, including rising stars nominated by functions.
- The Chair of the Remuneration Committee met with investors who hold approximately 50% of the Company's issued share capital and with three proxy advisers to discuss the proposals for the 2024 Directors' Remuneration Policy and its implementation for the Executive Directors in 2024. For further information, see the Remuneration Report on page 102.
- The CEO, CFO and the Chair, regularly engaged with employees through in-person and online events, including 'Ask me anything' and 'fireside chats' sessions. Employees had the opportunity to ask questions in advance or during sessions.

For more information on how the Management and the Board have considered Modern Slavery, see the Audit Committee report from page 94, Human Rights on page 45 and AstraZeneca's Modern Slavery Act Statement, which is available on our website, www.astrazeneca.com.

Corporate Governance Report
Principal Decisions

Set out below are examples of how key stakeholders, Section 172(1) duties and other matters are considered by the Board when making its Principal Decisions in 2023.

Principal Decisions in 2023

2023 Group Funding Plan

In January 2023, the Board reviewed and approved the Group's 2023 funding plan.

The Board considered: investors; and the long-term success of the Company.

How the Board had regard to these matters:

> Reviewed the expected funding requirements for the year ahead as well as the medium- and long-term funding and liquidity prospects.
> Discussed the Group's capital allocation priorities, the long-term strategy and the measures required to deliver the strategy, including investment in the pipeline and potential external acquisitions to further strengthen the pipeline. The Board considered the benefit of these investments for patients and investors, alongside the potential impact of acquiring debt.
> Considered the Group's liquidity position and the expectations of investors regarding the progressive dividend policy.

Board Committees' composition and succession planning

During 2023, the Board reviewed and made the following appointments:

> Appointment of Michel Demaré as Chair of the Nomination and Governance Committee.
> Appointment of Nazneen Rahman as a member of the Remuneration Committee.
> Appointment of Euan Ashley as Chair of the Science Committee.
> Appointment of Euan Ashley as a member of the Nomination and Governance Committee.
> Appointment of Anna Manz as a Non-Executive Director and member of the Audit Committee.

The Board considered: investors; the long-term success of the Company; and maintaining high standards of business conduct.

How the Board had regard for these matters:

> Engaged with a number of AstraZeneca's largest shareholders for them to hear about the search processes and to understand their views.
> Considered the Board's diversity, time commitments of the candidates and other relevant UK Corporate Governance Code provisions, as well as other Board-level succession planning considerations.
> Reviewed the experience of potential candidates and met those who were shortlisted to evaluate which individuals had the skills required to support management in the continued delivery of value to shareholders and life-changing medicines to patients, while also maintaining high standards of business conduct.
> Considered the succession requirements of the Board, the length of tenure of the current Non-Executive Directors and the independence requirements as set out in the UK Corporate Governance Code, and the importance of ensuring a smooth and orderly transition.
> Considered the continuity and reassurance the appointments provided to management and investors, and had regard to the likely consequences of the decision in the long term and the interests of those most affected.

Acquisitions and collaborations to strengthen the pipeline

During 2023, the Board considered, and approved, a number of transactions to strengthen the Group's pipeline and accelerate the development of potentially life-changing medicines. These included the acquisition of CinCor Pharma; the acquisition of a rare disease gene therapy portfolio and technologies from Pfizer; the research and collaboration agreement with Quell Therapeutics; the approval of the equity investment and global research and collaboration agreement in cell and gene therapy with Cellectis; the approval of the in-licensing of AZD5004 from Eccogene; the acquisition of Gracell Biotechnologies; and the acquisition of Icosavax.

The Board considered: investors; the long-term success of the Company; employees; patients; and maintaining high standards of business conduct.

How the Board had regard to these matters:

> Reviewed the unmet medical need and considered how the transactions would further strengthen the Group's pipeline.
> Considered the benefits to patients if the Group was able to accelerate the development of novel treatments, which could potentially deepen clinical responses and improve patient outcomes.
> Considered the financial impact of the transactions on the Group's viability and capital allocation priorities, alongside the financial benefits from the acquisitions if the technologies were successful.

Divestment of *Pulmicort Flexhaler* in the US

During 2023, the Board approved the divestment of *Pulmicort Flexhaler* in the US to Cheplapharm.

The Board considered: investors; the long-term success of the Company; patients; and maintaining high standards of business conduct.

How the Board had regard to these matters:

> Considered the Company's long-term strategy, the status of *Pulmicort* intellectual property in the US and the potential impact this may have on revenue, as well as the investment required in the pipeline to ensure the development of further life-changing medicines.
> Recognised the importance in ensuring that appropriate arrangements were in place to ensure the continued supply of medicines to patients.
> Considered the financial benefit of the divestment and how this could be reinvested, to further benefit patients and shareholders.

Settlement of patent litigation

In July 2023, the Board approved the settlement of the patent litigation with Bristol-Myers Squibb and related parties relating to *Imfinzi* and *Imjudo*.

The Board considered: investors; the long-term success of the Company; and maintaining high standards of business conduct.

How the Board had regard to these matters:

> Reviewed the financial impact of the settlement and the potential benefits and risks of continuing with the litigation.
> Considered the settlement value compared to the cost of continued litigation and the potential size of damages which were being sought.
> The time and efforts required from management in continuing to defend the litigation and the potential distraction this could create.

Board's reserved powers and delegation of authority to the CEO

In May 2023, the Board reviewed its reserved powers and delegation of authority to the CEO, and made the following changes:

For the Section 172(1) statement, see page 74.

For more information on funding, see Note 28 to the Financial Statements from page 195.

For more information on committees' composition and succession planning, see the Nomination and Governance Committee Report from page 90.

For more information on acquisitions and collaborations, see Business development from page 42.

For more information on patent litigation, see Patent litigation in Note 30 to the Financial Statements from page 204.

- Increased the CEO's limit for business development transactions.
- Introduced a new reserved power covering significant restructuring programmes.
- Introduced a new reserved power covering the settlement of major litigation.
- Introduced new references to approving material capital structure changes (including reductions of capital and share buybacks) and approving any changes to AstraZeneca PLC's stock exchange listings or status as a public limited company.

The Board considered: the long-term success of the Company and the need to maintain high standards of business conduct.

How the Board has regard for these matters:

- Considered that decisions should be made efficiently and at the appropriate level within the Company.
- Considered the results of a high-level benchmarking exercise carried out in respect of those FTSE 20 companies that publish this information.
- Considered the Group's total revenue, operating profits and net cash flow from operating activities which have increased significantly since the last review.
- Considered the governance implications of potential changes, particularly that the change would reduce the number of projects reviewed by the Science Committee prior to Board approval. The Board agreed that the Science Committee would be free, if it wished, to continue to be briefed on relevant transactions with a value exceeding the previous threshold but below the newly approved threshold.
- Considered the overall Group materiality threshold applied by AstraZeneca's auditors, PwC, in its audit work when setting the new thresholds.
- Considered comparisons with peers and best practice.
- Reviewed updates to the proposed role of the Board (including adding a reference to the Board's role to safeguard and enhance AstraZeneca's reputation), the Chair and CEO.

Engaging with our workforce

AstraZeneca is committed to being a great place to work. Engagement with employees is an important element in ensuring an environment in which all employees are respected, where openness is valued, diversity celebrated and every voice heard. We rely on our global workforce to uphold our Values, deliver our strategic priorities and work to sustain and improve short- and long-term performance. For AstraZeneca, 'global workforce' includes our full-time and part-time employees, fixed-term workers and external contractors working full- or part-time, anywhere in the world.

The Directors believe that the Board as a whole should be responsible for engaging with and understanding the views of the workforce. Consequently, the Board has chosen not to implement any of the three methods set out in the Code. Instead, it uses various mechanisms and long-standing communication channels in place across the Group that enable and facilitate engagement with the global workforce. These include the Board's review of the global workforce Pulse survey and the biannual Workforce Culture and Employee Engagement Report; Board members hosting 'townhall' meetings for the workforce, including Q&A sessions; and review of data relating to talent, development, inclusion and diversity initiatives, and online social media channels. Directors also visit our sites and carry out virtual engagements, which facilitate understanding of business operations and also provide opportunities for interactions between Directors and the workforce, including engagement with high-potential employees. Where required, issues or concerns raised by the workforce are fed back to management and discussed by the Board. Whenever relevant, the Board considers the views of the workforce and the potential impact on the workforce when it makes key decisions.

Engaging with the wider workforce can present challenges due to the size of the workforce and the global footprint, as well as the variety of roles throughout the organisation. In addition to in-person engagements, virtual engagements help to ensure that individual Directors, as well as Board and Board Committees, have the opportunity to meet with a range of employees from across the global workforce, and to hear and understand their views.

The Board believes that this alternative approach continues to be the best model of engagement for the Group and ensures that the Board has access to the views of the workforce regardless of location and provides meaningful information and data that the Board can use when considering the impact of strategic decisions on employees. Additionally, the chosen mechanisms allow all Directors to engage with a wider cross-section of the global workforce.

Workforce culture

During 2023, the Board reviewed the biannual Workforce Culture and Employee Engagement Report, which demonstrated how our Values and behaviours are embedded throughout all levels of the workforce. The report contains a summary metric dashboard which is divided into categories reflecting AstraZeneca's Values and behaviours. Where the Board has concerns that the culture does not reflect our Values, the Board seeks assurances from management that remedial action has been taken and, where necessary, requests senior management's attendance at Board meetings to discuss corrective actions.

92%

of employees took part in the November 2023 Pulse survey.

'Townhall' meetings, 'fireside chats' and 'Ask me anything' discussions

Both Non-Executive Directors and Executive Directors regularly participate in meetings with sites, or large groups of the workforce – either virtually or in person. These enable direct engagement between the Board and employees, including Q&A sessions, such as the Chair 'fireside chat'. During the year, among other events, the Board hosted in-person 'townhall' meetings for employees in Japan and US sites, which were also broadcast to other sites in the region to increase reach and participation.

Employee opinion surveys (Pulse)

Twice a year, employees are invited to take part in an opinion survey, which seeks their views of the business. The results are reviewed by management and trends are monitored. The results are shared with the Board, which enables the Directors to understand the views and sentiments of the workforce.

89%

of employees stated they believe strongly in AstraZeneca's future direction and key priorities in the November 2023 Pulse survey.

Site visits

During 2023, Directors visited various Group sites across the world, including those in India, Dubai, Japan, the US, the UK and the Alexion campus in Dublin, Ireland. The majority of visits were in person but, to maximise engagement opportunities, some were virtual, including those to the AstraZeneca businesses in the Nordics, Spain and Taiwan.

>10

AstraZeneca Group sites around the world visited by Directors during 2023.

Wellbeing

Where appropriate – for example in relation to recent humanitarian events – the Board receives regular updates on the steps taken by management to create safe working environments and support the mental and physical wellbeing of the workforce.

Corporate Governance Report
Board performance evaluation

As part of the Board performance evaluation, Directors were asked to consider the following areas:

- Board composition
- Stakeholder oversight
- Board dynamics
- Board Committees
- Strategic oversight
- Risk oversight
- Succession planning and people oversight
- Priorities for change

2023 overview

The UK Corporate Governance Code states that there should be an annual evaluation of the performance of the board, its committees, the chair and individual directors and that, for larger listed companies such as AstraZeneca, this should be externally-facilitated at least every three years. The Company was due to have an externally-facilitated evaluation in 2023.

The Board elected to postpone the externally-facilitated review until 2024 and instead run an internal performance evaluation in 2023. This was considered to be a proportionate approach in light of the change in Chair during the year. Given the 27 April 2023 effective date of appointment of Michel Demaré as Board Chair, the Board concluded that it would be a better use of time and resources for the next externally-facilitated annual performance review to take place in 2024, so that at least the first 12 to 18 months of the Board's work under the new Chair could be taken into account.

The internal evaluation was run via a web-based survey covering a wide range of topics that were broadly similar to topics from previous evaluations. A report was prepared using the answers to this survey which was discussed by the Board at its meeting in December 2023, and was used by the Chair as the basis for individual conversations with each Board member prior to the full Board discussion.

As part of each Director's individual discussion with the Chair during the Board evaluation, his or her contribution to the work of the Board and personal development needs were considered. Directors' training needs are met by a combination of: internal presentations and updates, and external speaker presentations, as part of Board and Board Committee meetings; specific training sessions on particular topics, where required; and the opportunity for Directors to attend external courses at the Company's expense, should they wish to do so.

The Nomination and Governance Committee also reviews the composition of the Board to ensure that it has the appropriate expertise, while also recognising the importance of diversity. For more information on the Nomination and Governance Committee's work, see the Nomination and Governance Committee Report from page 90.

2023 outcomes and actions against prior year recommendations

- The Board continues to operate effectively with an atmosphere that enables candid discussion. Its relationship with management, including the CEO, CFO and SET, was highly rated.
- Each Director continues to perform effectively and demonstrate commitment to their role, as does the Chair (whose evaluation by Board members, absent the Chair, was led by the senior independent Non-Executive Director).
- The composition of the Board was highly rated.
- The Board has a good understanding of the views and requirements of its key stakeholders.
- All of the Board's Committees continue to operate effectively.
- The Board's contribution to strategy development, oversight of the R&D pipeline and effectiveness in monitoring and considering key external developments were highly rated. The Board oversees risk effectively.

Succession planning and people oversight continues to be a key area of focus. Key priorities for 2024 included strategy, financial performance and capital allocation, monitoring the R&D pipeline, market-specific and geopolitical issues, and Board and SET succession planning. To address areas highlighted by the 2022 annual Board performance evaluation, various steps were taken during 2023, including:

- The re-establishment – following the COVID-19 pandemic – of a strong programme of in-person Board meetings, including site visits, balanced with some Board meetings being held virtually to reduce the Board's carbon footprint and the need for Directors to undertake intercontinental travel.
- Focusing the Nomination and Governance Committee's work regarding Non-Executive Director succession planning on addressing the needs of the Board in the period to 2026, when four current Non-Executive Directors will reach nine years' tenure, with the appointment of Anna Manz in September 2023 being the first tangible outcome of this work.
- Continued routine work by the Nomination and Governance Committee to plan for future CEO succession, including reviews of both internal and external potential candidate options.
- Arranging a session to enable the Board to review how management was approaching drug pricing legislation in the US.

Nomination and Governance Committee Report

"The Nomination and Governance Committee works on behalf of the full Board to review the composition of the Board and its Committees and carry out succession planning for all Board positions."

Nomination and Governance Committee members

- Michel Demaré (Chair) (from 27 April 2023)
- Leif Johansson (Chair) (until 27 April 2023)
- Philip Broadley
- Sheri McCoy
- Nazneen Rahman
- Euan Ashley[1]

[1] Appointed as a member of the Committee on 1 June 2023.

Non-Executive Directors' experience, as at 31 December 2023

On behalf of the Nomination and Governance Committee (the Committee), I am pleased to present the Committee's report on its activities during 2023.

Committee's role

The Committee works on behalf of the full Board to review the composition of the Board and its Committees and carry out succession planning for all Board positions, including taking the lead in the search for and recruitment of new Directors. The Committee ensures the Board has an appropriate balance of expertise, experience and diversity. A matrix that records the skills and experience of current Board members is one of the main tools used by the Committee to do this.

The Nomination and Governance Committee's terms of reference are available on our website, www.astrazeneca.com.

The matrix is shown in the charts to the left.

Decisions relating to the appointment of Directors are made by the entire Board based on the Committee's recommendations, taking into account the merits of the candidates and the relevance of their background and experience, measured against objective criteria, with care taken to ensure appointees have enough time to devote to the Board's business.

Board and Board Committee changes during the year

Following the retirement of Leif Johansson from the Board at the end of the AGM on 27 April 2023, I was appointed Chair of the Board. In addition, I also assumed the role of Chair of this Committee. Further details about the Chair succession process are set out in the 2022 annual report.

In April, the Board appointed Euan Ashley as Chair of the Science Committee, in succession to Nazneen Rahman, effective 1 June 2023, with Nazneen remaining a member of the Science Committee. Euan was appointed as a member of the Nomination and Governance Committee, effective the same date. The Board appointed Nazneen Rahman as a member of the Remuneration Committee, effective 1 May 2023.

In May, the Board appointed Anna Manz as a Non-Executive Director and a member of the Audit Committee with effect from 1 September 2023. The appointment process was led by the Committee and involved Anna meeting with multiple Directors. Anna brings extensive cross-sector business skills and knowledge to the Board, having held international roles in North America and Asia-Pacific and served as an executive and non-executive in large, listed companies. Anna's significant financial and strategic leadership experience, including in areas such as risk, treasury and accounting, will enable her to fully contribute to the work of our Audit Committee.

Inclusion and diversity

The Board views all aspects of diversity among Board members as important considerations when reviewing its composition. The Board also aims to maintain a balance in terms of the range of experience and skills of individual Board members, which includes relevant international business, pharmaceutical industry and financial experience, and appropriate scientific and regulatory knowledge. The biographies of Board members set out on pages 78 and 79 give more information about current Directors in this respect.

The Board has adopted an Inclusion and Diversity Policy (the Policy), which is applicable to the Board and its Committees. The Policy reinforces the Board's ongoing commitment to all aspects of diversity and to fostering an inclusive environment in which each Director feels valued and respected. Although the Board appoints candidates primarily based on merit and the relevance of their background and experience, measured against objective criteria, it recognises that an effective Board, with a broad strategic perspective, requires diversity. The Policy provides a commitment to use at least one professional search firm that has signed up to the 'Voluntary Code of Conduct for Executive Search Firms', to help recruit Directors from a broad, qualified group of candidates, to increase diversity of thinking and perspective. The Board's approach to inclusion and diversity continues to yield successful results.

As at 31 December 2023, 31% of the Company's full Board identifies as an ethnic minority, 45% of the Company's Non-Executive Directors are women, and women make up 46% of the full Board. The information presented in the following tables was collected on a self-reporting basis. The Board, SET and Company Secretary were provided with the prescribed table, and asked to complete based on how they identify. The Board is pleased that the Company meets the

updated diversity policy targets as specified in the FCA's Policy Statement on Diversity and inclusion on company boards and executive management, which was published in April 2022:

- 46% of the Board are women, above the target of at least 40%.
- Following the appointment of Aradhana Sarin as CFO, the Company meets the policy target that at least one of the Chair of the Board, Chief Executive Officer, senior independent Non-Executive Director or Chief Financial Officer be a woman.
- The Board satisfies the target of at least one member of the Board being from a non-white ethnic minority background.

As well as being considered in decisions about succession and Board appointments, inclusion and diversity is integrated across our Code of Ethics and associated workforce policy for the organisation as a whole. We were named 2nd ranking Healthcare company in the FTSE 100 for women on boards and in leadership in the FTSE Women Leaders Review. For the year ended 31 December 2023, following the retirement of Katarina Ageborg in January 2023 and Sharon Barr's appointment as Executive Vice-President, BioPharmaceuticals R&D in August 2023, women represented 43% of the SET and its leadership teams.

Table 1. Reporting table on sex/gender representation as at 31 December 2023

	Number of Board members	Percentage of the Board	Number of senior positions on the Board (CEO, CFO, SID and Chair)	Number in executive management	Percentage of executive management
Men	7	54%	3	7	54%
Women	6	46%	1	6	46%
Non-binary	–	–	–	–	–
Not specified/prefer not to say	–	–	–	–	–

Table 2. Reporting table on ethnicity representation as at 31 December 2023

	Number of Board members	Percentage of the Board	Number of senior positions on the Board (CEO, CFO, SID and Chair)	Number in executive management	Percentage of executive management
White British or other White (including minority-white groups)	9	69%	3	9	69%
Mixed/Multiple Ethnic Groups	1	8%	–	1	8%
Asian/Asian British	3	23%	1	3	23%
Black/African/Caribbean/ Black British	–	–	–	–	–
Other ethnic group, including Arab	–	–	–	–	–
Not specified/prefer not to say	–	–	–	–	–

Ongoing training and development

On her appointment as an independent Non-Executive Director, Anna Manz commenced an ongoing tailored induction programme to provide an understanding of the Group and which reflects Anna's existing expertise and Committee membership. Key areas of the induction programme include:

- Meetings with members of the Board, SET and other senior management.
- Meeting with external legal advisers.
- Meeting with the external auditors.
- Access to a digital reading room which provides information on the Group, including financial performance, pipeline information, key Company policies, investor and analyst reports, media updates and guidance on directors' duties and listed company requirements.

In addition to arranging comprehensive induction programmes when new Non-Executive Directors are appointed to the Board, the Committee recognises the importance of continuing development and training opportunities for all Directors. We are committed to developing a culture of lifelong learning throughout our organisation. Specific sessions with internal and external experts are periodically arranged for the full Board, to ensure that Directors have access to specialist knowledge across a broad range of areas to support their strategic decision making. For example, this year Board members participated in a roundtable event with key external experts in the areas of lung cancer and ATTR during the Board meeting in Tokyo, Japan to discuss the latest science and clinical research in those areas.

At least annually, I discuss with each Director his or her contribution to the work of the Board and personal development needs. Directors' training needs are met by: a combination of internal presentations and updates, and external speaker presentations, as part of Board and Board Committee meetings; specific training sessions on particular topics, where required; and the opportunity for Directors to attend external courses at the Company's expense, should they wish to do so. Directors are encouraged to visit the Group's sites, providing opportunities to meet local management and tour AstraZeneca facilities. Virtual visits are also arranged to allow further interactions with employees and sites. These visits further Directors' understanding of the Group's business and operations, as well as provide an insight into the particular challenges faced locally and opportunities to engage directly with employees and other stakeholders.

Succession planning

The Committee considers both planned and unplanned (unanticipated) succession scenarios. The Committee split the majority of its time on this topic in 2023 between succession planning for Non-Executive Directors, successfully concluding the recruitment of Anna Manz in September and continued routine succession planning for the role of CEO, which included desktop research relating to potential external candidates and reviewing the strengths and areas of development for potential internal candidates. Korn Ferry and Lygon Group assisted the Committee with its succession planning work this year. Korn Ferry undertakes executive search assignments for the Company but has no other connection with AstraZeneca or its individual Directors.

Corporate governance

The Committee advises the Board periodically on significant developments in corporate governance and the Company's compliance with the UK Corporate Governance Code. Further information on our corporate governance arrangements, including the Company's statement of compliance with the Code during the year, is set out from page 81.

Michel Demaré
Chair of the Nomination and Governance Committee

The Board's Inclusion and Diversity Policy can be read in full on our website, www.astrazeneca.com.

Information about our approach to diversity in the organisation below Board level can be found in People, from page 45.

Science Committee Report

"The Science Committee's core role is to provide assurance to the Board regarding the quality, competitiveness and integrity of the Group's R&D activities."

Science Committee members

> Euan Ashley (Chair) (from 1 June 2023)
> Nazneen Rahman (Chair until 1 June 2023)
> Diana Layfield
> Tony Mok
> Marcus Wallenberg
> EVP, Oncology R&D[1]
> EVP, BioPharmaceuticals R&D[1]
> CEO, Alexion[1]

[1] Co-opted member of the Committee.

Chair's introduction

The Science Committee's (the Committee) core role is to provide assurance to the Board regarding the quality, competitiveness and integrity of the Group's R&D activities. Our dialogue with AstraZeneca's R&D leaders and other scientist employees, as well as visits to our R&D sites throughout the world, allows us to review and assess:

> The approaches we adopt in respect of our chosen therapy areas.
> The scientific technology and R&D capabilities we deploy.
> The scientific strategy for maintaining our pipeline and competitiveness.
> The decision-making processes for R&D projects and programmes.
> The quality of our scientists, their career opportunities and talent development.
> Benchmarking against industry and scientific best practice, where appropriate.

We also periodically review important bioethical issues and assist in the formulation of appropriate policies in relation to such issues, agreeing these on behalf of the Board. The Committee also considers future trends in medical science and technology, and reviews, on behalf of the Board, the R&D aspects of specific business development or acquisition proposals, advising the Board on its conclusions.

Activities during the year

The Committee met nine times during 2023, both virtually and face to face. Our key areas of focus included:

> **Company strategy and strategic priorities for R&D:** including key prioritised science platforms across R&D (Oncology, BioPharmaceuticals and Rare Disease) and areas of focus for long-term success, including business development strategy and external trends impacting R&D investment.
> **AstraZeneca R&D strategic science capabilities:** including multi-omics and bioinformatics, and AI and computational strategies. This was supported by further in-person presentations from AstraZeneca scientists on site at Cambridge, UK covering across all R&D areas.
> **Acquisitions and in-licensing agreements:** review for the Board the scientific case for acquisition and licensing opportunities, including:
  – Acquisition of CinCor Pharma, Inc., adding baxdrostat (CIN-107) to the cardiorenal portfolio.
  – Exclusive global licence agreement with KYM Biosciences, for CMG901, a potential first-in-class ADC targeting Claudin 18.2.
  – Acquisition of Neogene Therapeutics Inc., a global clinical-stage biotechnology company pioneering the discovery, development and manufacturing of next-generation TCR-Ts.
  – Purchase and licence agreement for a portfolio of pre-clinical gene therapy programmes and enabling technologies from Pfizer Inc.
> **R&D in China:** The Committee had an in-person meeting with AstraZeneca China R&D and Business Development leadership to discuss external R&D landscape, innovation opportunities and future plans.
> **Clinical Trials Operations strategies:** a review of Clinical Operations focusing on challenges and opportunities driven by internal changes and external factors.
> **Corporate scorecard outturn and goal setting:** providing insight and feedback to the Remuneration Committee in support of 2023 achievements and 2024 goal setting relating to R&D.

Euan Ashley
Chair of the Science Committee

The full role of the Science Committee is set out in its terms of reference, available at www.astrazeneca.com.

Sustainability Committee Report

"The Sustainability Committee continued its important work during 2023 to oversee the execution of the Company's sustainability strategy."

Sustainability Committee members

> Nazneen Rahman (Chair)
> Sheri McCoy
> Andreas Rummelt
> Marcus Wallenberg

Standing attendees at Committee meetings during 2023 included the EVP, Operations, IT and Sustainability and VP, Global SHE and Operations Sustainability.

Chair's introduction

The Sustainability Committee (the Committee) continued its important work during 2023 to oversee the execution of the Company's sustainability strategy. In addition to this important function, the Committee's other roles are:

> To oversee the Company's disclosures relating to sustainability and communication of our sustainability activities with our stakeholders.
> To monitor developments and best practice and provide input to the Board and other Board Committees on sustainability matters as required.
> To advise the Remuneration Committee on the Company's performance against sustainability metrics and targets.

Committee meetings and other informal interactions with employees allow Committee members to engage closely with those charged with executing our sustainability strategy. This helps us develop a deeper understanding of sustainability initiatives, their progress, who executes them, and how this is done, to share with the wider Board.

Activities during the year

During 2023, the Committee met twice formally. In addition, the Committee facilitated a deep dive session for the full Board focusing on developments in laws and regulations relating to sustainability reporting and progress against our Ambition Zero Carbon (AZC) targets and programmes. To enhance our understanding of the sustainability initiatives in action at AstraZeneca and hear colleagues' personal perspectives, the Committee invited employees to its meetings who were involved in workstreams and projects from across our sustainability strategy. This included hearing from R&D scientists in Macclesfield, UK about their work to recover and reuse solvents which are a material contributor to our carbon footprint and a briefing paper relating to the rollout of electronic patient information leaflets.

Our focus areas during the year included:

> How numerous regulations, including the IFRS Sustainability Disclosure Standards, European Sustainability Reporting Standards and Corporate Sustainability Reporting Directive (CSRD), would impact the Company's reporting on sustainability matters and the measures being taken to ensure the Company has a single source of sustainability-related data.
> The establishment and oversight of a new Sustainability Steering Committee comprised of representatives from Finance, Sustainability, Compliance, HR and Government Affairs which will be accountable to both the Committee and the Audit Committee to ensure consistency over all aspects of sustainability across the business.
> The establishment and development of a health equity strategy which aims to build on existing access to healthcare programmes to enable more equitable health outcomes across the globe.
> Oversight of the conduct of the CSRD double materiality assessment.
> Supporting the Remuneration Committee in its consideration of how the delivery of our ESG priorities is incentivised, and reviewing performance against our ESG remuneration targets relating to AZC.
> Overseeing engagement with investors on sustainability-related matters and reviewing AstraZeneca's external disclosures.

Nazneen Rahman
Chair of the Sustainability Committee

The full role of the Sustainability Committee is set out in its terms of reference, available at www.astrazeneca.com.

For more information about sustainability at AstraZeneca, visit www.astrazeneca.com/sustainability.

Audit Committee Report

"The Committee's main responsibilities include monitoring the integrity of financial reporting and formal announcements relating to financial performance, reviewing the effectiveness of internal controls and risk management systems, and overseeing the external and internal audit processes."

Audit Committee members[1]

> Philip Broadley (Chair)
> Michel Demaré[2]
> Deborah DiSanzo
> Sheri McCoy
> Anna Manz[3]

[2] Member of the Committee until 27 April 2023.
[3] Appointed as a member of the Committee on 1 September 2023.

Chair's introduction

On behalf of the Audit Committee (the Committee) I am pleased to present the Committee's report on its activities and the significant matters we considered during 2023.

In 2023, following his election as Chair of the Board, Michel Demaré stepped down as a member of the Committee immediately following the AGM in April. My thanks go to Michel for his valuable contributions to the Committee's work over the past few years. We also welcomed Anna Manz as a member of the Committee following her appointment to the Board in September. Anna brings wide-ranging, international experience from a number of industries, and has already begun to make effective contributions to the work of the Committee.

The Committee believes that it has carried out its responsibilities effectively throughout the year, and to a high standard, providing independent oversight. It has had good support from AstraZeneca personnel and PwC, the Company's auditors.

The Committee's main responsibilities include monitoring the integrity of financial reporting and formal announcements relating to financial performance, reviewing the effectiveness of internal controls and risk management systems, and overseeing the external and internal audit processes.

The Committee continues to apply appropriate challenge to the Company's management; for example, the Committee challenged the timing of recognition of provisioning for certain legal items and their presentation as non-core items. This matter was subject to robust discussions and scrutiny from the Committee before it was satisfied with management's approach.

The Committee's agenda continues to be driven by the Company's key active risks and key strategic programmes which are considered at every Committee meeting, and inform the Committee's agenda of in-depth sessions which, this year, have included sessions on:

> Our Operations function, as we continue to evolve our supply chain capabilities.
> Our IT/IS function, to gain a better understanding of how we seek to mitigate cybersecurity threats.
> The China market environment and healthcare industry trends, the enforcement environment, and how risks are being proactively managed.
> How the Company seeks to mitigate the impact of inflationary pressures across the business.
> Organisational activities to support the Company's 2030 Bold Ambition.

These sessions allowed the Committee to continue exploring specific aspects of risks in their 'real world' business contexts, in direct dialogue with people in the business that have responsibility for managing these risks.

The Committee also spent considerable time keeping ourselves updated on developments in the reporting and regulatory environment, including the proposed governance and audit reforms in the UK, SEC updated interpretations on non-GAAP measures reporting, and sustainability-related reporting.

This year, we continued our approach of a combination of in-person and virtual Committee meetings and interactions with colleagues from across the organisation. Of particular note this year were the Committee's in-person visits to AstraZeneca's manufacturing site in Speke, UK, and to the AstraZeneca and Alexion UK marketing companies. I also made in-person visits to the marketing companies in India and the Gulf Cooperation Cluster (GCC) in Dubai and a visit to the Global Innovation and Technology Centre in Chennai, India. These interactions, along with the in-depth sessions I refer to above, have allowed Committee members to maximise our engagement with colleagues across the business, deepen our understanding of the priorities and challenges facing many different markets and business areas, and hear a wide range of employees' views directly.

We hope you find the Committee's Report useful and informative, and, as ever, I welcome any feedback.

Philip Broadley
Chair of the Audit Committee

The full role of the Audit Committee is set out in its terms of reference, available at www.astrazeneca.com.

[1] Routine attendees at Committee meetings include: the CFO; the Chief Human Resources Officer; Chief Compliance Officer and General Counsel; the VP, Ethics & Transparency and Deputy Chief Compliance Officer; the Deputy General Counsel, BioPharmaceuticals; the VP, Group Internal Audit; the SVP Finance, Group Controller & Head of Global Finance Services; and the Company's external auditor. The Committee, and separately the Committee Chair, also meet privately and on an individual basis with attendees which helps ensure the effective flow of material information between the Committee and management. The CEO and other members of the SET attend when required by the Committee.

Committee overview

Committee composition

In December 2023, the Board determined the Committee met the UK, US and Swedish composition requirements by virtue of Philip Broadley and Anna Manz having recent and relevant financial experience for the purpose of the UK Corporate Governance Code (the Code), having competence in accounting and/or auditing for the purpose of the Disclosure and Transparency Rules, being financial experts for the purposes of the Sarbanes-Oxley Act, and having expertise in accounting and auditing for the purposes of the Swedish Corporate Governance Code and Swedish Companies Act. The Board determined that all members of the Committee are independent for the purposes of the Code and that the Committee members as a whole have competence relevant to the sector in which the Company operates, by virtue of their experience of working in science-driven, healthcare and/or pharmaceutical industries, or as a result of their tenure with AstraZeneca. The Committee members' qualifications, skills and experience are detailed in their biographies on pages 78 and 79 and meeting attendance is shown on page 77.

Role of the Committee

The Committee's main responsibilities include monitoring the integrity of financial reporting and formal announcements relating to financial performance, reviewing the effectiveness of internal controls and risk management systems, and overseeing the external and internal audit processes. The Committee reports to the Board the principal matters it considers and any significant concerns it has or that have been reported to it. Further information about the Committee's role and work during the year is set out in this Audit Committee Report.

Activities during the year

Financial reporting

Effective internal controls, appropriate accounting practices and policies, and the exercise of experienced judgement by the Committee and the Board underpin AstraZeneca's financial reporting integrity.

The Committee's activities in this area in 2023 included:

- Reviewing key elements of the Financial Statements and the estimates and judgements contained in the Group's financial disclosures, as well as considering the appropriateness of management's and the external auditor's analysis and conclusions on judgemental accounting matters. The significant financial reporting issues considered are described in detail in the table from page 98. Further information on the significant accounting matters considered is included in the Financial Review under Critical accounting policies and estimates from page 72 and within our Group Accounting Policies from page 152.
- Considering the completeness and accuracy of the Group's reported financial performance against its internal and external key performance indicators.
- Reviewing the preparation of the Directors' Viability statement and considering the adequacy of the analysis supporting the assurance provided by that statement, as well as the going concern assessment and adoption of the going concern basis in preparing this Annual Report and the Financial Statements.
- Reviewing quarterly updates from both management and PwC on the programme of activities relating to control over financial reporting and the effectiveness of testing that has been performed across the internal control environment.
- Considering the external auditor's reports on its audit of the Group Financial Statements, as well as reports from management, Group Internal Audit (GIA), Global Compliance and the external auditor on the effectiveness of our system of internal controls and, in particular, our internal control over financial reporting. This included consideration of compliance with applicable provisions of the Sarbanes-Oxley Act – in particular, the status of compliance with the programme of internal controls over financial reporting implemented pursuant to section 404 of that Act.
- Discussing financial reporting considerations in relation to significant transactions that occurred in the year, the valuation and presentation of the defined benefit pension arrangements, impairment of intangible assets, restructuring programmes and the presentation of collaboration and alliance revenues. The Committee also reviewed developments in sustainability reporting requirements and the Company's activities, governance frameworks and approach in compliance with enacted and emerging regulations in relation to sustainability.

Risk identification and management

The Committee continued its regular reviews of the Group's approach to risk management, the operation of its risk reporting framework and risk mitigation. This included consideration of the manner in which the risk management process was embedded in the Group such that the Committee could be assured that management's accountability for risks was clear and functioning effectively.

The Company's risk framework, described further from page 54, provides the context for the Committee to consider the Directors' Viability statement which is underpinned by the assurance provided through a 'stress test' analysis under which key profitability, liquidity and funding metrics are tested against severe downside scenarios.

Each of these scenarios assumes that the associated risks crystallise and that management will take mitigating actions against those risks. The Committee considered in detail the validity of each scenario. This included obtaining additional analysis from management as to the indirect or unintended consequences of its proposed mitigating actions including, for example, assessing the likely response of a broader range of stakeholders. The Committee also assessed whether the proposed mitigations were viable.

The Committee is updated on key active and emerging risks facing the Company through a quarterly risk management report from the CFO. The likelihood of each of the risks materialising and its potential impact was monitored by the Committee and the reports from the CFO enabled the Committee to track the trend applicable to each risk compared to the previous quarter. The composition and profile of these risks informs the Committee's agenda of in-depth sessions. For example, an upward trend, in terms of the likelihood and potential impact of the risk, was noted for the key active risk relating to IT, cyber risk and data security, therefore the Committee spent additional time with representatives from the IT function to understand those risks and the actions being undertaken to mitigate them.

More information on the basis of preparation of Financial Statements on a going concern basis is set out on page 227 and in the Financial Statements on page 152.

Further information on the significant financial reporting issues considered is set out in the table from page 98.

Further information about the Principal Risks faced by the Group and the Viability statement is set out in Risk Overview from page 54.

Audit Committee Report *continued*

Cyber risk, digital security and information governance

Our approach to identifying, assessing and managing material cybersecurity risks (including those that result from the use of third parties in business processes and data management) is integrated within our Group-wide approach to managing risk. Failure in information technology or cybersecurity has been identified as a Principal Risk. Mitigations are in place to manage these risks, and these are monitored, and their effectiveness regularly reported, for example in KPI dashboards provided to management and the Committee. Incidents are managed and reported using the cybersecurity incident management framework which in turn is connected to the Group's crisis management framework. Cybersecurity risks are overseen by the Committee, who perform an in-depth review annually. Their reviews are supported by senior management, the VP, Group Internal Audit (GIA) and other assurance or providers as required. Cybersecurity risks (including previous incidents) have not materially affected our business strategy, results of operations or financial condition.

Sustainability reporting and climate-related risk

The Committee is responsible for overseeing sustainability-related disclosures that are linked to the Financial Statements, which includes the TCFD Summary Statement and the EU Taxonomy disclosures in this Annual Report and the extended TCFD Statement published separately. These statements are also reviewed by the Sustainability Committee, to support the Committee's review.

The Committee received updates in the current year regarding the proposed and/or enacted regulations by the US, EU, UK and the International Sustainability Standards Board (ISSB) on sustainability reporting, as well as the ongoing assessment of potential double materiality topics for the Company under EU regulations.

Legal and Compliance

The Committee's activities in this area included reviewing:

- Quarterly reports from the Legal function to monitor the status of significant litigation matters and governmental investigations.
- Quarterly reports from Global Compliance to provide oversight of key compliance incidents (both substantiated and unsubstantiated), possible trends and the dispersion of incidents across our business functions and management hierarchy. The reports included corrective actions taken so that the Committee could assess the effectiveness of controls, and monitor and ensure timely remediation.
- Reporting on compliance with AstraZeneca's Code of Ethics to ensure high ethical standards and that AstraZeneca operates within the law in all countries where we operate.
- The monitoring, review, education and improvements made to support assurance that the risk of modern slavery and human trafficking is eliminated, to the fullest extent possible, from AstraZeneca's supply chain.

Internal Audit

The Committee reviewed GIA's activities, including:

- Reviewing quarterly reports of work carried out by GIA, including the status of follow-up actions with management. In 2023, GIA provided assurance over compliance with significant policies, plans, procedures, laws and regulations, as well as risk-based audits across a broad range of key business activities and continued its thematic reporting to the business. The 2023 audit plan was aligned to our key active risks and wider risk taxonomy. Separate meetings are arranged to discuss follow-up actions in more depth with specific teams, when required by the Committee.
- Carrying out the annual effectiveness review of GIA in late 2023 by considering its performance against the internal audit plan and key activities.
- Approving the 2024 internal audit plan, which is aligned to our key active risks and wider risk taxonomy.
- Considering the geographic presence, reach and capabilities of GIA and the appropriateness of the Group's resource allocation for this vital assurance function.

The Committee noted the continued contributions of GIA in supporting and delivering value to the business and the Committee during the year. The Committee supports GIA's continued efforts to deploy its resources in line with the shape and size of the overall organisation and was satisfied with the quality, experience and expertise of the GIA function.

An independent External Quality Assessment of GIA is performed every five years and was last performed in 2021.

External audit

The Company's external auditor, PwC, provided quarterly reports to the Committee over key audit and accounting matters, and business processes, internal controls and IT systems.

The Committee oversaw the conduct, performance and quality of the external audit, in particular through its review and challenge of the coverage of the external auditor's audit plan and subsequent monitoring of progress against it. The Committee maintained regular contact with PwC through formal and informal reporting and discussion throughout the year, with a continued focus on maintaining audit efficiency and quality. The Committee also sought management's feedback on the conduct of the audit and considered the level of and extent to which the auditors challenged management's assumptions. The Committee also received a formal letter and report from the Financial Reporting Council (FRC) following the joint FRC and Public Company Accounting Oversight Board (PCAOB) inspection of PwC's 2022 audit of AstraZeneca. The FRC's inspection was rated as "Good" (the highest rating possible) and there were no 'Key' or 'Other' findings. The FRC also recognised a number of areas of good practice in relation to the conduct of the audit.

A number of interactions took place between Committee members and PwC during the year, outside of formal Committee meetings, to enhance the Committee's understanding of the audit process including the Committee Chair joining PwC's Account Planning Workshop to meet face-to-face with PwC team members responsible for auditing AstraZeneca's global entities.

For further information, see IT and IS resources on page 41.

For more information on our Code of Ethics, see page 49, and on Anti-bribery and anti-corruption, see page 39.

AstraZeneca's Modern Slavery Act Statement is available on our website, www.astrazeneca.com.

The Committee reviewed audit and non-audit fees of the external auditor during the year, including the objectivity and independence of the external auditor through the application of the Audit and Audit-Related Services Approval Policy, as described further on page 100.

Engagement with employees and other stakeholders

The Committee regularly interacts with members of management below the SET and seeks wider engagement with the Group's employees and other stakeholders, during deep dive sessions at formal Committee meetings and as separate engagements.

Committee members undertook a mixture of in-person and virtual interactions with a wide range of teams from across the organisation, including: Information Technology and Information Security; Operations and Procurement; Human Resources; Global Business Services; the AstraZeneca and Alexion marketing companies in the UK; the Speke, UK manufacturing site; and the marketing companies for the GCC and India.

The breadth of these interactions is crucial as it enhances the Committee's understanding of the business and provides valuable insights into the key issues and challenges relating to, and current and emerging risks associated with, our activities in these areas. The Committee welcomes the opportunity to engage directly with employees in these meetings which provide an opportunity to gauge employee sentiment and hear their views directly. The Committee also uses these interactions to communicate the importance it attaches to compliance and our 'Speak Up' culture.

Reporting and regulatory environment

The Committee has kept abreast of developments in the reporting and regulatory environment. This has included consideration of the proposed governance and audit reforms in the UK, SEC updates on clawbacks and non-GAAP reporting, consultations on sustainability-related reporting requirements in a number of jurisdictions, and requirements to disclose further information about diversity and inclusion on company boards in the UK from 2023.

The Committee was also briefed on thematic reviews published by the FRC during the year, including those on fair-value-measurement and climate-related metrics and targets.

Ensuring the quality of external financial reporting to shareholders and other stakeholders remains paramount to the Committee. This includes its assessment of the annual reports to ensure that, taken as a whole, they are fair, balanced and understandable (for which the process is described on page 100). External validation of the Annual Report is an important indicator of the quality of our reporting. The Committee was pleased with the feedback from the FRC that it received in 2023 on the 2022 Annual Report:

- The FRC undertook a routine corporate reporting review of the 2022 Annual Report and did not raise any questions or queries that required further correspondence, which the Committee consider a reflection of the quality financial reporting and compliance undertaken by AstraZeneca. The FRC highlighted some areas where reporting could be further enhanced which management and the Committee have considered in preparing this Annual Report.
- The FRC also reviewed our reporting in the context of the 2018 UK Corporate Governance Code and raised no significant points in this respect.
- In the FRC's 2022/2023 Annual Review of Corporate Governance Reporting, the FRC highlighted the following aspects of the 2022 Annual Report as examples of best practice: (i) how the impact of AstraZeneca's learning culture contributed positively to retention and promotion rates and more accurate succession planning; and (ii) how AstraZeneca's strategy and KPIs in relation to scientific measures are linked to remuneration.
- The FRC Lab's report on business model-focused reporting highlighted our 'Life-cycle of a medicine' text and diagram in the 2022 Annual Report (an updated version of which appears on page 11 of this Annual Report) as a best practice example of how an issuer can better meet investor needs, particularly for a reader who is not a pharmaceutical expert.

Committee performance

The Committee conducted the annual evaluation of its own performance, referring to the Committee-specific results of a Board performance review survey prepared by the Company Secretary's team. The results were reported to and discussed with the Committee and the Board. The overall results of the survey were positive and noted the Committee's efforts and focus.

Further information about the audit and non-audit fees for 2023 is disclosed in Note 31 to the Financial Statements on page 210.

Audit Committee Report *continued*

Significant financial reporting issues considered by the Committee in 2023

Matter considered		Committee's conclusion and response
Valuation of intangible assets See Financial Review from page 58 and Note 10 to the Financial Statements from page 172.	The Group carries significant intangible assets on its Consolidated Statement of Financial Position arising from the acquisition of businesses and intellectual property (IP) rights to medicines in development and on the market. Each quarter, the CFO reports on the carrying value of the Group's intangible assets as well as the specific assets identified as at risk of impairment. In respect of intangible assets that are identified as at risk of impairment, the Committee receives information on the difference between the carrying value and management's current estimate of discounted future cash flows for these products (the headroom). Products will be identified as 'at risk' because the headroom is small or, for medicines in development, there is a significant potentially adverse event such as the publication of clinical trial results which could significantly alter management's forecasts for the product. The reviews also cover the impact on any related contingent consideration arising from previous business combinations.	The Committee considered the impairment reviews of the Group's intangible assets. Impairments of $17 million arose in relation to launched products, and $417 million arose in relation to products in development. The Committee assured itself of the integrity of the Group's accounting policy and models for its assessment and valuation of its intangible assets, including understanding the key assumptions and sensitivities within those models. The Committee also considered the internal and external estimates and forecasts for the Group's cost of capital relative to the broader industry. The Committee was satisfied that the Group had appropriately accounted for the identified impairments.
Revenue recognition See Financial Review from page 58 and Note 1 to the Financial Statements from page 160.	The US is our largest single market and accounted for 42% of our Total Revenue in 2023. Revenue recognition, particularly in the US, is affected by rebates, chargebacks, returns, other revenue accruals and cash discounts. In 2023, a new category of revenue termed Alliance Revenue was included on the face of the Statement of Comprehensive Income, and comparative information re-presented. Alliance Revenue includes profit shares, revenue shares or royalties from defined collaborative arrangements, and was previously a sub-category of Collaboration Revenue.	The Committee pays attention to management's estimates of these items, its analysis of any unusual movements and their impact on revenue recognition. The Committee receives regular reports from management and the external auditor on this complex area. The US market remains highly competitive with diverse marketing and pricing strategies adopted by the Group and its peers. The Committee recognised the close monitoring and control by management of the overall gross-to-net deductions. The Committee was consulted on the proposed update to presentation of Alliance and Collaboration Revenues, and aligned on the usefulness of enhanced disclosures of Alliance Revenues for better visibility and reflect differences in revenue profiles for Alliance and Collaboration Revenues. The Committee also discussed the accounting considerations for key milestones in Collaboration Revenue.
Alternative performance measures (APMs) See Financial Review from page 58.	AstraZeneca reports APMs to provide helpful supplementary information to the IFRS measures to enable a better understanding of the Group's financial performance and position. Accounting for the acquisition of Alexion in 2021 resulted in more significant items being classified as non-core, which continue impacting performance in the current year, especially relating to the unwind of fair value uplift of inventory and amortisation of allocated fair value of purchased intangible assets. The fair value uplift of inventory was fully unwound in the year, hence the amortisation of intangibles will remain the material non-core item from the acquisition transaction. There were some significant one-off legal settlements in the year which were classified as non-core items in line with the Group's policy. Management carefully analyses the presentation of various items to ensure it is fair and balanced, and follows guidelines issued by the European Securities and Markets Authority and the SEC, as well as FRC thematic reviews.	The Committee carefully considered management's presentation of the non-core items and noted that the presentation was consistent with prior years for the items. The Committee further considered management's assessment and recommendation to present the $1,020 million legal provision costs as non-core items, and concurred with management that the presentation was appropriate due to their significance and consistent with classification in prior years. The Committee reviewed proposed disclosures for non-GAAP items in line with the various regulatory guidance and concurred with management that the presentation enabled additional helpful guidance.
Litigation and contingent liabilities See Note 30 to the Financial Statements from page 204.	AstraZeneca is involved in various legal proceedings considered typical to its business and the pharmaceutical industry as a whole, including litigation and investigations relating to product liability, commercial disputes, infringement of IP rights, the validity of certain patents, antitrust law, and sales and marketing practices. In the current period, net legal provisions of $1,020 million were recorded for three legal proceedings within non-core items once the criteria for recognising a provision were met.	Of the matters the Committee considered in 2023 the more significant included: the settlements in the *Nexium* and *Prilosec* product liability litigation, the *Imfinzi* patent litigation and the Alexion shareholder litigation. The Committee carefully considered the timing of recognition and presentation of these provisions and concurred with management's assessment. The Committee was also satisfied that the Group was effectively managing its litigation risks including seeking appropriate remedies and continuing to defend its IP rights vigorously.

Significant financial reporting issues considered by the Committee in 2023 *continued*

Matter considered		Committee's conclusion and response
Tax charges and liabilities See Note 4 to the Financial Statements from page 164. AstraZeneca's Approach to Taxation, which was published in December 2022 and covers its approach to governance, risk management and compliance, tax planning, dealing with tax authorities and the level of tax risk the Group is prepared to accept, can be found on our website, www.astrazeneca.com.	The Group has business activities around the world and incurs a substantial amount and variety of business taxes. AstraZeneca pays corporate income taxes, customs duties, excise taxes, stamp duties, employment and many other business taxes in all jurisdictions where due. In addition, we collect and pay employee taxes and indirect taxes such as value-added tax. The taxes the Group pays and collects represent a significant contribution to the countries and societies in which we operate. Tax risk can arise from unclear laws and regulations as well as differences in their interpretation.	The Committee reviews the Group's approach to tax, including governance, risk management and compliance, tax planning, dealings with tax authorities and the level of tax risk the Group is prepared to accept. During 2023, the Committee considered the tax accounting implications of a UK Group company's intragroup purchase of certain intellectual property as well as developments in certain uncertain tax positions in the year. The Committee considered the analysis provided by management and concurred with the presentation and reporting of these items. The Committee was satisfied with the Group's practices regarding tax liabilities, including, most notably, its response to developments in the corporate income tax environment.
Segmental reporting See the Key Judgement within Note 6 to the Financial Statements from page 167.	Management has reviewed the developments in the year and determined the Group continues to operate as a single segment based on key decisions on resource allocation and performance monitoring being carried out at a Group level by the SET. There were no significant changes in the Group's business during the year, with the Alexion integration continuing as envisioned.	The Committee received reports from management regarding considerations for segmental reporting based on the current operations and management of the business. The Committee considered the analysis provided by management and concurred with management that presenting AstraZeneca's performance under one segment was appropriate.
Retirement benefits See Financial Review from page 58 and Note 22 to the Financial Statements from page 183.	Accounting for defined benefit pension and other post-retirement benefits remains an important area of focus. The present value of these liabilities is sensitive to changes in long-term interest rates, future inflation and mortality expectations. The assumptions used to value the liabilities for the Group's main post-retirement benefit obligations are updated every quarter along with asset valuations. The Group is cognisant of the wider regulatory environment and local requirements around funding levels and contributions. In May 2023, the triennial actuarial valuation as at 31 March 2022 for the UK defined benefit pension scheme was agreed with AstraZeneca Pensions Trustee Limited (the Trustee of the UK pension scheme) and submitted to the Pensions Regulator. In December 2023, the Group enacted a charge over the Company's Cambridge Biomedical Campus site, to provide long-term security to the AstraZeneca Pension Fund. Guaranteed Minimum Pensions (GMP) equalisation is now largely complete and most UK retirees were offered flexibility to reshape their benefit through a Pension Increase Exchange option. In May 2023, the Group executed a buy-out of its qualified US Defined Benefit Pension Plan with an external insurer. All Plan liabilities have been discharged and the Plan has been wound-up.	The Committee was satisfied that the Group's contribution policy and actuarial assumptions used to value liabilities were appropriate during the year. The Committee monitors the funding level of the Group's defined benefit obligations on a quarterly basis, alongside key developments. The Committee also received a separate update from the Global Pensions team covering key activities over the year. The Committee was reassured by the Group's engaged and balanced approach to managing the risks associated with its defined benefit obligations, noting the completion of the actuarial valuation ahead of the statutory deadline. The Committee reviewed and concurred with management's accounting and presentation of pension balances. The Committee is cognisant of the need to adhere to local funding regulations and noted the security provided by the Group, which underwrites obligations to members. The Committee was satisfied with the progress made on GMP equalisation, noting the additional flexibility offered. The Committee was satisfied with the process and outcome of the US buy-out, noting that it reduces long-term financial risk to the Group and provides security to participants.

Audit Committee Report *continued*

Fair, balanced and understandable assessment

As in previous years, at the instruction of the Board, the Committee undertook an assessment of this Annual Report to ensure that, taken as a whole, it is fair, balanced and understandable and provides the information necessary for shareholders to assess the Company's position and performance, business model and strategy. The Committee reviewed the Company's governance structure and assurance mechanisms for the preparation of this Annual Report and, in particular, the contributor and SET member verification process. The Committee received an early draft of this Annual Report to review its proposed content and the structural changes from the prior year and to undertake a review of the reporting for the year, following which the Committee members provided their individual and collective feedback. In addition, in accordance with its terms of reference, the Committee (alongside the Board) took an active part in reviewing the Company's quarterly announcements and considered the Company's other public disclosures which are managed through its Disclosure Committee (the Committee was updated on matters considered by the Disclosure Committee regularly throughout the year). To aid its review further, the Committee also received a summary of the final Annual Report's content, including AstraZeneca's successes and setbacks during the year and an indication of where they were disclosed within the document.

The processes described above allowed the Committee to provide assurance to the Board to assist it in making the statement required of it under the Code, which is set out from page 81.

Internal controls

Information on the Company's internal controls is included in the Audit, risk and internal control section in the Corporate Governance Report on page 82. During the period covered by this Annual Report there was no change in our internal control over financial reporting that occurred that has materially affected, or is reasonably likely to materially affect, our internal control over financial reporting.

At the January 2024 Committee meeting, the CFO presented the conclusions of the evaluation by the CEO and CFO of the effectiveness of our disclosure controls and procedures that is required by Item 15(a) of Form 20-F as at 31 December 2023. Based on their evaluation, the CEO and the CFO concluded that, as at that date, the Company maintained an effective system of disclosure controls and procedures.

External auditor

PwC is the Company's external auditor. In April 2023, PwC was reappointed as the Company's auditor for the financial year ended 31 December 2023, its seventh consecutive year as auditor, having first been appointed for the financial year ended 31 December 2017, following a competitive tender carried out in 2015. Sarah Quinn continued as the lead audit partner at PwC for 2023 following her appointment in January 2022.

Audit, audit-related and other assurance services provided by the external auditor

The Committee maintains the Audit and Audit-Related Services Approval Policy (the Policy) for the pre-approval of all audit services, audit-related services and other assurance services undertaken by the external auditor. The principal purpose of the Policy is to ensure that the independence of the external auditor is not impaired.

The pre-approval procedures permit certain audit and audit-related services to be performed by the external auditor, subject to annual fee limits agreed with the Committee in advance. Pre-approved audit and audit-related services below the clearly trivial threshold (within the overall annual fee limit) are subject to case-by-case approval by the SVP Finance, Group Controller & Head of Global Finance Services.

Pre-approved audit services included services in respect of the annual financial statement audit (including quarterly and half-year reviews), attestation opinion under section 404 of the Sarbanes-Oxley Act, statutory audits for subsidiary entities, and other procedures to be performed by the independent auditor in order to form an opinion on the Group's Consolidated Financial Statements. The pre-approved audit-related services, which the Committee believes are services reasonably related to the performance of the audit or review of the Company's Financial Statements, included certain services required by law or regulation, such as financial statement audits of employee benefit plans and capital market transactions. The Policy prohibits any tax services. Audit-related services included the assurance in relation to tax regulatory certificates required to be issued by the external auditor.

The CFO (supported by the SVP Finance, Group Controller & Head of Global Finance Services), monitors the status of all services being provided by the external auditor. Authority to approve work exceeding the pre-agreed annual fee limits and for any individual service above the clearly trivial threshold is delegated to the Chair of the Committee together with one other Committee member in the first instance. A standing agenda item at Committee meetings covers the operation of the pre-approval procedures and regular reports are provided to the full Committee.

All services other than the pre-approved audit and audit-related services, require approval by the Committee on a case-by-case basis. In 2023, PwC provided audit services including interim reviews of the results of the Group for the period ended 30 June 2023 and audit-related and other assurance services.

The increase to the statutory audit fee for 2023 is largely driven by inflationary increases.

Fees for audit-related and other assurance services amounted to 6% of the fees payable to PwC for audit services in 2023 (2022: 4%). The Committee is mindful of the 70% non-audit services fee cap under EU regulation, together with the overall proportion of fees for audit and audit-related services in determining whether to pre-approve such services. Fees for audit-related and other assurance services payable to PwC in 2023 were 7% (2022: 6%) of average audit fees over 2020 to 2022 (2022: 2019 to 2021).

PwC were better placed than any alternative provider to provide these services in terms of their familiarity with the Company's business, skills, capability and efficiency with which they could deliver the relevant services. All such services were either within the scope of the pre-approved services set out in the Policy or were presented to Committee members for pre-approval and all such services were permitted by the FRC Ethical Standard.

Audit/audit-related and other assurance services

Statutory audit fee
Audit-related and other assurance services

Assessing external audit effectiveness

In accordance with its normal practice, the Committee considered the performance of PwC and its compliance with the independence criteria under the relevant statutory, regulatory and ethical standards applicable to auditors. The Committee assessed PwC's effectiveness principally against four key factors, namely: judgement; mindset and culture; skills, character and knowledge; and quality control. As part of that assessment, it also took account of the views of senior management within the Finance function and regular Committee attendees.

As part of the Committee's assessment of the quality of the audit, the Committee focused on the auditor's effective use of experts and technology as well as appropriate challenge of management's judgements especially in relation to areas of significant financial reporting issues (as described in the table from page 98). Areas that were reviewed by the Committee included PwC's extensive and detailed review of the valuations and assumptions related to defined benefit pension valuations and the UK group company intragroup purchase of certain IP, assumptions and calculations over Gross to Net Product Sales, legal settlements in the year, intangible asset assumptions used in cashflow modelling, and the recognition and measurement of uncertain tax liabilities.

The Committee concluded that the PwC audit was effective for the financial year ended 31 December 2023. In February 2024, the Committee recommended to the Board the reappointment of PwC as the Company's auditor for the financial year ending 31 December 2024. Accordingly, a resolution to reappoint PwC as auditor will be put to shareholders at the Company's AGM in April 2024.

In order to comply with UK legal requirements regarding the auditor's tenure and audit tendering, the external audit must be put out to tender before the 2027 financial year. In late 2023, the Committee decided to commence the tender process for the audit mandate for the 2027 financial year. This will ensure sufficient time to carry out the process and, in the event that a new auditor is appointed, clear any conflicts and ensure a new auditor builds up the necessary knowledge and business familiarity to ensure the delivery of an effective audit. PwC is eligible to re-tender for the audit and has indicated its willingness to be one of the firms included in the tender. The Committee will lead the tender process and has approved an inclusive, competitive and transparent process by which the tender will be conducted to determine a high-quality audit delivery provider.

Regulation

The Committee considers that the Company has complied with the Competition and Markets Authority's Statutory Audit Services for Large Companies Market Investigation (Mandatory Use of Competitive Tender Processes and Audit Committee Responsibilities) Order 2014 in respect of its financial year commencing 1 January 2023.

Directors' Remuneration Report

"With the approval of three new medicines, over 30 Phase III clinical trials under way and industry-leading revenue growth in 2023, it is clear that AstraZeneca's remarkable performance trajectory is set to continue to deliver value to shareholders in the years to come."

Remuneration Committee members

> Sheri McCoy (Chair)
> Philip Broadley
> Michel Demaré
> Leif Johansson[1]
> Nazneen Rahman[2]

[1] Retired from the Board on 27 April 2023.
[2] Appointed as a member of the Committee on 1 May 2023.

We have sought to be clear and transparent in how we link remuneration of our executives to the successful delivery of our strategy and shareholder returns.

On behalf of the Board, I am pleased to present AstraZeneca's Directors' Remuneration Report for the year ended 31 December 2023.

At the beginning of the year, we announced the launch of our inspiring new 2030 Bold Ambition. Since launch, significant progress has already been made towards delivering on our stretching target of 15 new medicines by 2030, including the approvals of *Truqap, Wainua* and *Airsupra*. With strong revenue growth in 2023 and over 30 Phase III clinical trials underway (10 of these expected to have blockbuster potential), it is clear that AstraZeneca's remarkable performance trajectory is set to continue to deliver value to shareholders in the years to come.

Key Committee activities in 2023

The Committee was pleased to have received a high degree of support for the 2022 Directors' Remuneration Report, with a 94% vote in favour at the Company's 2023 AGM.

An important area of focus for the Committee this year has been reviewing the current Directors' Remuneration Policy (the Policy), which is required to be put to shareholders at the 2024 AGM.

In the period since our Policy was last approved in 2021, we are proud that AstraZeneca has continued to grow and prosper under our CEO's leadership – delivering excellent returns for shareholders, and consistently positioned first or second in the FTSE 100, materially larger in size than other UK listed companies. As a major global organisation, operating within the highly competitive global pharmaceuticals sector, the Committee is very aware of the challenges of providing competitive executive remuneration which balances the genuine pay pressures from a talent market heavily influenced by US practice, and the expectations of UK investors and the corporate governance environment.

During 2023, I spent time meeting with investors who hold over 50% of the Company's issued share capital to discuss the Committee's proposals for the 2024 Policy. The valuable feedback received was discussed with the Committee, and was factored into the Committee's consideration of both executive remuneration in 2024 and the Policy which will be put to shareholders for approval at the 2024 AGM. The new proposals are summarised later in this letter, and our new Policy can be found from page 127.

AstraZeneca has a well-established high performance culture, and we are committed to delivering and rewarding excellent performance. Over the year, the Committee has worked closely with its independent advisor and the Audit, Science and Sustainability Committees to ensure that the financial, science and ESG measures in our incentive plans are appropriate, suitably stretching and accurately assessed in order to enable the Company to achieve the 2030 Bold Ambition and Growth Through Innovation strategy.

In addition to overseeing the reward arrangements in relation to our Senior Executive Team (SET), including those for the appointment of Sharon Barr as EVP, BioPharmaceuticals R&D, we continue to look further into total reward of the wider workforce and are supportive of the Company's efforts to ensure reward decisions are equitable by career level, geography and gender. The Committee is pleased that 35% of the employee population are eligible to participate in AstraZeneca share plans so that employees can share in the Company's performance and align with the experience of shareholders. We are proud that AstraZeneca remains committed to paying a living wage for all employees globally.

The Directors' Remuneration Report contains the following sections:

> Chair's letter, page 102
> Remuneration at a glance, page 106
> How our performance measures for 2024 support the delivery of our strategy, page 107
> How the Remuneration Committee ensures targets are stretching, page 108
> Annual Report on Remuneration, page 109
> Directors' Remuneration Policy, page 127

The role of the Remuneration Committee is set out in its terms of reference, available at www.astrazeneca.com.

AstraZeneca's 2023 performance

Science and Innovation: 2023 saw another year of exceptional performance as we continued to expand and rapidly advance our high-quality portfolio. The scientific progress is essential for our patients who stand to benefit from our medicines and we are delighted that not only did we deliver 30 pipeline progression events, either NME Phase II starts or Phase III investment decisions, but we were also able to exceed our goal for regulatory events by delivering 46 over the year. AstraZeneca also continued to invest for the future and build our scientific leadership, with highlights including the agreement with Quell Therapeutics and proposed acquisition of Gracell Biotechnologies to advance cell therapies across oncology and autoimmune diseases and the new licensing agreement with Eccogene for a novel once daily oral GLP-1RA, adding an exciting early asset with potential as a next-generation treatment for cardiometabolic diseases, diabetes and obesity to the CVRM portfolio.

Growth and Therapy Area Leadership: In 2023, the commercial and regulatory teams have made great progress driving a 3% (constant exchange rate (CER): 6%) growth in Total Revenue, despite a decline of $3,736 million from COVID-19 medicines. Excluding COVID-19 medicines, Total Revenue increased by 13% (CER: 15%). Oncology Total Revenue increased by 19% (CER: 21%) to $18,447 million following approvals of *Imfinzi* for biliary tract cancer and *Imfinzi* plus *Imjudo* for liver and lung cancers. *Tagrisso*, *Imfinzi*, *Lynparza* and *Calquence* were once again all stand out performers. Within BioPharmaceuticals, there was strong growth in all non-COVID-19 therapy areas. CVRM Total Revenue was up 15% (CER: 18%) to $10,628 million driven by *Forxiga*, *Lokelma*, roxadustat and *Andexxa*. Respiratory & Immunology Total Revenue was $6,404 million, an increase of 7% (CER: 10%). Rare Disease Total Revenue grew by 10% (CER: 12%) to $7,764 million, largely driven by *Ultomiris* (up 51% (CER: 52%)), along with marked contribution from *Strensiq*, *Koselugo* and *Kanuma* as they expand into new markets.

People and Sustainability: We continue to strive to be a great place to work. We have continued to invest in developing our leaders and nurturing a culture of lifelong learning. In 2023, over 11,000 employees have participated in an immersive development experience and over 1.2 million self-guided learning modules have been completed in our learning platform Degreed. Inclusion and diversity remains an important priority; in 2023 the Company has focused on embedding equity into our talent processes, building inclusive leadership capabilities and engaging our global workforce through quarterly Power of Diversity programming, such as our spotlight on building cultural intelligence. We have continued to make progress to increase the percentage of women at senior levels, advancing to 50.1%, and have strong cultural diversity in our executive cohort, with 40 countries of origin represented in executive levels.

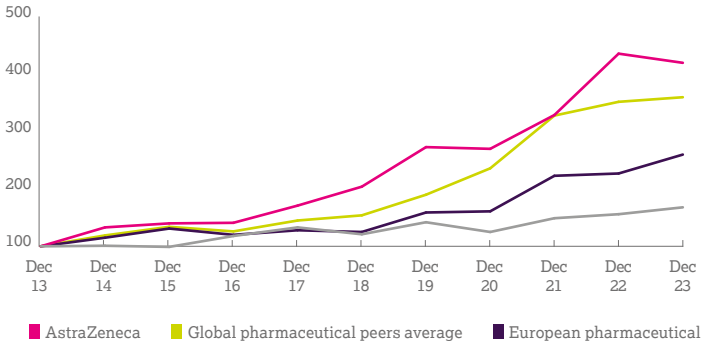
Sustainability is increasingly embedded into everything we do. The expansion of AZ Forest, raising our commitment to plant and ensure the long-term survival of over 200 million trees by 2030, will contribute to Ambition Zero Carbon and remove around 30 million tonnes of carbon dioxide from the atmosphere. Our ground-breaking partnership to deliver renewable natural gas to our US research and manufacturing sites will provide a source of clean heat which will contribute to our science-based target of reducing Scope 1 and 2 emissions (operations and fleet) by 98% by 2026, whilst also contributing to the circular economy. We celebrated AstraZeneca being ranked number 1 among pharmaceutical companies for climate action in a new STAT Report, and we were proud of our strong presence at Climate Week and the UN General Assembly as we continued to drive change at scale.

How we have performed in 2023

Total shareholder return (TSR)

2021 to 2023[1]

+40%



[1] Calculated using a three-month calendar average, from 1 October to 31 December, prior to the start and at the end of the relevant period.

Delivery against strategy – 2023 Group scorecard performance[2]

	Target	2023 outcome
Science and Innovation: Annual pipeline progression		
Pipeline progression events	25	**30**
Regulatory events	35	**46**
Growth and Therapy Area Leadership		
Total Revenue	$43.9bn	**$44.8bn**
Achieve Group Financial Targets		
Cash flow	$9.3bn	**$9.5bn**
Core EPS	$6.89	**$7.13**

[2] For details of the Committee's consideration of Group scorecard outcomes and a description of performance measures, see from page 111.

2023 remuneration outcome

The Committee always seeks to ensure that the remuneration of our Executive Directors and our wider workforce reflects the underlying performance of the business. When approving outcomes, we therefore considered the Group scorecard along with wider business and individual performance over 2023, including other achievements across the enterprise, such as advancing our People and Sustainability priorities. In that context, the Committee believes that the payments outlined below fairly reflect their performance.

Annual bonus – 79.5% of maximum

When determining bonus outturns, the Committee considered the formulaic outcome from the Group scorecard along with wider business and individual impact and performance in 2023, including ESG achievements. The Committee determined to award an annual bonus equivalent to 79.5% of maximum to Mr Soriot and Dr Sarin (equivalent to 198.75% and 159% of base pay respectively), in line with the Group scorecard outcome. Details of the factors considered to determine the bonuses are provided from page 111.

More information on the TSR peer groups for PSP awards can be found on page 115.

Further detail of 2023 commercial and scientific performance can be found in the Strategic Report from page 12.

One half of each Executive Director's bonus for 2023 will be deferred into AstraZeneca shares for three years to ensure further alignment with shareholder interests.

Long-term incentives (LTIs)

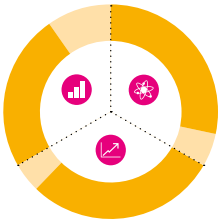
2021 PSP – 88% of maximum

Our approach aims to reward sustainable outperformance and as a result of three very strong years, our 2021 award will vest towards the upper end of the possible range. The three-year performance period for Performance Share Plan (PSP) awards granted to our senior leaders in 2021, ended on 31 December 2023. Awards for all participants will vest at 88% of maximum, as shown on page 115 and reflects strong performance across all measures, as well as delivering a three-year TSR of 40%.

Policy review and remuneration in 2024

The Policy is due for renewal and we will be seeking shareholder approval for a new version of the Policy at the Company's AGM on 11 April 2024. The new Policy is intended to remain in effect for three years from the date of the AGM.

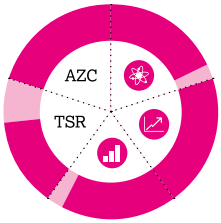
2023 Annual bonus scorecard performance[1]



	Achieved
Science and Innovation: Annual pipeline progression	85%
Growth and Therapy Area Leadership	87%
Achieve Group Financial Targets	71%

Achieved

2021 PSP performance



	Achieved
Science and Innovation: First approvals and NME volume over three years	90%
Growth and Therapy Area Leadership	100%
Achieve Group Financial Targets	88%
Relative TSR	68%
Ambition Zero Carbon (AZC)	100%

Achieved

[1] When determining bonus outturns, the Committee considered the formulaic outcome from the Group scorecard along with wider business and individual impact and performance in 2023, including ESG achievements.

During 2023, the Committee reviewed the Policy to ensure that it continues to be aligned with corporate governance best practice and promotes the delivery of long-term shareholder value. In shaping the new Policy, we have taken into account the perspectives of shareholders gathered from consultation undertaken during 2023. I met 26 of AstraZeneca's largest shareholders and three proxy advisors to discuss our proposals, and was pleased with the level of engagement, feedback and support received.

The purpose of the new Policy is to:

- Incentivise the delivery of the Company's 2030 Bold Ambition and Growth Through Innovation strategy.
- Continue to emphasise the importance the Committee places on performance-related pay.
- Retain and motivate incumbent Executive Directors to deliver against our strategy.
- Ensure that sufficient headroom exists to deliver market competitive performance based reward to our executives and down through the organisation.

In developing the new Policy proposals, the Committee noted that AstraZeneca has changed and grown significantly since the introduction of the 2021 Policy. The Company is more complex, with the integration of Alexion and the addition of successful new therapy areas in Rare Diseases and Vaccines & Immune Therapies. TSR of 40% has been delivered in this period, and Total Revenue has increased from $26.6 billion in 2020 to $45.8 billion at the end of 2023.

We face increasing external talent market pressure as our employees are rightly viewed as market-leading talent. Notably, we experience pay compression challenges under the 2021 Policy, which does not provide sufficient headroom to deploy appropriately leveraged pay for performance compensation across our most senior leadership levels. Independent benchmarking of reward demonstrates that our current remuneration policy risks limiting our ability to compete for key roles below the Board, with heads of R&D being the most highly compensated roles in the industry below CEO level. 40% of our senior leaders are based in the US and over 40% of our revenue derives from the US. The Committee is acutely aware that we must be able to compete for the best talent in the US market.

The Committee recognises that US pay practices differ from the UK, and in particular that US companies may offer a combination of time-based restricted stock, performance-based stock, and sometimes market value options to executive directors. At AstraZeneca we firmly believe that executive pay should be clearly aligned to performance and therefore we are not proposing to alter the design of our incentive plans (annual bonus and PSP) in principle. However, in order to address the challenges of pay compression, and to provide a more competitive package for senior executives, we are proposing an increase to the maximum total incentive opportunity under our Policy, as set out below. The recommended changes will be accompanied by the Committee's continued commitment to setting stretching targets, aligning to the delivery of the 2030 Bold Ambition.

I believe that the proposed Policy reflects our current market position but, more importantly, should set us up for success over the next three-year cycle of the Policy. It will further engage our executive leadership in the conversion of the strength of our pipeline to commercial success, delivering industry-leading growth and our ambition of launching 15 new medicines by 2030 off the back of our planned material financial investment in future pipeline and partnerships. The importance of retaining and motivating our incumbent Executive Directors and senior leadership team in order to drive our 2030 Bold Ambition has been a key theme in consultation discussions with our shareholders. We seek to be competitive with comparable European pharma market peers and our proposals aim to reflect the performance, market capitalisation and future ambition of the Company in that context.

Proposed changes to the Policy and how it will be implemented are summarised below and in more detail on page 127. The Policy is set out from page 128. The Committee would like to highlight that the key proposed changes are strictly linked to performance-related pay.

- No Policy changes are proposed in relation to base pay increases (which will not exceed the average of the relevant wider workforce) or pension arrangements (which are already in line with the relevant wider workforce).
- We propose to increase the target annual bonus opportunity for the CEO, Mr Soriot, to 150% of base pay, resulting in a new maximum bonus of 300% of base pay (currently 250%), in line with the median target bonus opportunity of his global peer group.
- Target annual bonus for the CFO, Dr Sarin, remains unchanged at 100% of base pay, with a maximum bonus opportunity of 200% of base pay.

- Half of any earned bonus will be deferred into shares for three years.
- For awards under the PSP our proposal is to increase the maximum award under the Policy to 850% of base pay from the current 650%, subject to appropriately stretching performance targets. This new maximum would apply to Mr Soriot in 2024 provided that it is approved by shareholders.
- Dr Sarin's 2024 PSP opportunity would increase to 550% of base pay (from 450%).
- At the same time, in light of feedback received from investors, the minimum shareholding requirement for each of our Executive Directors will increase to match their maximum variable pay opportunity, being 1,150% base pay for Mr Soriot, and 750% base pay for Dr Sarin.

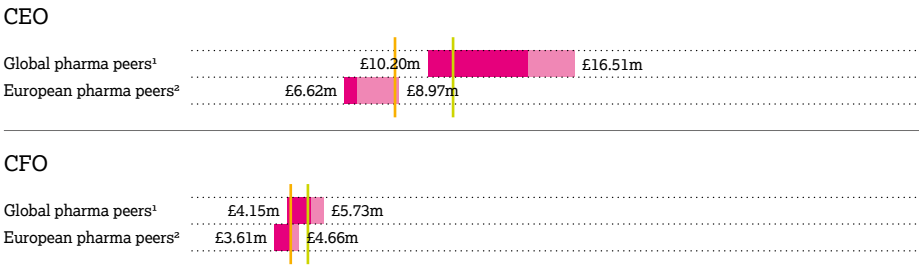
The Committee recognises that these proposals are material if viewed in a UK context. However, the changes are necessary to increase the competitiveness of the performance-related pay opportunity in the context of the global and European pharma market. Given the size, complexity and global reach of AstraZeneca, the Committee does not consider the constituents of the FTSE 100 to be an appropriate group against which to benchmark remuneration. Our approach is to look at remuneration opportunity amongst the European and global pharma peers with whom we compete for talent and compare performance and to determine a Policy which is highly weighted towards pay for performance. The charts below show our Executive Directors' on-target and maximum opportunity relative to our defined comparator groups. Our proposed changes will bring Mr Soriot to the lower quartile of our global peer group, but will better reflect AstraZeneca's relative position within the European peer group, moving up one position in the global and European rankings for target compensation and two positions at maximum (due to the higher proportion of pay at risk compared with peers). The increased PSP opportunity for Dr Sarin will bring her compensation into line with the global median of her peers. The importance of being able to offer our impactful and talented CEO a competitive remuneration package, has been a key area of interest raised by shareholders in consultation discussions.

The Committee is not proposing to make any changes to the choice of performance metrics and their weightings for the Annual bonus or the PSP in 2024, as feedback from our shareholders is that the metrics successfully align pay with performance outcomes. Given the proposed increase in quantum, the Committee has rigorously reviewed the stretch in performance targets for 2024 to ensure they are appropriate and commensurate with delivery of excellent shareholder value.

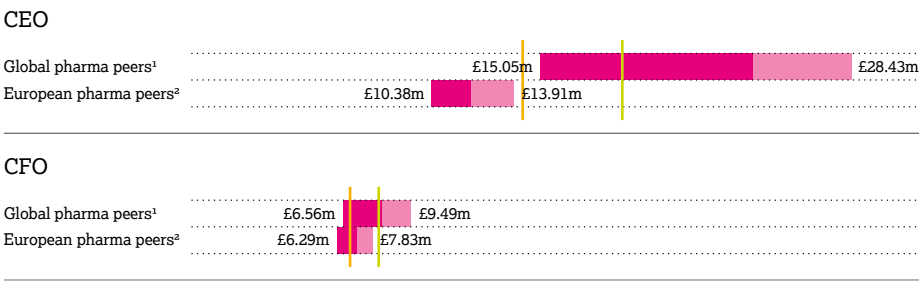
The Board considers that the proposed changes will enable our remuneration framework to be more competitive as we focus on the delivery of our 2030 Bold Ambition for our patients and shareholders. The emphasis on performance-related pay ensures that outcomes are fully aligned with shareholder interests as we address the need to attract and retain outstanding talent.

The Committee took shareholders' feedback into account on the proposed changes to the Policy, and we would like to take this opportunity to thank all those who took part for their constructive engagement and support for our proposals.

Market positioning of Executive Directors' on-target remuneration



Market positioning of Executive Directors' maximum remuneration



Lower quartile to median
Median to upper quartile
Current position
2024 proposal

[1] Global pharma peer group consists of: AbbVie, Amgen, BMS, Eli Lilly, Gilead, GSK, Johnson & Johnson, Merck, Novartis, Novo Nordisk, Pfizer, Roche and Sanofi (CEO only).
[2] European pharma peer group consists of: Bayer, GSK, Merck KGaA, Novartis, Novo Nordisk, Roche and Sanofi (CEO only).

Remuneration includes base pay, target annual bonus and the expected value of LTI awards. Benchmarking data has been provided by the Committee's independent adviser.

Non-Executive Directors' fees

With effect from January 2024, certain of the Non-Executive Directors' fees have been increased. This reflects the continuing increase in workload and responsibilities of non-executive directors of large, global, complex, publicly listed companies, including the importance of the Science Committee and the Sustainability Committee to the Board's work and the workloads of these Committees. AstraZeneca Non-Executive Directors' fees have not been increased since January 2022. No Board member participated in any decisions relating to their own fees. Further detail is provided on page 118.

Next steps

I hope that you find this Remuneration Report clear in explaining the 2024 Policy proposals and the implementation of our Policy during 2023. We trust that we have provided the information you need to be able to support the resolution to be put to shareholders on the new Policy and this Remuneration Report at the Company's AGM in April 2024.

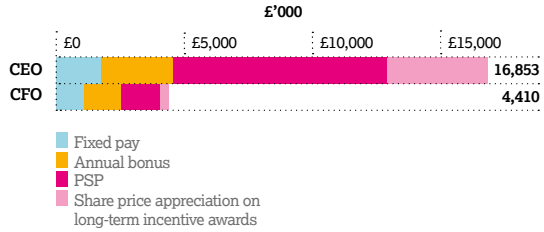
Our ongoing dialogue with shareholders and other stakeholders is valued greatly and, as always, we welcome your feedback on this Directors' Remuneration Report.

Sheri McCoy
Chair of the Remuneration Committee

Remuneration at a glance

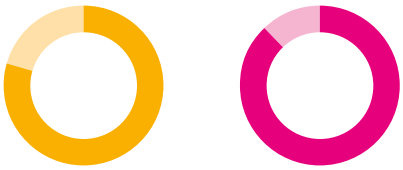
What our Executive Directors earned

Executive Directors' realised pay 2023 outcomes



Fixed pay consists of base pay, benefits fund and pension. Further information on Executive Directors' realised pay for 2023 is on page 109.

Formulaic outcome of 2023 Group scorecard and 2021 PSP



See from page 110 for further information on the annual bonus and PSP outcome.

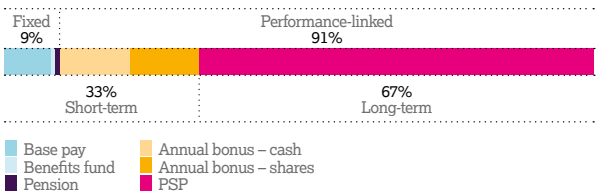
When determining bonus awards, the Committee considered the formulaic outcome from the Group scorecard along with wider business and individual impact and performance in 2023, including ESG achievements.

Looking ahead

Executive Directors' remuneration for 2024

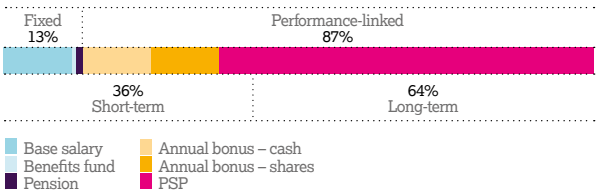
	Fixed remuneration	Annual bonus	Long-term incentives	Shareholding requirement	Post-cessation shareholding requirement
Pascal Soriot (CEO)	Base pay: £1,485,658 Benefits fund Pension: £163,422 (equivalent to 11% of base pay)	Max: 300% base pay Target: 150% base pay Deferred: 50% for three years	Max: 850% base pay Performance period: three years Holding period: two years	Holding requirement: 1,150% base pay	Holding requirement: 1,150% base pay for two years post-cessation
Aradhana Sarin (CFO)	Base pay: £951,494 Benefits fund Pension: £104,664 (equivalent to 11% of base pay)	Max: 200% base pay Target: 100% base pay Deferred: 50% for three years	Max: 550% base pay Performance period: three years Holding period: two years	Holding requirement: 750% base pay	Holding requirement: 750% base pay for two years post-cessation

CEO fixed vs performance-linked (%)



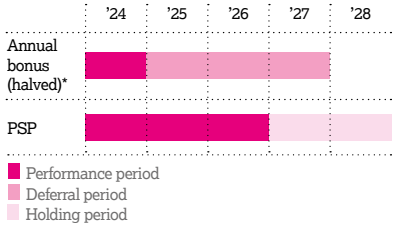
Based on maximum payout scenarios for the CEO assuming maximum of 300% and 850% of base pay for annual bonus and PSP respectively.

CFO fixed vs performance-linked (%)



Based on maximum payout scenarios for the CFO assuming maximum of 200% and 550% of base pay for annual bonus and PSP respectively.

Executive Directors' variable pay



*Half of the annual bonus is deferred for three years.

See from page 111 for further details on plan design.

How our performance measures for 2024 support the delivery of our strategy

AstraZeneca aims to continue to deliver great medicines to patients while maintaining cost discipline and a flexible cost base, driving operating leverage and increased cash generation. To incentivise and reward delivery of great performance over the short and longer term, the Committee carefully considers the balance of science, financial and ESG measures between the Annual bonus and PSP.

Our focus on incentivising innovative science aligns with our patient-centric culture, as we strive to push the boundaries of science to deliver life-changing medicines to patients. The 2024 performance measures are closely aligned with our strategic priorities, as shown below.

For more information about our strategic priorities, see page 12. For more information about the 2024 performance measures, see from page 111.

Key

- Annual bonus
- PSP
- KPI

Strategic pillar

Science and Innovation

Remuneration performance measures

Science indices ●●○

Our science measures incentivise the development of NMEs and the maximisation of the potential of existing medicines.

Bonus performance is assessed on pipeline progressions through Phase II and Phase III clinical trials. These reflect the outcome of nearer-term strategic investment decisions, whereas, in contrast, PSP performance is assessed on the volume of NMEs in Phase III and the registration stage, which reflects the outcome of longer-term strategic investment decisions.

Additionally, we measure regulatory submissions and approvals for bonus, and regulatory approvals for PSP to drive the conversion of scientific progress into commercial revenue over the short term (bonus) and the longer term (PSP).

Together, these science measures incentivise innovation and sustainable success along the length and breadth of the pipeline, leading to commercial growth.

Strategic pillar

Growth and Therapy Area Leadership

Remuneration performance measure

Total Revenue ●●○

Our Total Revenue measure is included in the bonus and the PSP, reflecting the importance of incentivising sustainable growth in both the short and longer term.

Financial targets

Achieve Group Financial Targets

Remuneration performance measures

Cash flow ●●○

Ensures that we can sustain investment in our pipeline and Therapy Areas while at the same time meeting our capital allocation priorities. Cash flow is included in both the bonus and the PSP, ensuring a focus on both short- and longer-term cash flow generation and balance sheet strength.

Core EPS ●○

Incentivises operational efficiency and cost discipline, and remains a key measure of our profitability and a focus for our investors.

Total shareholder return (TSR) ●

Assessed relative to our peer group of companies, the measure rewards positive performance that our shareholders also directly benefit from. This measure incentivises outperformance versus our peer group, and promotes the delivery of long-term sustainable returns for our shareholders.

Strategic pillar

People and Sustainability ●

We are committed to people and making a difference to society. Assessment of performance against this pillar is captured through a holistic review of each Executive Director's individual performance (detailed on pages 112 and 113) as part of the final determination of annual bonus, including consideration of our progress against our ESG aspirations:

- Continuing to make our Company a great place to work by delivering our inclusion and diversity strategy and learning and development programmes.
- Ensuring we operate in the smartest way and increase the speed of delivery of our life-changing medicines to patients through our Future of Work strategic initiative.
- Leading the way in our efforts to improve access to healthcare and build health system resilience.

Ambition Zero Carbon ●

This measure incentivises the elimination of our Scope 1 and Scope 2 GHG emissions through 2025 with targets verified in line with the science of climate change, where we will innovate to avoid, reduce and substitute to become zero carbon.

How the Remuneration Committee ensures targets are stretching

We set stretching targets that incentivise our leaders to deliver exceptional performance, and to drive sustainable results for our patients, our employees and our shareholders. 2024 targets:

> The Committee has reviewed the proposed targets against internal and external forecasts, including market consensus and peer group performance, and is comfortable that the level of stretch promotes truly exceptional performance in line with the delivery of our 2030 Bold Ambition.

> In real terms, financial performance goals under the 2024 Group scorecard and PSP would require achievement above prior year outturns and growth in excess of the average expected of the industry, particularly when taking the significant capital investment expected to be made during the performance period.

Consistent with our approach in prior years we undertake the following robust process to setting annual bonus and PSP targets and assessing outcomes:

Stage 1 – Target setting	Science targets are based on a cohort of scientific opportunities specified at the start of the performance period. Opportunities represent potential achievements through the pipeline, from an early stage where our scientists work to discover new molecules, through to ultimately obtaining approvals and getting new medicines to patients. Rewarding success at each stage recognises the importance of creating and maintaining a long-term sustainable pipeline. Stretch of proposed targets is reviewed by the Science Committee taking into account factors such as the expected net present value of the pipeline and the anticipated financial contribution it will make, past performance, the external regulatory environment, and internal resourcing and efficiencies. Targets for realisation of these opportunities are ambitious. The outlook for the delivery of the pipeline is increasingly challenging given the rising proportion of new modalities and innovation, representing previously untested science. Proposed targets for the Ambition Zero Carbon measure are reviewed and endorsed by the Sustainability Committee and exceed the 1.5°C Paris Agreement glide path. Our decarbonisation ambitions are increasingly challenging to deliver in the context of broader enterprise growth, particularly the higher supply volumes required to fulfil demand for our medicines.	Financial Targets metrics align with the Company's Mid-Term Plan (MTP), which sets out the financial framework for delivering our ambitious strategy over a three-year period. The MTP process includes detailed business reviews, during which plans and efficiencies of each unit are challenged, leading to a proposed MTP for the Board to review and challenge. The Committee sets targets based on the Board-approved MTP, considering consensus expectations, independent analytics and anticipated challenges and opportunities. Whilst Total Revenue and Core EPS targets are set at budget exchange rates at the beginning of the performance period and evaluated at those rates at the end of the performance period (so that any beneficial or adverse movements in currency do not impact reward outcomes), the Committee also compares targets against prior plans at constant exchange rates, to ensure that new targets incentivise ambitious levels of growth. Where consensus figures do not align with internal forecasts, the Committee seeks to understand why a difference exists (such as differences in assumed capital expenditure). This range of data is used by the Committee to ensure the stretching nature of performance targets is robustly tested. Additionally, the PSP TSR measure is designed to reward strong performance relative to our peers.
Stage 2 – Committee review and approval of targets	The Committee thoroughly reviews and challenges targets proposed by management, working in partnership with the Science and Sustainability Committees to ensure targets are stretching and robust. The Committee is provided with considerable supporting material for each metric and receives briefings from senior leaders across AstraZeneca. The science measures are reviewed and endorsed by the Science Committee, with a focus on ensuring that the targets will result in long-term sustainable value creation, and the Committee reviews and approves the full cohort of opportunities. The ESG metric within the PSP is aligned to our Ambition Zero Carbon goal and reflects the importance of eliminating GHG emissions in our Scope 1 and Scope 2 operations through 2025.	The Ambition Zero Carbon metric has been reviewed and endorsed by our Sustainability Committee. Committee members participate in the full Board discussions on the strategy, MTP and budget, which form the basis for the targets. The Committee considers how proposed financial targets align with the MTP and budget; prior years' outcomes (in absolute terms and against target); how the ambition has changed from the prior MTP and budget; external guidance the Company has provided or plans to give; consensus from external financial analysts and factors it may be impacted by; and the underlying assumptions. Statistical analysis conducted by the Committee's independent adviser is also used to assess the proposals. This includes an assessment of historical levels of performance volatility.
Stage 3 – Performance assessment	At the end of the period, final performance against each metric is assessed. Outcomes are calculated based on performance against each weighted metric. Each performance measure is assessed on a standalone basis, so that underperformance against one measure cannot be compensated for by overperformance against another. Data for the metrics is taken from the Group's financial reports which are reviewed by the Audit Committee and approved by the Board.	The Science Committee independently considers and informs the Committee whether science achievements represent a fair and balanced outcome, reflecting genuine achievements and pipeline progression. Ambition Zero Carbon outcomes are validated by the Sustainability Committee. Apart from Cash flow, which is set at actual rates of exchange, financial metrics are set at budget rates of exchange and evaluated at those rates at year end, which means they are not directly comparable year-on-year. The Committee is, however, provided with data to allow it to conduct year-on-year analyses.
Stage 4 – Determination of Executive Directors' bonuses	For annual bonus, the fairness of the formulaic Group scorecard outcome is considered in the context of overall business performance and the experience of shareholders. Such considerations include TSR performance and each Executive Director's personal impact on the delivery of the strategy, wider ESG performance and other organisational achievements, such as inclusion and diversity targets and the realisation of technology-based milestones. Each year, there are important individual deliverables beyond the scorecard metrics which are taken into account when determining individual bonuses.	Having considered the Group scorecard outcome, overall business performance, the experience of shareholders and individual performance, as detailed from page 112, the Committee carefully determines a final bonus outcome for each Executive Director that is considered fair and appropriate for the year's performance, and is in the best interests of shareholders.

Annual Report on Remuneration

Key:

Audited

Audited information
Content contained within the Audited panel indicates that all the information within has been subject to audit.

Planned implementation for 2024
Content contained within a grey box indicates planned implementation for 2024.

The elements within the Executive Directors' realised pay are colour coded:

> Fixed remuneration has a light blue border and is found on page 110.
> Annual bonus has a yellow border and can be found on pages 110 to 114.
> Long-term incentives (LTI) has a magenta border and can be found on pages 114 to 117.

Executive Directors' remuneration

This section of the Directors' Remuneration Report sets out the Executive Directors' remuneration for the year ended 31 December 2023, alongside the remuneration that will be paid to Executive Directors during 2024.

Executive Directors' realised pay for 2023 (single total figure of remuneration)

Audited

The table below sets out all elements of realised pay receivable by the Executive Directors in respect of the year ended 31 December 2023, alongside comparator figures for 2022. This includes the vesting of PSP awards from 2021 following the three-year performance period. These shares are subject to a further two-year holding period. The significant increase in AstraZeneca's share price over the period of grant to vest has provided the Executive Directors with a significant increase in value of the equity components of their reward. £3,945,583 of Mr Soriot's and £374,506 of Dr Sarin's 2023 realised pay is attributable to share price increases. The benefit of the increased share price has also been experienced by shareholders.

The Committee did not exercise any discretion in relation to the LTI outcomes or the formulaic outcome of the Group scorecard.

£'000		Base pay	Taxable benefits	Pension	Other	**Total fixed**	Annual bonus	Long-term incentives[1]	**Total variable**	**Single total figure**	**Share price appreciation as % of single total figure**
Pascal Soriot	**2023**	1,429	140	157	–	1,726	2,839	12,288	15,127	16,853	23%
	2022	1,367	136	150	–	1,653	3,127	10,305	13,432	15,085	19%
Aradhana Sarin	**2023**	915	46	101	–	1,062	1,455	1,893	3,348	4,410	8%
	2022	876	161	96	–	1,133	1,602	–[2]	1,602	2,735	–

[1] Long-term incentive values disclosed in 2022 have been recalculated using the average closing share price for the three months ended 31 December 2023. See page 114.
[2] Dr Sarin was appointed as CFO on 1 August 2021, and had no LTI awards which completed their performance period in 2022.

The following sections provide further detail on the figures in the above table, including the underlying calculations and assumptions and the Committee's performance assessments for variable remuneration.

The Annual bonus section is set out from page 110 and the Long-term incentives section from page 114. Information about the Executive Directors' remuneration arrangements for the coming year, ending 31 December 2024, is highlighted in grey boxes.

Annual Report on Remuneration *continued*

Fixed remuneration

Audited

Base pay

When awarding base pay increases, the Committee considers, among other factors, base pay increases applied across the UK employee population. The increase to current Executive Directors' base pay for 2024 will increase in line with the UK all-employee base pay increase budget at 4%.

	2023		2024	
£'000	Change from 2022	Base pay	Change from 2023	Base pay
Pascal Soriot	4.5%	1,429	4%	1,486
Aradhana Sarin	4.5%	915	4%	951

Audited

Taxable benefits

The totals within taxable benefits include the CEO's allowance under AstraZeneca's UK Flexible Benefits Programme, under which he can select benefits or take his allowance, or any proportion remaining after the selection of benefits, in cash (£115,660 taken as cash). The value of personal tax advice provided to each Executive Director in 2023 was £18,687 and £45,120 for the CEO and CFO respectively.

	2023	2024
£'000	Total taxable benefits	Taxable benefits
Pascal Soriot	140	In line with 2023
Aradhana Sarin	46	In line with 2023

Audited

Pension

The Executive Directors receive a pension allowance of 11% of base pay, in line with the wider UK workforce. During 2023, the Executive Directors took their pension allowance as a cash alternative to participation in a defined contribution pension scheme. Neither of the Executive Directors has a prospective entitlement to a defined benefit pension by reason of qualifying service.

		2023		2024
£'000	Pensionable base pay	Pension allowance	Cash in lieu of pension	Pension allowance
Pascal Soriot	1,429	11% of base pay	157	11% of base pay
Aradhana Sarin	915	11% of base pay	101	11% of base pay

Annual bonus

Audited

2023 Annual bonus

Annual bonuses earned in respect of performance during 2023 are included in the realised pay table.

Detailed information on the Committee's approach to target setting and assessment of performance is set out from page 112.

Half of the Executive Directors' pre-tax bonus is compulsorily deferred into Ordinary Shares which are released three years from the date of deferral. Bonuses are not pensionable.

	Annual bonus in respect of performance during 2023				
	Bonus potential as % of base pay		Bonus payable in cash	Bonus deferred into shares	Total bonus awarded
£'000	Target	Maximum			
Pascal Soriot	125%	250%	1,419	1,420	2,839 79.5% max
Aradhana Sarin	100%	200%	727	728	1,455 79.5% max

Annual bonus *continued*

Audited

2023 Group scorecard assessment

Performance against the 2023 Group scorecard is set out below.

The Group scorecard is used in the determination of bonus payouts for all AstraZeneca employees. Each metric within the scorecard is assessed on a standalone basis and has a defined payout range.

Performance below the specified threshold level for a metric will result in 0% payout for that metric. 100% of target bonus will pay out for on-target performance, and 200% of target bonus will pay out for performance at or above maximum. Performance between threshold and maximum is assessed on a pro rata basis. Maximum bonus payouts for the CEO and CFO for 2023 were capped at 250% and 200% of base pay respectively. The payout range for each metric is capped in line with each Executive Director's maximum bonus opportunity to ensure underperformance against one metric cannot be compensated for by overachievement against another. The table below shows the scorecard formulaic outcomes for the CEO and CFO as a percentage of target bonus.

2023 Group scorecard performance measures and metrics	Weighting	Threshold (0% payout)	Target (100% payout)	Maximum (200% payout)	Outcome	Formulaic outcome (% of target bonus)
Science and Innovation measures						
Science and Innovation: Annual pipeline progression						
Pipeline progression events	15%	13	25	38	30	21%
Regulatory events	15%	25	35	46	46	30%
Subtotal – Science and Innovation measures	30%					51%
Financial measures						
Growth and Therapy Area Leadership						
Total Revenue ($bn)	30%	42.6	43.9	45.2	44.8	52%
Achieve Group Financial Targets						
Cash flow ($bn)	20%	7.9	9.3	10.7	9.5	23%
Core EPS ($)	20%	6.55	6.89	7.24	7.13	34%
Subtotal – Financial measures	70%					57%
Total	100%					159%

Key: Bar charts are indicative of 2023 performance; scales do not start from zero.
Due to rounding, the total formulaic outcome differs from the arithmetic total of the individual metric outcomes disclosed above.

Pipeline progression events include Phase II starts and progressions, and NME and life-cycle management positive Phase III investment decisions. Regulatory events include NME and major life-cycle management regional submissions and approvals. Further detail on our Science and Innovation strategic priority and these events is included from page 12 of this Annual Report.

Annual bonus *continued*

Audited

In 2023, the Growth and Therapy Area Leadership measure was based on Total Revenue. The Total Revenue and Core EPS measures are both set and evaluated at budget exchange rates at the beginning of the year and evaluated at those rates at the end of the performance period, so that any beneficial or adverse movements in currency, which are outside the Company's control, do not impact reward outcomes. The Cash flow measure is set and evaluated at the actual exchange rate and is evaluated by reference to net cash flow from operating activities less capital expenditure, adding back proceeds from disposal of intangible assets, to be fully transparent with all elements easily derived from the Group IFRS Cash Flow Statement.

Overall assessment

During 2023, the Executive Directors' individual performance was assessed in the following key areas which align with the Company's objectives.

Pascal Soriot

Mr Soriot has skillfully steered AstraZeneca through another successful year. Commercial execution across all therapy areas and regions was very strong, underpinned by robust manufacturing and supply. Scientific performance in 2023 saw several significant positive read outs and regulatory approvals, including the launch of three new medicines that will contribute to the delivery of the Company's 2030 Bold Ambition: *Airsupra*, *Truqap* and *Wainua*. Mr Soriot continues to lead the Company to drive Growth Through Innovation in science, with over a third of our pipeline now representing new modalities in 2023, reinforcing the transformative potential of our industry leading pipeline. Mr Soriot also oversaw the identification and signing of a number of impactful business development transactions during the year, including the licensing of a novel GLP-1 asset from Eccogene for obesity, the transaction with CinCor and proposed acquisition of Gracell Biotechnologies, which are expected to further accelerate delivery in cell therapy and oncology.

Throughout 2023, Mr Soriot maintained a strong financial position for AstraZeneca, delivering yet another year of growth in revenue and profitability. The Committee also considered Mr Soriot's leadership across other dimensions of performance:

Demonstrating leadership to support developments in global life sciences	Mr Soriot has continued to drive change through a diverse set of external engagements with world leaders including senior government officials from the US, Canada, China and Sweden, enhancing strategic partnerships and catalysing innovation, demonstrating his thought leadership, his ability to drive global change and his influence on key issues. He was the only private sector CEO to deliver a keynote speech at Climate Week in the presence of HM King Charles III and delivered a key note speech on Public – Private Partnerships for Healthcare Climate Action at COP28 in Dubai. He also attended both the American Society of Clinical Oncology (ASCO) and the European Society for Medical Oncology (ESMO) where he had the opportunity to engage with the scientific community, highlighting pivotal data that strengthens our confidence that we will replace conventional chemotherapy for many patients with advanced lung and breast cancers.
Leading in Environmental, Social & Governance (ESG) performance	Mr Soriot continued to advocate for an uncompromising sustainability agenda at AstraZeneca exemplifying, through his leadership, the essential role of ESG within AstraZeneca's strategy and also the important role global leaders have in the direction of global decarbonisation, demonstrated by his leadership of the SMI Health Systems; and advancing climate action through his leadership and involvement in an industry collaboration to increase renewable energy to the industry's supply base. His efforts have been recognised at COP28 and by TIME magazine which named Mr Soriot in its inaugural TIME100 Climate. Under Mr Soriot's leadership, in 2023 AstraZeneca has improved or maintained its position on the ESG disclosures listings we report on, including receiving a Gold score from Ecovadis (previously Silver) and a step-up in the Corporate Sustainability Assessment (CSA) position to 4th in the sector. In 2023, AstraZeneca embarked on an extensive expansion of AZ Forest including forest protection and biodiversity for a cumulative 200 million trees. It is estimated that AZ Forest will remove around 30 million tonnes of carbon dioxide from the atmosphere over 30 years, demonstrating our commitment to environmental conservation, made possible by Mr Soriot's leadership. Healthy Heart Africa (HHA) continued to expand, launching in eight new countries. Over 43 million screenings have been conducted since the programme began, and 11,390 healthcare professionals trained. In total, over 66 million people have been reached by Access to Healthcare programmes.
Making AstraZeneca a great place to work	Mr Soriot has continued to highlight the importance of having a truly diverse workforce, striving to drive a business with an inclusive and equitable environment where people feel that they belong, where they feel valued for the contribution they make, and empowered to push boundaries and innovate. Our Inclusion & Diversity (I&D) strategy, "The Power of Diversity" remained a key focus with topics including Clinical Trial Diversity, Cultural Intelligence, and spotlighting the work of our Employee Resource Groups (ERGs). AstraZeneca celebrated global I&D recognition days throughout the year including International Women's Day, Neurodiversity Celebration Week, World Day for Cultural Diversity, Pride Month, International Day of the Girl and International Day for Persons with Disabilities. Our progress was recognised externally on the 2023 Bloomberg Gender-Equality Index, Human Rights Corporation Corporate Equality Index, TIME World's Best Companies, Forbes World's Best Employers, Forbes World's Top Companies for Women and Financial Times Leader in Diversity. Mr Soriot's emphasis on leaders as coaches of our employees, and support for investments in lifelong learning has been key to providing our people with opportunities to perform, stretch, grow and take charge of their development. In 2023 AstraZeneca received several external, highly-respected awards for internal talent management programmes, including 'Diversity by Design' which won the Healthcare Businesswomen's Association (HBA) Advancement. Commitment. Engagement. (ACE) Award and, alongside the Empowerment programme, also contributed to making AstraZeneca the Learning & Development winner of the Personnel Today Awards 2023.

Annual bonus *continued*

Aradhana Sarin

Audited

Dr Sarin continued to demonstrate her skills as a leader across the enterprise, helping to elevate a high-performance culture and driving efficiencies and simplification.

Performance delivery	Under Dr Sarin's leadership, the finance function continued to deliver strong performance and made significant steps in tax planning for the future, along with debt refinancing for the business building in additional flexibility to help support future business development. Dr Sarin was personally involved in the strategic and finance review for five major business development transactions, including CinCor, Pfizer Gene Therapy Portfolio, Eccogene, Icosavax and the proposed acquisition of Gracell Biotechnologies, along with providing guidance on negotiations, resulting in attractive terms for AstraZeneca.
Creating an enterprise-wide impact through Global Business Services (GBS)	Under Dr Sarin's guidance, GBS has maintained a pivotal role in AstraZeneca's transformation. Aligned to the Future of Work, Dr Sarin has emphasised the need for simplifying, standardising, and scaling services so that AstraZeneca can deliver more medicines, faster and to more patients. Guided by Dr Sarin's leadership, significant advances have been made creating efficiencies through clever use of new technology; the introduction of a transformational programme for data management which replaces multiple processes and uses integrated analytics that optimise process performance, and automated checks to ensure that data is right the first time; a new initiative on vendor demand which is transforming the way we search, find and buy goods and services; and an app developed and deployed which assists teams in Oncology Breast Cancer enabling them to make study co-location decisions – allowing studies to progress faster and removing complexities faced by Clinical Operations teams. All of these developments will help AstraZeneca to grow and change at speed.
Great place to work/ employee engagement	Dr Sarin continued to strive for increased diversity in the workplace. In June, she became the executive sponsor of AstraZeneca's Network of Women. Dr Sarin supported several I&D recognition days including World Day for Cultural Diversity and Dialogue, International Women's Day and International Day of the Girl, for which she hosted a discussion panel focussing on the work of the Young Health Programme in driving greater equity for women and girls around the world. Dr Sarin's leadership style and positive influence on the team was reflected with Pulse scores showing that 90% of employees in the Finance function would recommend AstraZeneca as a great place to work and 91% believing that managers are committed to diversity and inclusion.

Final determination of Executive Directors' bonuses

Audited

In determining the annual bonus outturn for Executive Directors, the Committee considers the formulaic Group scorecard outcome, as well as the overall business performance, shareholder experience and the personal contribution of the individual Executive Director. A description of the Executive Directors' personal achievements is detailed above.

Given the contributions made by both Mr Soriot and Dr Sarin in 2023 as outlined above, the Committee determined the bonus outturns for both Executive Directors should be 159% of target (or 79.5% of maximum), in line with the formulaic Group scorecard outcome.

Deferred Bonus Plan (DBP)

Half of each Executive Director's pre-tax annual bonus is ordinarily deferred under the DBP. In respect of the bonus deferred, the Executive Director is granted a conditional award over shares. No further performance conditions apply to DBP shares. One half of the bonus earned in respect of performance during 2022 was deferred and details of the consequent DBP awards granted in 2023 are shown below. One half of the Executive Directors' bonus earned in respect of performance during 2023 has been deferred and the consequent DBP awards are expected to be granted in March 2024.

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				2023 Grant	2024 Grant
	Ordinary Shares granted	Grant date	Grant price (pence per share)[1]	Face value £'000	2023 Bonus deferred £'000
Pascal Soriot	14,448	4 March 2023	10821	1,563	1,420
Aradhana Sarin	7,403	4 March 2023	10821	801	728

[1] The grant price is the average closing share price over the three dealing days preceding grant.

		2024 Group scorecard performance measures and metrics			
	Measure weighting	Underlying metrics (if applicable)	Metric weighting	2024 target	
Science and Innovation: Annual pipeline progression	30%	Pipeline progression events	15%	↑	C
		Regulatory events	15%	↑	C
Growth and Therapy Area Leadership	30%	Total Revenue	30%	↑	C
Achieve Group Financial Targets	40%	Cash flow	20%	↑	C
		Core EPS	20%	↑	C

Key: ↑ Target increased vs 2023 target; ↓ Target decreased vs 2023 target; ↔ Target constant; C Commercially sensitive

Annual bonus *continued*

We intend to disclose the 2024 Group scorecard outcome and details of the performance hurdles and targets in the 2024 Directors' Remuneration Report following the end of the performance period. The performance targets are currently considered to be commercially sensitive as prospective disclosure may prejudice the Company's commercial interests. Executive Directors' individual contribution will be assessed by reference to individual goals in line with the Company's objectives for the year.

Long-term incentives

Audited

Long-term incentives included in the Executive Directors' realised pay for 2023 figure: 2021 PSP

The Executive Directors' realised pay for 2023 includes the value of PSP award with performance period ended 31 December 2023. These shares and dividend equivalents will not be released to the Executive Directors' until the awards vest at the end of the holding period.

The value of the shares due to vest has been calculated using the average closing share price over the three-month period ended 31 December 2023 (10401 pence). The table below provides a breakdown showing the face value of these shares at the time they were granted, the value that is attributable to share price appreciation since grant, and the value of dividend equivalents accrued on these shares over the relevant performance period. Further information about the individual awards and performance assessments follows the table.

Audited

		Long-term incentive awards with performance periods ended 31 December 2023					
				Value of shares due to vest			
		Ordinary Shares granted	Performance outcome	Face value at time of grant £'000	Value due to share price appreciation[1] £'000	Dividend equivalent accrued over performance period £'000	Long-term incentives total £'000
Pascal Soriot	2021 PSP	126,046[2]	88%	7,591[3]	3,946	751	12,288
Aradhana Sarin	2021 PSP	19,414[4]	88%	1,402[5]	375	116	1,893

[1] Calculated using the difference between the grant price and the average closing share price over the three-month period ended 31 December 2023. The average closing share price over the three-month period ended 31 December 2023 was 10401 pence.
[2] Awards were granted to Mr Soriot on 5 March 2021 and 14 May 2021, to take account of the revised limits for the PSP approved by shareholders at the Company's 2021 AGM.
[3] Calculated using the grant price of 6844 pence for the CEO's 2021 PSP awards.
[4] Dr Sarin's award was granted on 13 August 2021, following her appointment as CFO on 1 August 2021. Her award was pro-rated to reflect that she took up the role part way through 2021.
[5] Calculated using the grant price of 8209 pence, being the average closing share price over the three dealing days preceding the CFO grant.

The 2021 PSP awards granted to Mr Soriot on 5 March 2021 and 14 May 2021, to take account of the revised limits for the PSP which were approved by shareholders at the Company's 2021 AGM, are due to vest and be released on 5 March 2026 and 14 May 2026 on completion of a further two-year holding period. The 2021 PSP award was granted to Dr Sarin on 13 August 2021 following her appointment as CFO on 1 August 2021. The award made to Dr Sarin was pro-rated to reflect that she took up the role part way through 2021. Her award is due to vest on 13 August 2026 on completion of a further two-year holding period. Performance over the period from 1 January 2021 to 31 December 2023 will result in 88% of the awards vesting, based on the following assessment of performance. The 2021 PSP targets were reviewed in light of the enlarged Group following the acquisition of Alexion. The Science and Innovation, Growth and Therapy Area Leadership, Ambition Zero Carbon and Cash flow targets were all amended in line with the Committee's approach of ensuring performance targets are not materially more or less stretching as a result of the transaction and continue to incentivise strong delivery. No amendments were made to the TSR performance measure.

Long-term incentives

The Growth and Therapy Area Leadership target (measuring Total Revenue) is set at budget exchange rates at the beginning of the performance period and evaluated at those rates at the end of the performance period, so that any beneficial or adverse movements in currency, which are outside the Company's control, do not impact reward outcomes.

The Cash flow measure is assessed using cumulative net cash flow from operating activities less capital expenditure, adding back proceeds from disposal of intangible assets.

For more information on Ambition Zero Carbon see page 48 and our TCFD Supplement, which is available on www.astrazeneca.com/annualreport2023..

AstraZeneca ranked sixth within the TSR peer group. The TSR peer group for the 2021 PSP consisted of AbbVie, Amgen, Astellas, BMS, Daiichi Sankyo, Eli Lilly, Gilead, GSK, Johnson & Johnson, MSD, Novartis, Novo Nordisk, Pfizer, Roche, Sanofi and Takeda.

Audited

2021 PSP performance measures and metrics[1]	Weighting	Threshold (20% vesting)	Maximum (100% vesting)	Outcome	Payout
Science and Innovation: First approvals and NME volume over three years					
NME Phase III/registrational volume	12%	9	18	16	11%
Regulatory events	18%	13	26	24	17%
Subtotal – Science and Innovation[2]	30%				28%
Growth and Therapy Area Leadership ($bn)	20%	40.5	47.5	49.0	20%
Cash flow ($bn)	20%	19.0	27.0	25.0	18%
Total shareholder return	20%	Median	UQ[3]	6th	14%
Ambition Zero Carbon	10%	272 $ktCO_2e$	220 $ktCO_2e$	207.4$ktCO_2e$	10%
Total[2]	100%				88%

Key: Bar charts are indicative of 2021 PSP performance; scales do not start from zero.
Due to rounding, the total outcome differs from the arithmetic total of the individual metric outcomes disclosed above

1 The Committee reviewed the 2021 PSP targets following the acquisition of Alexion to reflect the impact of the acquisition on the Company's results. The Committee is confident that the increases applied to the targets during that review ensured that they remained ambitious and stretching. The Company does not intend to disclose the original Growth and Therapy Area Leadership target, set prior to the acquisition, as the adjustment to the target relates to a single disease area (Rare Disease), which is therefore commercially sensitive. The other original targets were disclosed in the Company's annual report for the year ended 31 December 2020.
2 The subtotal and total reflect the weightings of the individual metrics.
3 UQ = Upper Quartile.

PSP awards granted during 2023

During 2023, conditional awards of shares were granted to the Executive Directors with face values equivalent to 650% of base pay for Mr Soriot and 450% of base pay for Dr Sarin under the PSP. Face value is calculated using the grant price, being the average closing share price over the three dealing days preceding grant.

Performance will be assessed over the period from 1 January 2023 to 31 December 2025 against the measures outlined below to determine the proportion of the award that vests. A further two-year holding period will then apply before vesting, which is scheduled to occur on the fifth anniversary of grant.

	Ordinary Shares granted	Grant date	Grant price (pence per share)[1]	Face value £'000	End of performance period	End of holding period
Pascal Soriot	85,808	4 March 2023	10821	9,285	31 December 2025	4 March 2028
Aradhana Sarin	38,046	4 March 2023	10821	4,117	31 December 2025	4 March 2028

1 The grant price is the average closing share price over the three dealing days preceding grant.

The 2023 PSP performance measures focus on scientific, ESG, commercial and financial performance over the three-year performance period. The five performance metrics attached to the 2023 PSP awards are detailed below. Twenty per cent of the award will vest if the threshold level of performance is achieved; the maximum level of performance must be achieved under each measure for 100% of the award to vest.

Relative total shareholder return (TSR) (20% of award)

TSR performance is assessed against a predetermined peer group of global pharmaceutical companies and consists of AbbVie, Amgen, Astellas, BMS, Daiichi Sankyo, Eli Lilly, Gilead, GSK, Johnson & Johnson, Merck KGaA, Moderna, MSD, Novartis, Novo Nordisk, Pfizer, Roche, Sanofi and Takeda. The rank which the Company's TSR achieves over the performance period will determine how many shares will vest under this measure.

TSR ranking of the Company	% of award that vests
Median	20% (threshold for payout)
Between median and upper quartile	Pro rata
Upper quartile	100%

Long-term incentives *continued*

Audited

Net Cash flow (20% of award)

The Cash flow measure is assessed using cumulative net cash flow from operating activities less capital expenditure adding back proceeds from disposal of intangible assets. The level of vesting under this measure is based on a scale between a threshold target and an upper target.

Cash flow	% of award that vests
$22.0bn	20% (threshold for payout)
Between $22.0bn and $26.0bn	Pro rata
$26.0bn	75%
Between $26.0bn and $31.0bn	Pro rata
$31.0bn and above	100%

Growth and Therapy Area Leadership (20% of award)

For PSP awards granted in 2023, the Growth and Therapy Area Leadership metric is Total Revenue. Disclosing the threshold and maximum hurdles for this measure could be construed to constitute financial guidance, which is not the Company's intention. The Growth and Therapy Area Leadership (Total Revenue) measure is thus considered to be commercially sensitive and will be disclosed following the end of the performance period, in the 2025 Directors' Remuneration Report. This measure is evaluated by reference to budget exchange rates.

Science and Innovation: First approvals and NME volume over three years (30% of award)

Performance is assessed using dual indices which measure NME Phase III/registrational volume and regulatory events, allowing disclosure of targets at the beginning of the performance period.

NME Phase III/registrational volume (12% of award)	% of award that vests
10	20% (threshold for payout)
Between 10 and 15	Pro rata
15	75%
Between 15 and 20	Pro rata
20	100%

Regulatory events (18% of award)	% of award that vests
13	20% (threshold for payout)
Between 13 and 20	Pro rata
20	75%
Between 20 and 26	Pro rata
26	100%

Ambition Zero Carbon (10% of award)

This measure reflects the importance of eliminating greenhouse gas (GHG) emissions from our Scope 1 and Scope 2 operations through 2025. Reductions are measured against our 2015 baseline, and calculated in line with the World Resources Institute/World Business Council for Sustainable Development GHG Protocol methodology for accounting and reporting of our emissions footprint.

Emissions	% of award that vests
142 $ktCO_2e$	20% (threshold for payout)
Between 142 $ktCO_2e$ and 116 $ktCO_2e$	Pro rata
116 $ktCO_2e$	75%
Between 116 $ktCO_2e$ and 91 $ktCO_2e$	Pro rata
91 $ktCO_2e$ and below	100%

Long-term incentives *continued*

PSP performance measures for 2024 grant

The 2024 PSP measures remain unchanged from the 2023 PSP award.

PSP performance measure	Measure weighting	Underlying metrics (if applicable)	Metric weighting	Threshold (20% vesting)	Maximum (100% vesting)
Science and Innovation: First approvals and NME volume over three years	30%	NME Phase III/registrational volume	12%	14	28
		Regulatory events	18%	16	32
Growth and Therapy Area Leadership	20%	Total Revenue		Commercially sensitive until end of performance period	
Cash flow	20%			$23.0bn	$33.0bn
Relative TSR	20%			Median	Upper Quartile
Ambition Zero Carbon	10%			26 $ktCO_2e$	13 $ktCO_2e$

Regulatory events measure NME and major life-cycle management approvals (taking into account the first approval over the performance period). NME Phase III/registrational volume measures the total NME pipeline volume at the end of the performance period. These two items ensure that management is assessed on both R&D late-stage delivery (approvals) and also future pipeline sustainability (volume).

Disclosing the threshold and maximum hurdles for the Growth and Therapy Area Leadership (Total Revenue) measure could be construed to constitute financial guidance, which is not the Company's intention. The Total Revenue measure is thus considered to be commercially sensitive and will be disclosed following the end of the performance period.

The Total Revenue measure is evaluated by reference to budget exchange rates such that beneficial or adverse movements in currency, which are outside the Company's control, do not impact reward outcomes. The Cash flow measure is evaluated using net cumulative cash flow from operating activities less capital expenditure adding back proceeds from disposal of intangible assets. The companies in the TSR comparator group are shown on page 125.

The Cash flow measure is assessed using cumulative net cash flow from operating activities less capital expenditure adding back proceeds from disposal of intangible assets. Capital expenditure is expected to increase by more than 50% during the performance period, driven by investment in several major manufacturing capabilities such as API, inhaled products, monoclonal antibodies and cell therapy.

Our Ambition Zero Carbon measure is based on our Scope 1 and Scope 2 emissions reductions from our 2015 baseline. Further detail on our commitment can be found on page 148.

As described on page 107, the Committee takes into account a wide range of data to ensure that the stretching nature of PSP hurdles is robustly tested and that financial targets are aligned with the Company's Mid-Term Plan. The Committee takes consensus and exchange rates into account when determining the appropriate level of stretch.

PSP awards are expected to be granted to the Executive Directors in March 2024. The PSP award to be granted to Dr Sarin will be equivalent to 550% of base pay. The PSP award to be granted to Mr Soriot will be equivalent to 650% of base pay. Subject to the approval of our proposed Directors' Remuneration Policy and amended rules of the PSP at the Company's AGM on 11 April 2024, a further PSP award will be granted to Mr Soriot equivalent to 200% of base pay, bringing Mr Soriot's total PSP award for 2024 in line with the maximum opportunity under the Policy.

For more information about How our performance measures for 2024 support the delivery of our strategy, and How the Remuneration Committee ensures targets are stretching, see pages 107 and 108.

Non-Executive Directors' remuneration

Non-Executive Directors' realised pay for 2023 (single total figure of remuneration)

Audited

The table sets out all elements of remuneration receivable by the Non-Executive Directors in respect of the year ended 31 December 2023, alongside comparative figures for the prior year.

	2023 Fees £'000	2022 Fees £'000	**2023 Other £'000**	2022 Other £'000	**2023 Total £'000**	2022 Total £'000
Michel Demaré[1]	**584**	158	**–**	–	**584**	158
Euan Ashley	**119**	110	**–**	–	**119**	110
Philip Broadley	**200**	200	**–**	–	**200**	200
Deborah DiSanzo	**120**	120	**–**	–	**120**	120
Diana Layfield	**110**	110	**–**	–	**110**	110
Anna Manz	**40**	–	**–**	–	**40**	–
Sheri McCoy	**175**	157	**–**	–	**175**	157
Tony Mok	**110**	110	**–**	–	**110**	110
Nazneen Rahman	**160**	155	**–**	–	**160**	155
Andreas Rummelt	**110**	110	**–**	–	**110**	110
Marcus Wallenberg	**125**	125	**–**	–	**125**	125
Former Non-Executive Directors						
Leif Johansson – *retired 27 April 2023*	**203**	625	**22**	70	**225**	695
Total	**2,056**	1,980	**22**	70	**2,078**	2,049

[1] Michel Demaré was appointed Chair of the Board from 27 April 2023.

Leif Johansson retired from the Board on 27 April 2023. Mr Johansson's single total figure includes office costs (invoiced in Swedish kronor) of £21,955 for the period in 2023 during which he was Chair of the Board and £69,524 for 2022. From 1 May 2023, the Chair of the Board did not receive office costs.

Non-Executive Directors' fee structure

The Non-Executive Directors' fees effective from January 2024 are set out in the table below, alongside the fees applicable during 2023. Fees for the Non-Executive Directors (other than the Chair of the Board) are determined by the Chair and the Executive Directors. No Board member participated in any decisions relating to their own fees.

The fee structure is reviewed, but not necessarily increased every two years. The Non-Executive Directors' fees have not been increased since January 2022. The Chair's fee was separately reviewed in July 2022 and increased with effect from May 2023. It is next due for review in 2024. With effect from January 2024, increases have been made to the basic Board fee for Non-Executive Directors (excluding the Chair), the senior independent Non-Executive Director's fee, the Chairs' fees for Board Committees (excluding the Nomination and Governance Committee in respect of which no additional fees are paid), as well as the fees for membership of the Science Committee and the Sustainability Committee. In the latest review, the overall size and complexity of the AstraZeneca Group was considered, together with the continuing increase in workload, responsibilities, and time commitment for non-executive directors of global, publicly listed companies, in part driven by changes in the corporate governance and regulatory landscape in multiple jurisdictions. The fees for the Chairs of the Science Committee and the Sustainability Committee, as well as membership fees for these Committees, have been increased to reflect the contribution of these Committees to the sustained future growth of the Company.

The latest review also considered independently-sourced market data for FTSE 30 and FTSE 10 companies, to ensure that the level of AstraZeneca's fees do not hinder the recruitment of Directors of the right experience and calibre for a Group of our scale in a global market.

Non-Executive Director fees	**2023 £'000**	2024 £'000
Chair of the Board[1]	**800**[2]	800
Basic Non-Executive Director	**95**	115
Senior independent Non-Executive Director	**40**	48
Member of the Audit Committee	**25**	25
Chair of the Audit Committee[3]	**45**	50
Member of the Remuneration Committee	**20**	20
Chair of the Remuneration Committee[3]	**40**	45
Member of the Sustainability Committee	**15**	20
Chair of the Sustainability Committee[3]	**30**	45
Member of the Science Committee	**15**	20
Chair of the Science Committee[3]	**30**	45

[1] The Chair of the Board does not receive any additional fees for chairing, or being a member of a Committee.
[2] The fee for the Chair of the Board increased to £800,000 per annum with effect from 1 May 2023 as announced in July 2022.
[3] The Committee Chairs do not receive additional fees for being a member of the Committee.

Directors' shareholdings

Minimum shareholding requirements

Audited

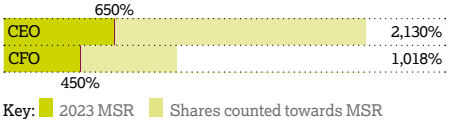
The CEO and CFO are each required to build a shareholding to satisfy their respective minimum shareholding requirements (MSR), each within five years of their dates of appointment or, if the MSR is increased at any time, within five years of that increase. The MSR for 2023 are set out below. Shares that count towards the MSR are shares beneficially held by the Executive Director and their connected persons and share awards that are not subject to further performance conditions. Share awards included are DBP shares in deferral periods, and PSP and AstraZeneca Investment Plan (AZIP) shares in holding periods, on a net-of-tax basis.

A further post-employment shareholding requirement applies to Executive Directors. For two years following cessation of employment, Executive Directors are required to hold shares to the value of the shareholding requirement that applied at the cessation of their employment; or, in cases where the individual has not had sufficient time to build up shares to meet their guideline, the actual level of shareholding at cessation. The post-cessation requirement will be maintained through self-certification, with the Committee keeping this approach under review.

Position against the 2023 minimum shareholding requirement (MSR) as a percentage of base pay

	Beneficially owned shares and shares in a holding period[1]	Shares in deferral period[2]	Shares subject to performance conditions	Value of shares counted towards MSR as a % of base pay[3]
Pascal Soriot	363,489	48,608	308,920	2,130%
Aradhana Sarin	82,514	10,652	100,498	1,018%

[1] Holding period shares included are those which are not subject to continued employment.
[2] Shares in deferral periods which are subject to continued employment.
[3] Holding as at 31 December 2023. Shares subject to deferral and holding periods calculated net of a theoretical 50% tax rate. Shares subject to performance conditions are not included in the value of shares counted towards MSR.



Non-Executive Directors are encouraged to build up, over a period of three years, a shareholding in the Company with a value approximately equivalent to the basic annual fee for a Non-Executive Director (£95,000 during 2023) or, in the case of the Chair, approximately equivalent to his basic annual fee (£800,000 during 2023). All Non-Executive Directors who had served for a period of three years or more as at 31 December 2023 met this expectation, based on the three-month average closing share price for the period ended 31 December 2023 (10,401 pence).

Directors' interests as at 31 December 2023

Audited

The following table shows the beneficial interests of the Directors (including the interests of their connected persons) in Ordinary Shares as at 31 December 2023.

Executive Directors	**Beneficial interest in Ordinary Shares at 31 December 2023[1]**	Beneficial interest in Ordinary Shares at 31 December 2022[1]
Pascal Soriot	**363,489**	248,855
Aradhana Sarin	**82,514**	70,154
Non-Executive Directors		
Leif Johansson[2]	**39,009**	39,009
Michel Demaré[3]	**6,000**	2,000
Euan Ashley	**1,150**	1,150
Philip Broadley	**7,045**	7,045
Deborah DiSanzo	**1,000**	1,000
Diana Layfield	**1,400**	1,400
Anna Manz[4]	**487**	n/a
Sheri McCoy	**1,736**	1,736
Tony Mok	**2,000**	2,000
Nazneen Rahman	**1,017**	1,017
Andreas Rummelt	**27,205**	27,205
Marcus Wallenberg	**60,028**	60,028

[1] For the Executive Directors, beneficial interests include shares in holding periods which are not subject to performance measures or continued employment. Shares in a holding period are included on a gross basis.
[2] Leif Johansson's beneficial interests are shown as at 27 April 2023, when he retired as Chair of the Board.
[3] Michel Demaré was appointed Chair of the Board on 27 April 2023.
[4] Anna Manz was appointed on 1 September 2023.

Further information on the Non-Executive Directors' fee structure can be found within the current Remuneration Policy on the Company's website, www.astrazeneca.com.

Directors' shareholdings *continued*

Audited

Executive Directors' share plan interests

The following tables set out the Executive Directors' interests in Ordinary Shares under the Company's share plans.

Pascal Soriot

Share scheme interests	Grant date	Shares outstanding at 1 January 2023	Grant price (pence)	Shares granted in year	Shares released in year	Shares lapsed in year	Shares outstanding at 31 December 2023: Shares subject to performance	Shares outstanding at 31 December 2023: Shares in deferral/ holding period	Performance period end	Vesting and release date
DBP	06/03/2020	8,734	7376	–	8,734	–	**n/a**	**–**	n/a	06/03/2023[1,2]
	05/03/2021	16,944	6844	–	–	–	**n/a**	**16,944**	n/a	05/03/2024
	04/03/2022	17,216	9154	–	–	–	**n/a**	**17,216**	n/a	04/03/2025
	04/03/2023	–	10821	14,448	–	–	**n/a**	**14,448**	n/a	04/03/2026[3]
PSP	23/03/2018	127,600	4853	–	127,600	–	**–**	**–**	31/12/2020	23/03/2023[4,5]
	08/03/2019	97,351	6287	–	–	–	**–**	**97,351**	31/12/2021	08/03/2024
	06/03/2020	87,346	7376	–	–	2,621	**–**	**84,725**	31/12/2022	06/03/2025[6]
	21/05/2020	8,734	7376	–	–	263	**–**	**8,471**	31/12/2022	21/05/2025[6]
	05/03/2021	106,655	6844	–	–	–	**106,655**	**–**	31/12/2023	05/03/2026
	14/05/2021	19,391	6844	–	–	–	**19,391**	**–**	31/12/2023	14/05/2026
	04/03/2022	97,066	9154	–	–	–	**97,066**	**–**	31/12/2024	04/03/2027
	04/03/2023	–	10821	85,808	–	–	**85,808**	**–**	31/12/2025	04/03/2028[7]
AZIP	27/03/2015	13,095	4762	–	13,095	–	**–**	**–**	31/12/2018	01/01/2023[8,9]
	24/03/2016	10,809	3923	–	–	–	**–**	**10,809**	31/12/2019	01/01/2024
Total		**610,941**		**100,256**	**149,429**	**2,884**	**308,920**	**249,964**		

1 Market price on 6 March 2023, the actual date of release, was 10784 pence.
2 An additional 661 Ordinary Shares were released as a result of the reinvestment of dividend equivalents accrued during the deferral period.
3 Award granted following deferral of one half of the annual bonus earned in respect of performance during 2022, see page 113 for further detail.
4 Market price on 23 March 2023, the actual date of release, was 10976 pence.
5 An additional 17,092 Ordinary Shares were released as a result of the reinvestment of dividend equivalents accrued during the performance and holding period.
6 97% of the shares entered the holding period, following assessment of performance over the period to 31 December 2022. The remaining shares lapsed.
7 Details of PSP awards granted during 2023 are shown on page 115.
8 Market price on 9 February 2023, the actual date of release, was 10752 pence.
9 An additional 3,046 Ordinary Shares were released as a result of the reinvestment of dividend equivalents accrued during the performance and holding period.

Aradhana Sarin

Share scheme interests	Grant/ conversion date	Shares outstanding at 1 January 2023	Grant price (pence)	Shares granted in year	Shares released in year	Shares lapsed in year	Shares outstanding at 31 December 2023: Shares subject to performance	Shares outstanding at 31 December 2023: Shares in deferral/ holding period	Performance period end	Vesting and release date
Alexion incentive shares[1]	21/07/2021	4,290		–	4,290	–	**n/a**	**–**	n/a	01/02/2023[2]
	21/07/2021	9,649		–	9,649	–	**n/a**	**–**	n/a	01/02/2023[2]
	21/07/2021	9,649		–	9,649	–	**n/a**	**–**	n/a	01/02/2023[2]
RSU award[3]	13/08/2021	12,276	8209	–	12,276	–	**n/a**	**–**	n/a	01/02/2023[4,5]
DBP	04/03/2022	3,249	9154	–	–	–	**n/a**	**3,249**	n/a	04/03/2025
	04/03/2023	–	10821	7,403	–	–	**n/a**	**7,403**	n/a	04/03/2026[6]
PSP	13/08/2021	19,414	8209	–	–	–	**19,414**	**–**	31/12/2023	13/08/2026
	04/03/2022	43,038	9154	–	–	–	**43,038**	**–**	31/12/2024	04/03/2027
	04/03/2023	–	10821	38,046	–	–	**38,046**	**–**	31/12/2025	04/03/2028[7]
Total		**101,565**		**45,449**	**35,864**	**0**	**100,498**	**10,652**		

1 The number shown is the number of Ordinary Shares underlying the American Depositary Receipts (ADRs). Two ADRs are equivalent to one Ordinary Share. Awards made to replace Dr Sarin's Alexion incentive share awards, which were outstanding at the time of the Alexion acquisition, were done so on the same basis as other participants. The outstanding in-flight awards were converted to awards over AstraZeneca ADRs in accordance with the terms of the Merger Agreement, using the average of the volume-weighted averages of the trading price of AstraZeneca ADRs on the Nasdaq from 13 July to 19 July 2021 inclusive ($58.2622). The face value of the converted awards was $17.8 million.
2 Market price of AstraZeneca ADRs on 9 February 2023, the actual date of release, was $64.36.
3 One-off restricted share award granted to Dr Sarin to compensate her for the forfeiture of her previous contractual severance right entitlements.
4 Market price of Ordinary Shares on 9 February 2023, the actual date of release, was 10572 pence.
5 An additional 286 Ordinary Shares were released as a result of the reinvestment of dividend equivalents accrued during the vesting period.
6 Award granted following deferral of one half of the annual bonus earned in respect of performance during 2022, see page 113 for further detail.
7 Details of PSP awards granted during 2023 are shown on page 115.

No Director or senior executive beneficially owns, or has options over, 1% or more of the issued share capital of the Company, nor do they have different voting rights from other shareholders. None of the Directors has a beneficial interest in the shares of any of the Company's subsidiaries. Between 31 December 2023 and 8 February 2024, there was no change in the interests in Ordinary Shares for current Directors shown in the table above.

Payments to former Directors

Audited

Marc Dunoyer was granted a PSP award in 2021, whilst in the position of CFO and Executive Director of AstraZeneca PLC. Mr Dunoyer stepped down as an Executive Director on 1 August 2021, part way through the 2021 PSP performance period, but remained a member of the SET. Consistent with other participants in the PSP, performance over the period 1 January 2021 to 31 December 2023 will result in 88% of Mr Dunoyer's award granted in 2021 vesting on completion of a further two-year holding period. This represents 8,868 shares vesting when pro-rated to reflect the performance period during which Mr Dunoyer was an Executive Director (1 January 2021 to 1 August 2021).

Payments for loss of office

During 2023, no payments were made to Directors for loss of office.

Remuneration in the wider context

In our Corporate Governance Report on page 81, we explain in detail how the Board has chosen to engage with AstraZeneca's workforce, and how important engagement with our employees is if we are to be a great place to work and continue to deliver outstanding performance. The Directors believe that the Board as a whole should continue to take responsibility for gathering the views of the workforce. Consequently, instead of implementing one of the three methods for workforce engagement prescribed in the 2018 UK Corporate Governance Code, the Board chose to enhance and develop the long-standing channels of engagement which already exist in the organisation to ensure that the Board continues to understand the global workforce's views on a wide variety of topics, including matters relating to remuneration.

The Committee communicates with, and receives feedback from, employees through a variety of channels, including meetings with high-potential employees and attending site visits, both virtually and in person. This allows the Committee to communicate with employees on remuneration matters where appropriate. Committee members review wide-ranging data on reward across our global workforce, as well as broader information on workforce trends and culture, which is also provided to the full Board. The Committee receives in-depth reports throughout the year on colleague pay, benefits, incentives, performance management approach and broader talent policies at AstraZeneca to ensure that the Committee is informed of wider workforce remuneration when making executive pay decisions. Decisions of the Committee affecting employees, such as the annual Group scorecard outcomes, are shared with employees through internal communications as well as through the Directors' Remuneration Report. Additionally, we publish materials on executive remuneration and its implementation for employees on our intranet site. In the event that more significant changes to workforce remuneration are proposed, active engagement with employee representative groups provides feedback to help the Committee understand the impact upon the broader workforce.

When reviewing executive remuneration, the Committee takes into consideration our global workforce, looking to ensure the global total reward offering is competitive, compelling and aligned to our business performance, while supporting a culture where everyone feels valued and included, as outlined in the table on page 122. People and Sustainability is one of our three strategic priorities, and we explain in our Business Review from page 43 the role that reward plays in developing a diverse culture that encourages and rewards innovation, entrepreneurship and high performance. In carrying out its responsibilities and when setting the Policy, the Committee has taken into account the principles of the UK Corporate Governance Code and the factors outlined within Provision 40 as described in the table below.

Area	Our approach
Clarity Remuneration arrangements should be transparent and promote effective engagement with shareholders and the workforce.	The Committee believes the remuneration structures under both the current and proposed Directors' Remuneration Policy, and those for the wider workforce as set out below, are clearly understood. The Committee regularly engages with employees and shareholders and considers their feedback when reviewing the Directors' Remuneration Policy and implementation.
Simplicity Remuneration structures should avoid complexity and their rationale and operation should be easy to understand.	We operate a simple remuneration framework for our executives across both fixed and variable pay which is, where possible, aligned with the wider workforce. The purpose, structure and strategic alignment of each element of pay has been clearly laid out in our Directors' Remuneration Policy.
Risk Remuneration arrangements should ensure reputational and other risks from excessive rewards, and behavioural risks that can arise from target-based incentive plans, are identified and mitigated.	We seek to ensure alignment with long-term shareholder interests and to mitigate any potential risk through several mechanisms within our approach to executive remuneration. These include the two-year holding period under the PSP on vesting, 50% mandatory deferral into shares for three years for any annual bonus award, operation of malus and clawback provisions as summarised in our Directors' Remuneration Policy, and a shareholding requirement for two years post-cessation of employment.
Predictability The range of possible values of rewards to individual directors and any other limits or discretions should be identified and explained at the time of approving the Policy.	The Committee set out under the proposed Directors' Remuneration Policy (and our current Policy approved in May 2021) the range of possible values under specific performance scenarios.
Proportionality The link between individual awards, the delivery of strategy and the long-term performance of the company should be clear. Outcomes should not reward poor performance.	As set out on page 108, the Committee follows a robust target-setting and assessment process to ensure variable pay outcomes under the annual bonus and PSP are proportional to our wider performance. Our Directors' Remuneration Policy operated as intended in terms of Company performance and quantums during 2023, supporting the delivery of our strategy and another exceptional year for AstraZeneca.
Alignment to culture Incentive schemes should drive behaviours consistent with company purpose, values and strategy.	The Committee believes that the remuneration structures in place are aligned to the Company's performance culture and values and ensure the successful delivery of our strategy, with alignment between strategy and reward set out on page 107. For example, alongside the formulaic outcome, our annual bonus scheme for Executive Directors includes a holistic assessment of their performance and broader ESG factors, further reinforcing the importance of our Purpose and Values.

Summary of remuneration structure for employees below the Board

Element	Policy features for the wider workforce	Comparison with Executive Director and Senior Executive Team (SET) remuneration
Base pay	Our base pay is the basis for a competitive total reward package for all employees, and we review base pay annually. This review takes account of country budget, relevant market comparators, the skills, capabilities, knowledge and experience of each individual, relative to peers within the Company, and individual contribution. In setting the budget each year, we consider affordability as well as assessing how employee base pay is currently positioned relative to inflation, market rates, forecasts of any further market increases, and turnover.	The base pay of our Executive Directors and SET forms the basis of their total remuneration, and we review their base pay annually. The primary purpose of the review is to ensure base pay remains competitive and reflects the contribution each individual makes to the organisation.
Pensions and benefits	We offer market-aligned wellbeing benefit packages reflecting market practice in each country in which we operate. Where appropriate, we offer elements of personal benefit choice to our employees.	The benefit packages of our Executive Directors and SET are broadly aligned with the wider workforce of the country in which they are employed. Pension allowances for current UK Executive Directors are in line with the wider UK workforce.
Annual bonus	With the exception of our sales representatives receiving sales-related incentives, our global workforce participates in the same annual cash bonus plan as the Executive Directors and SET, with the same Group scorecard performance measures outlined on page 111. Achievement against the scorecard creates a bonus pool from which all awards are made. For employees within our commercial organisation, the country-level share of the global bonus pool also takes into account country performance against KPIs. Individual outcomes are based on manager assessment of contribution against individual objectives and peers. Awards are based on a 0-200% target range.	The ranges for Executive Directors and the SET align with the wider workforce at 0-200% of target. Half of any award to an Executive Director under the plan is subject to deferral into shares subject to a three-year holding period. One sixth of any award to the SET under the plan is deferred into shares subject to a three-year holding period.
Long-term incentives	The PSP is operated with a three-year performance period for employees at Vice-President and Senior Vice-President level, with the same performance measures that apply to Executive Director and SET PSP awards (outlined from page 115). A proportion of our workforce below this level is eligible to be considered for other long-term incentive awards, such as restricted stock awards. 35% of our global employee population are eligible to receive an award under our Long-term incentive plans.	PSP awards to Executive Directors and the SET are granted under the same plan as PSP awards granted to Vice-Presidents and Senior Vice-Presidents. PSP awards to Executive Directors and the SET are subject to a two-year holding period following the three-year performance period.

Change in Director remuneration compared to other employees

In the table below, as per the requirements of the Companies (Directors' Remuneration Policy and Directors' Remuneration Report) Regulations 2019, changes to the base pay (or fees), taxable benefits and annual bonus of Directors are compared to employees for the previous financial year. The regulations require comparison between the remuneration of each Director and that of all employees of the parent company on a full-time equivalent basis. As AstraZeneca PLC has no direct employees, and in line with our disclosure approach in prior years to changes in employee remuneration, the selected comparator group is comprised of employees in the UK, US and Sweden who represent approximately 40% of our total employee population. We consider that this group is representative of the Group's major science, business and enabling units. These employee populations are also well balanced in terms of seniority and demographics.

	Change in 2023 against 2022 (%)			Change in 2022 against 2021 (%)			Change in 2021 against 2020 (%)			Change in 2020 against 2019 (%)		
	Base pay/fees	**Benefits**	**Annual bonus**	Base pay/fees	Benefits	Annual bonus	Base pay/fees	Benefits	Annual bonus	Base pay/fees	Benefits	Annual bonus
Executive Directors												
Pascal Soriot	**4.5**	**3.1**	**-9.2**	3.0	10.5	-0.8	3.0	1.1	35.9	0.0	-2.7	20.0
Aradhana Sarin[1]	**4.5**	**-71.6**	**-9.2**	147.2	2,753.2	169.3	–	–	–	–	–	–
Non-Executive Directors												
Leif Johansson[2]	**-67.5**	**-216.7**	**–**	0.0	-6.4	–	0.0	1.4	–	0.0	1.4	–
Michel Demaré[3]	**268.9**	**–**	**–**	7.0	–	–	18.7	–	–	247.2	–	–
Euan Ashley[4]	**8.0**	**–**	**–**	6.8	–	–	300.0	–	–	–	–	–
Philip Broadley	**0.0**	**–**	**–**	15.6	–	–	16.9	–	–	2.8	–	–
Deborah DiSanzo	**0.0**	**–**	**–**	11.1	–	–	0.0	–	–	0.0	–	–
Diana Layfield[5]	**0.0**	**–**	**–**	19.9	–	–	525.6	–	–	0.0	–	–
Anna Manz[6]	**–**	**–**	**–**	–	–	–	–	–	–	–	–	–
Sheri McCoy	**11.7**	**–**	**–**	23.6	–	–	3.0	–	–	0.0	–	–
Tony Mok	**0.0**	**–**	**–**	6.8	–	–	0.0	–	–	0.0	–	–
Nazneen Rahman	**3.0**	**–**	**–**	18.2	–	–	11.0	–	–	0.0	–	–
Andreas Rummelt[7]	**0.0**	**–**	**–**	172.2	–	–	–	–	–	–	–	–
Marcus Wallenberg	**0.0**	**–**	**–**	17.1	–	–	3.6	–	–	0.0	–	–
Employees	**7.0**	**7.0**	**3.2**	6.0	6.0	19.3	4.9	4.9	44.4	4.1	4.1	-11.6

[1] Aradhana Sarin joined the Board of AstraZeneca PLC on 1 August 2021. Percentage changes are based on the totals reported on page 109.
[2] Benefits for Leif Johansson are office costs. Mr Johansson retired from the Board on 27 April 2023.
[3] Michel Demaré was appointed Chair of the Board on 27 April 2023.
[4] Euan Ashley was appointed on 1 October 2020.
[5] Diana Layfield was appointed on 1 November 2020.
[6] Anna Manz was appointed on 1 September 2023.
[7] Andreas Rummelt was appointed on 1 August 2021.

Remuneration in the wider context *continued*

CEO and employee pay ratios

The table below sets out the ratios of the CEO's realised pay to the equivalent pay for the lower quartile, median and upper quartile UK employees (calculated on a full-time equivalent basis). The ratios have been calculated in accordance with the Companies (Miscellaneous Reporting) Regulations 2018 (the Regulations).

Year	Method	25th percentile pay ratio	50th percentile pay ratio	75th percentile pay ratio
2023	**Option A**	**271:1**	**182:1**	**121:1**
2022	Option A	230:1	159:1	107:1
2021	Option A	240:1	162:1	106:1
2020	Option A	284:1	197:1	130:1
2019	Option A	280:1	190:1	123:1
2018	Option A	230:1	160:1	103:1

The comparison with UK employees is specified by the Regulations. This group represents approximately 12% of our total employee population. The Regulations provide flexibility to adopt one of three methods of calculation; we continue to use Option A which is a calculation based on all UK employees on a full-time equivalent basis as we consider this to be the most appropriate method of comparison and in line with the calculation of CEO's realised pay (shown on page 109 for 2023). The ratios are based on total pay, which includes base pay, benefits, bonus and Long-term incentive (LTI) awards with all elements adjusted on a full-time equivalent basis if required. Our calculations are in line with the single figure methodology for UK employees where possible, with quartile data determined as at 31 December 2023. Calculations for UK employees are based on actual base pay and benefits data for the year, with estimates only used for annual bonus outcomes and LTI dividend equivalents. These estimates are based on the 2023 bonus budget and projected payouts, and anticipated dividends on LTI awards, respectively. No elements of pay have been excluded from the calculation, which has been determined following the approach of previous years.

	CEO						**UK employees**	
			25th percentile		50th percentile		75th percentile	
Pay data[1] (£'000)	Base pay	Total pay	Base pay	Total pay	Base pay	Total pay	Base pay	Total pay
2023	**1,429**	**16,853**	**46**	**62**	**65**	**92**	**88**	**139**
2022	1,367	15,323	48	67	67	96	88	143
2021	1,327	13,858	43	58	61	86	86	130
2020	1,289	15,447	41	54	60	78	82	119
2019	1,289	14,330	38	51	53	75	71	117
2018	1,251	11,356	36	49	50	71	70	110

[1] The prior years' figures have not been restated for subsequent share price changes (as shown in the CEO realised pay for 2023 table on page 109).

The pay ratios at each quartile were higher in 2023 when compared to last year, due to a combination of significant share price appreciation over the performance period of the CEO's 2021 Performance Share Plan award (representing 23% of the overall single figure), which was granted at a higher face value than the 2020 award (650% of base pay versus 550%), and a lower overall bonus pool for employees in 2023 based on Scorecard performance impacting total pay.

Given the Committee's focus on ensuring CEO pay is performance-driven (and as demonstrated again this year), the majority of the single figure is comprised of variable pay and therefore may vary significantly year-on-year due to annual bonus and PSP outcomes, as well as share price movements. The Committee therefore also considers the CEO pay ratio without the LTI impact. When excluding LTI, the pay ratio of the CEO compared to the median UK employee is 52:1 – in line with the trend across prior years.

	2018	2019	2020	2021	2022	**2023**
50th percentile ratio excluding LTI	51:1	51:1	53:1	57:1	51:1	**52:1**

The Committee remains mindful of the debate on executive pay and seeks to ensure that when determining the remuneration of the CEO it finds the right balance when rewarding performance in a highly competitive global executive talent market. It believes the median ratio is consistent with the pay and progression policies for UK employees, which ensures our total reward offering is competitive and compelling, and aligned to individual and business performance as set out on page 121.

Relative importance of spend on pay

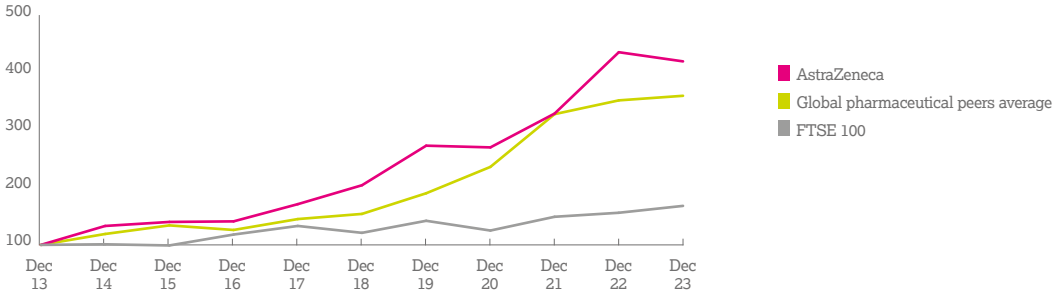
The table below shows the remuneration paid to all employees in the Group, including the Executive Directors, and expenditure on shareholder distributions through dividends. The figures have been calculated in accordance with the Group Accounting Policies and drawn from either the Group's Consolidated Statement of Comprehensive Income on page 148, or its Consolidated Statement of Cash Flows on page 151. Further information on the Group's Accounting Policies can be found from page 152.

	2023	2022	Difference in spend between years $m	Difference in spend between years %
Total employee remuneration	**12,335**	11,531	804	7
Distributions to shareholders: dividends paid	**4,481**	4,364	117	3

Total shareholder return (TSR)

The graph below compares the TSR performance of the Company over the past 10 years with the TSR of the FTSE 100 Index and our global pharmaceutical peers. This graph is re-based to 100 at the start of the relevant period. These indices represent appropriate reference points for AstraZeneca reflecting our primary listing as a constituent of the FTSE 100 and a comparison against our global pharmaceutical peers. The pharmaceutical comparator group is also used to assess relative TSR performance for PSP awards to be granted in 2024 and consists of AbbVie, Amgen, Astellas, BMS, Daiichi Sankyo, Eli Lilly, Gilead, GSK, Johnson & Johnson, Merck KGaA, Moderna, MSD, Novartis, Novo Nordisk, Pfizer, Roche, Sanofi and Takeda. CEO remuneration over the same 10-year period is shown after the TSR graph.

TSR over a 10-year period



CEO total remuneration table

Year	CEO	CEO realised pay £'000	Annual bonus payout against maximum opportunity %	LTI vesting rates against maximum opportunity %
2023	Pascal Soriot	16,853[1]	79.5	88
2022	Pascal Soriot	15,085[2]	92	97
2021	Pascal Soriot	15,740	95	95
2020	Pascal Soriot	15,934	90	99
2019	Pascal Soriot	15,307	83	90
2018	Pascal Soriot	12,868	83	79
2017	Pascal Soriot	10,429	87	81
2016	Pascal Soriot	14,342[3]	54	95
2015	Pascal Soriot	7,963	97	78
2014	Pascal Soriot	3,507	94	–

[1] The 2023 realised pay is shown on page 109.
[2] This figure has been revised using the average closing share price over the three-month period to 31 December 2023, as explained on page 109.
[3] This figure includes shares awarded to Mr Soriot in 2013 under the AZIP to compensate him for LTI awards from previous employment forfeited on his recruitment as the Company's CEO.

Governance

Committee membership

The Committee members as at 31 December 2023 were Sheri McCoy (Chair of the Committee), Philip Broadley, Nazneen Rahman and Michel Demaré. Ms Rahman joined the Committee on 1 May 2023. Leif Johansson was also a member of the Committee until he retired from the Board on 27 April 2023. The Deputy Company Secretary acts as secretary to the Committee. The Committee met six times in 2023 and members' attendance records are set out on page 77. During the year, the Committee was materially assisted, except in relation to their own remuneration, by the CEO; the CFO; the SVP, Finance, Group Controller & Head of Global Finance Services; the SVP, Group Planning & Finance Business Partnering; the SVP, Global Portfolio/Project Management and Strategic Planning; the VP, Global SHE & Operations Sustainability; the Chief Human Resources Officer, Chief Compliance Officer and General Counsel; the SVP, Reward, Inclusion and Talent Acquisition; the Senior Director Executive Reward; the Company Secretary; the Deputy Company Secretary; and the Non-Executive Directors forming the Science and Sustainability Committees. The Committee's independent adviser attended all Committee meetings.

Independent adviser to the Committee

The Committee reappointed Willis Towers Watson (WTW) as its independent adviser. WTW were first appointed in September 2018, following a tender process undertaken in 2018. The tender process involved submission of written proposals, followed by shortlisted candidates being interviewed by both Committee members and members of the Company's management. WTW's service to the Committee during 2023 was provided on a time spent basis at a cost to the Company of £252,322, excluding VAT. During 2023, WTW also provided pensions advice and administration, and advice and support to management including market data to assist in the annual employee pay review and global pay survey data. WTW have no other connection with the Company or individual Directors. The Committee reviewed the potential for conflicts of interest related to WTW and judged that there were no conflicts. WTW is a member of the Remuneration Consultants Group, which is responsible for the stewardship and development of the voluntary code of conduct in relation to executive remuneration consulting in the UK. The principles on which the code is based are transparency, integrity, objectivity, competence, due care and confidentiality. WTW adheres to the code.

Governance *continued*

Malus and clawback

The Committee regularly reviews the Company's approach to malus and clawback and market practice in this area, and our Global Standard on Malus and Clawback sets out the trigger events and the time periods these provisions may apply to. As a condition of annual bonus and Performance Share Plan awards, the Committee seeks active acceptance of the malus and clawback terms applicable each year before any payment or grant is made to an individual. Additionally, the Committee's practice is to fully document and evidence any application of malus or clawback to show that it has not acted arbitrarily, capriciously or irrationally in making any determination. This allows the Committee to:

> Reduce the amount of bonus or PSP payable, or clawback some or all of any award in the circumstances and periods as set out within our Global Standard on Malus and Clawback.
> Cancel bonus eligibility.
> Prevent vesting of the PSP and/or DBP awards by holding the shares in AstraZeneca's LTI nominee platform to prevent transactions.

Shareholder voting at the AGM

At the Company's AGM on 27 April 2023, shareholders voted in favour of a resolution to approve the Annual Statement of the Chair of the Remuneration Committee and the Annual Report on Remuneration for the year ended 31 December 2022. The Directors' Remuneration Policy was approved by shareholders at the Company's AGM on 11 May 2021. The Policy can be found on the Company's website, www.astrazeneca.com/annualreport2022.

Resolution	Votes for	% for	Votes against	% against	Total votes cast	% of issued share capital voted	Withheld votes
Ordinary Resolution to approve the Annual Statement of the Chair of the Remuneration Committee and the Annual Report on Remuneration for the year ended 31 December 2022 (2023 AGM)	1,195,261,107	94.23	73,125,360	5.77	1,268,386,467	81.84	850,827
Ordinary Resolution to approve the Directors' Remuneration Policy (2021 AGM)	564,935,789	60.19	373,708,277	39.81	938,644,066	71.50	21,415,088

The response to the shareholder vote to approve the Directors' Remuneration Policy at the 2021 AGM is outlined in the 2021 Directors' Remuneration Report in our 2021 Annual Report.

Directors' service contracts and letters of appointment

The notice periods and unexpired terms of Executive Directors' service contracts at 31 December 2023 are shown in the table below.

Executive Director	Effective date of service contract	Unexpired term at 31 December 2023	Notice period
Pascal Soriot	15 December 2016	12 months	12 months
Aradhana Sarin	1 August 2021	12 months	12 months

None of the Non-Executive Directors has a service contract but each has a letter of appointment. In accordance with the Company's Articles, following their appointment, all Directors must retire at each AGM and may present themselves for re-election. The Chair of the Board may terminate his appointment at any time, on three months' notice. None of the other Non-Executive Directors has a notice period or any provision in their letters of appointment giving them a right to compensation upon early termination of appointment.

Basis of preparation of this Directors' Remuneration Report

This Directors' Remuneration Report has been prepared in accordance with the Large and Medium-sized Companies and Groups (Accounts and Reports) (Amendment) Regulations 2013 (as amended) (the 2013 Regulations). A resolution to receive and approve the Directors' Remuneration Report will be proposed at the AGM on 11 April 2024.

On behalf of the Board

A C N Kemp
Company Secretary
8 February 2024

Directors' Remuneration Policy

Changes to Remuneration Policy and its implementation

The table below summarises the main proposed changes to the Directors' Remuneration Policy (the Policy), the intended changes to implementation of the Policy in 2024 and the rationale for each change.

The full Policy that shareholders will be asked to approve is set out from page 128.

2024 Policy Summary

Element	Proposed change to Policy	Implementation in 2024	Rationale for change
Base pay	No change.	Increase for CEO or CFO in line with the workforce.	
Pension	No change.	Pension allowance of 11% of base pay, aligned with the wider UK workforce.	
Annual bonus	Increase maximum opportunity from 250% to 300% of base pay.	CEO bonus: > Target: 150% of base pay (2023: 125%) > Max: 300% of base pay (2023: 250%) CFO bonus: > Target: 100% of base pay (No change) > Max: 200% of base pay (No change)	Increased maximum opportunity to bring AstraZeneca in line with relevant market pay levels, reflecting the size, scope and ambition of the Company, enabling market competitive opportunities underpinned by exceptional performance.
	Any shares awarded under the Deferred Bonus Plan (DBP) will now ordinarily be retained in the event of a resignation of an Executive Director and vest at the end of the relevant deferral period, with the Committee retaining its discretion to lapse awards on resignation should it deem it necessary to do so.		Simplifies the operation of the DBP and aligns Executive Directors with the treatment of deferred shares for the other members of the Senior Executive Team (SET). The Committee currently has discretion to allow awards to be retained by an Executive Director following their resignation, but the default treatment under the previous Policy is for any awards to lapse.
Performance Share Plan (PSP)	Increase maximum opportunity from 650% to 850% of base pay.	Increase CEO PSP award from 650% to 850% of base pay. Increase CFO PSP award from 450% to 550% of base pay.	Recognition of CEO's and CFO's criticality to future business success and delivery of our 2030 Bold Ambition. Continuing to close the gap to market pay levels and address the pay compression issue within the competitive global and European pharmaceutical talent pool. Increased weighting on long-term performance and further shareholder alignment with a greater emphasis on variable pay, reflecting the size, scope and ambition of the Company, enabling market competitive opportunities underpinned by exceptional performance.
Shareholding requirements		Increase shareholding requirements to mirror the maximum value of their variable pay opportunity (annual bonus and long-term incentives): > Shareholding requirement for CEO increases from 650% to 1,150% of base pay > Shareholding requirement for CFO increases from 450% to 750% of base pay Executive Directors will have a period of five years to build a shareholding to meet this requirement. For two years following cessation of employment, Executive Directors are required to hold shares to the value of their shareholding requirement that applied at the cessation of their employment; or, in cases where the individual has not had sufficient time to build up shares to meet their guideline, the actual level of shareholding at cessation.	Ensures further alignment with shareholders during and post-employment.

Remuneration Policy

This section sets out the Policy proposed for approval by shareholders at the Company's AGM on 11 April 2024. Subject to shareholder approval, the Policy is intended to remain in effect for three years from the 2024 AGM. The previous page summarises how the new Policy differs from the Policy which was approved by shareholders at the 2021 AGM.

Setting the Policy

The Remuneration Committee (the Committee) is responsible for setting overall remuneration policy and makes decisions about specific remuneration arrangements in the broader context of employee remuneration throughout the Group. The Committee reviews remuneration data for the wider workforce at several points during the year, including ratios of average employee pay to senior executive pay; bonus and base pay data; as well as gender and geographical data in relation to base pay and variable compensation. This includes a workforce remuneration review to understand the ways in which reward is differentiated by contribution across the population.

Remuneration for all roles within the organisation is benchmarked against that for comparable roles in similar organisations and in the employee's local market. Executive Directors' remuneration is benchmarked against global and European pharmaceutical peer groups. In reviewing the base pay of Executive Directors, the Committee considers the overall level of any base pay increases being awarded to employees in the Executive Director's local market in the relevant year. In setting, reviewing and implementing the Policy, the Committee seeks independent advice and ensures that no Director makes decisions relating to their own remuneration. The Committee connects with the Audit Committee to ensure that the Group's remuneration policies and practices achieve the right balance between appropriate incentives to reward good performance, management of risk, and the pursuit of the Company's strategic objectives.

The Board as a whole takes responsibility for gathering the views of AstraZeneca's workforce, and does so through multiple channels of engagement. While the Committee does not consult employees specifically when setting the Policy, the Company engages with employees, either on a Group-wide basis or in the context of smaller focus groups, to solicit feedback generally on a wide range of matters, including pay. Details of our approach to executive remuneration and its implementation are available to employees on our intranet site, Nucleus. Many employees are also shareholders in the Company and therefore have the opportunity to vote on the Policy at the 2024 AGM.

In all aspects of its work, the Committee considers both the external environment in which the Company operates and the guidance issued by organisations representing institutional shareholders. It consults the Company's major investors on general and specific remuneration matters and provides opportunities for representatives of those investors to meet the Chair of the Committee and other Committee and Board members. It is the Company's policy to seek input from major shareholders on an ad hoc basis when significant changes to remuneration arrangements are proposed. A thorough consultation process was undertaken as this Policy was developed, with investors' feedback on the Committee's proposals influencing the final Policy. The Company's shareholders are encouraged to attend the AGM and any views expressed will be considered by Committee members.

Legacy arrangements

The Committee may approve remuneration payments and payments for loss of office on terms that differ to the terms in the Policy where the terms of the payment were agreed before the Policy came into effect or were agreed at a time when the relevant individual was not a Director of the Company (provided that, in the opinion of the Committee, the agreement was not entered into in consideration for the individual becoming a Director of the Company). This includes the exercise of any discretion available to the Committee in connection with such payments. For these purposes, payments include the Committee satisfying awards of variable remuneration, including share awards, in line with the terms agreed at the time the award was granted.

Minor amendments

The Committee may make minor amendments to the arrangements for Directors described in the Policy without shareholder approval for regulatory, exchange control, tax or administrative purposes or to take account of a change in legislation.

Fixed elements of remuneration: base pay, benefits and pension

Base pay

Purpose and link to strategy	Operation	Maximum opportunity
Intended to be sufficient to attract, retain and develop high-calibre individuals	When setting base pay, the Committee gives consideration to a number of factors, including (but not limited to): > recognition of the value of an individual's personal performance and contribution > the individual's skills and experience > internal relativities > conditions in the relevant external market Base pay is normally reviewed annually with any change usually taking effect from 1 January.	While there is no formal maximum, any increase in base pay will normally be in line with the percentage increase awarded to the employee population within the individual's country location. A higher increase may be made if the Committee considers it appropriate, for example to reflect: > an increase in the scope and/or responsibility of the individual's role; or > development of the individual within the role.

Benefits

Purpose and link to strategy	Operation	Maximum opportunity
Intended to provide a market-competitive benefits package sufficient to attract, retain and develop high-calibre individuals	UK Executive Directors may be provided with a fund, the value of which is based on a range of benefits, including private medical provision for themselves, partner and children; life assurance; company car; additional holidays; and other additional benefits made available by the Company from time to time that the Committee considers appropriate based on the Executive Director's circumstances. A Director may choose to take a proportion or the entirety of the fund as cash. Non UK-based Executive Directors will receive a range of benefits (or a fund of equivalent value) comparable to those typically offered in their local market. Depending on local market practices, they may be able to elect to take the fund as cash or elect to take one or more of these benefits and take the balance as cash. At its discretion, the Committee may consider support towards reasonable costs associated with relocation and/or provide an allowance towards reasonable fees for professional services such as legal, tax, property and financial advice. The Company may also fund the cost of a driver and car for Executive Directors and any expenses deemed to be taxable which are reasonably incurred in the course of the Company's business, together with any taxes thereon. The Company provides directors' and officers' liability insurance and an indemnity to the fullest extent permitted by law and the Company's Articles.	The maximum value of the benefits available will be equivalent to the cost to the Company of the suite of benefits available in the local market at the time. The value of the support towards the costs of relocation, professional fees and other costs will be the reasonable costs associated with the Executive Director's particular circumstances. The maximum value of the directors' and officers' liability insurance and third-party indemnity insurance is the cost at the relevant time. While the Committee has not set an overall level of benefit provision, the Committee keeps the benefit policy and benefit levels under review.

Pension

Purpose and link to strategy	Operation	Maximum opportunity
Provision of retirement benefits to attract, retain and develop high-calibre individuals	UK-based Executive Directors receive a pension allowance based on a percentage of base pay, which the Director may elect to pay into a pension scheme (or an equivalent arrangement) or take as cash. Non UK-based Executive Directors will receive an allowance for the purpose of providing retirement benefits in line with local market practice. A non UK-based Executive Director may be offered the opportunity to elect to take some or all of the allowance as cash.	The maximum pension allowance that may be provided to UK-based Executive Directors shall be capped at a level in line with the pension arrangements of other UK employees. The maximum value that may be provided to non UK-based Executive Directors will be aligned with employees in the relevant local market.

Variable elements of remuneration: annual bonus and Long-term incentive (LTI)

Annual bonus and Deferred Bonus Plan (DBP)

Purpose and link to strategy	Operation	Maximum opportunity
The annual bonus incentivises and rewards short-term performance against Group targets and individual objectives that are closely aligned to the Company's strategy **The deferred share element of the annual bonus is designed to align Executive Directors' interests with those of shareholders**	Annual bonus awards are conditional on performance. Performance is measured over one year and the bonus, if awarded, is paid after the year end. Normally, half of the bonus is delivered in cash and half is delivered in shares, which are deferred for three years under the DBP. DBP awards may consist of Ordinary Shares or American Depositary Shares (ADSs) depending on the country in which the Director is based. In line with the approach for other employees, a Director may be offered the opportunity to elect to defer part of their cash bonus into pension. Stretching Group targets are set annually by the Committee based on the key strategic priorities for the year. The performance targets form a Group scorecard, which is closely aligned to the Company's strategy, and are currently designed to reward scientific, commercial and financial delivery. Performance is assessed in relation to each performance target on a standalone basis. A threshold level of performance is specified; if performance falls below this level, there will be no payout for that proportion of the award. Payout levels are determined by the Committee after the year end, based on performance against the Group scorecard targets as well as each Executive Director's individual performance. The Committee may use its discretion to ensure that a fair and balanced outcome is achieved, taking into account the overall performance of the Company and the experience of shareholders. On vesting of the deferred shares, additional shares (or cash) equivalent in value to the dividends that would have been paid during the deferral period will be awarded to the Director. These additional shares (or cash) may be calculated on a cumulative dividend reinvestment basis or otherwise. Malus and clawback provisions apply to the annual bonus and shares awarded under the DBP, as set out within the AstraZeneca Global Standard on Malus and Clawback. The triggers whereby the Committee has the discretion to apply malus and/or clawback include: a) serious misconduct; b) material misstatement or restatement of the audited results of the Group; or c) AstraZeneca suffering: i) significant reputational damage; ii) a material adverse effect on its financial position; or iii) a material adverse effect on its business opportunities and prospects for sustained performance or profitability.	The maximum annual bonus amount that can be awarded is equivalent to 300% of base pay.

Long-term incentive (LTI): Performance Share Plan (PSP)

Purpose and link to strategy	Operation	Maximum opportunity
The PSP is designed to align the variable pay of Executive Directors with the successful execution of the Company's strategy over the longer term	PSP awards are conditional awards and may be granted over Ordinary Shares or ADSs depending on the country in which the Director is based. Vesting is dependent on the achievement of stretching performance targets and continued employment, as further described in the Treatment of LTI and Deferred Bonus Plan awards on cessation of employment section on page 136. Stretching performance targets are set by the Committee at the beginning of the relevant performance period. Performance measures are closely aligned to the Company's strategy and are currently designed to reward scientific, ESG, commercial and financial success. The Committee will consult with major shareholders in advance if it proposes any material changes to the PSP performance measures. When selecting the performance measures for each award, the Committee weights the performance measures as it considers appropriate, taking into account strategic priorities. The Committee's intention is to exercise appropriate judgement both when setting performance targets and assessing formulaic outcomes, in particular so that the experience of shareholders over time is taken into account. Performance is normally assessed over a three-year period commencing on 1 January in the year of grant. Shares are subject to a two-year holding period following the performance period, so vesting takes place on the fifth anniversary of grant. During the holding period, no further performance measures apply. Typically, 20% of the proportion of a PSP award linked to a performance measure will vest on achievement of the threshold level of performance and 100% will vest if the maximum level of performance is achieved in full. For relative measures (such as relative total shareholder return (TSR)) the threshold performance will be performance at or above median, and maximum performance will usually be set as achievement of performance at the upper quartile level of the peer group. Where a performance measure permits, there will be further vesting points between threshold and maximum vesting levels. The Committee may (acting fairly and reasonably) adjust or waive a performance target if an event occurs that causes it to believe that the performance target is no longer appropriate. Additional shares (or cash) equivalent in value to the dividends that would have been paid on the vesting shares during the performance and holding periods will be awarded to the Director. These additional shares (or cash award) may be calculated on a cumulative dividend reinvestment basis or otherwise. Malus and clawback provisions apply to all PSP awards, as set out within the AstraZeneca Global Standard on Malus and Clawback. The triggers whereby the Committee has the discretion to apply malus and/or clawback include: a) serious misconduct; b) material misstatement or restatement of the audited results of the Group; or c) AstraZeneca suffering: i) significant reputational damage; ii) a material adverse effect on its financial position; or iii) a material adverse effect on its business opportunities and prospects for sustained performance or profitability.	The maximum market value of shares that may be awarded under the PSP in respect of any year is equivalent to 850% of the participant's annual base pay at the date of grant.

UK Employee Share Plans

Share Incentive Plan (SIP)

Purpose and link to strategy	Operation	Maximum opportunity
Encouraging employee share ownership	The Company operates an HM Revenue & Customs (HMRC)-approved SIP whereby UK employees, including Executive Directors, may elect to save a regular amount to be used to purchase shares. The Company currently grants one matching share in respect of every four shares purchased by the participant.	Participants may contribute up to £150 per month from pre-tax pay or such other maximum amount as determined by the Company within the parameters of applicable legislation.

Save As You Earn Share Option Scheme (SAYE)

Purpose and link to strategy	Operation	Maximum opportunity
Encouraging employee share ownership	The Company operates an HMRC-approved SAYE whereby UK employees, including Executive Directors, may save a regular amount over three or five years and are granted options to purchase shares at the end of the saving period. A maximum discount of 20% to the market price prevailing at the date of the commencement of the scheme applies to the option price.	Participants may save up to £500 per month from post-tax pay or such other maximum amount as determined by the Company within the parameters of applicable legislation. The maximum opportunity available to participants in a non UK-based all-employee share scheme will be determined by the Company within the parameters of applicable legislation.

Differences in remuneration policy for other employees

The Company's approach to determining and reviewing the base pay of the Executive Directors and the employee population as a whole is the same. On an annual basis, the base pay for individual roles are reviewed in the context of the external market. AstraZeneca participates in annual global compensation surveys, which provide benchmarking data for all roles within the organisation, ensuring a robust base pay review process for all roles. The Company seeks to provide an appropriate range of competitive benefits, including healthcare and pension, to all employees (including Executive Directors) in the context of their local market.

Employees globally may be eligible for LTI awards in the form of the PSP and/or restricted stock units depending on their level and market. The occupants of senior roles in the Company are currently eligible for PSP awards – these are the leaders who have the ability to directly influence the execution of the Company's strategic goals. A proportion of each Senior Executive Team (SET) member's annual bonus is deferred into shares under the DBP. An LTI award may be used for the same purpose as described above on the recruitment of employees, or for employees other than Directors, for retention.

Remuneration scenarios for Executive Directors

The charts below illustrate how much the current Executive Directors could receive under different performance scenarios in 2024. Dividend equivalents payable in respect of PSP awards are not included in the scenarios. To compile the charts, the following assumptions have been made:

Minimum remuneration

> Base pay is that applicable in 2024.
> Taxable benefits are those included in the Executive Directors' realised pay table for 2023, as set out in the table on page 106.
> Pension value is 11% of base pay.

	Base pay £'000	Taxable benefits £'000	Pension £'000	Total £'000
Pascal Soriot (CEO)	1,486	140	163	1,789
Aradhana Sarin (CFO)	951	46	105	1,102

Remuneration for performance in line with the Company's expectations

> Annual bonus payout is equivalent to 150% of 2024 base pay for Pascal Soriot and 100% of 2024 base pay for Aradhana Sarin.
> PSP share award vesting at 425% of 2024 base pay for Pascal Soriot and 275% of 2024 base pay for Aradhana Sarin (representing 50% of the face value of the PSP award).

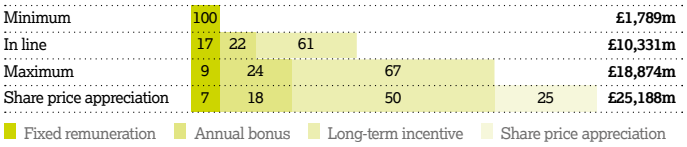
Maximum remuneration

> Annual bonus payout equivalent to 300% of 2024 base pay for Pascal Soriot and 200% of 2024 base pay for Aradhana Sarin.
> PSP share award vesting at 850% of 2024 base pay for Pascal Soriot and 550% of 2024 base pay for Aradhana Sarin (representing 100% of the face value of the PSP award).

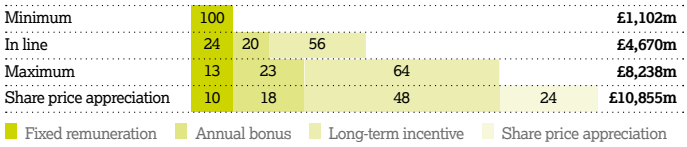
Share price appreciation

> The potential impact of share price appreciation on PSP award values in the maximum remuneration scenario is illustrated, assuming a 50% increase on the share price at grant.

Pascal Soriot (%)



Aradhana Sarin (%)



Approach to recruitment remuneration for Executive Directors

On the recruitment of a new Executive Director, the Committee seeks to pay no more than is necessary to attract and retain the best candidate available, within the limits of our approved Policy. The Committee will offer a remuneration package that it considers appropriate in the particular circumstances of the recruitment, giving due regard to the interests of the Company's shareholders and taking into account factors such as typical market practice, existing arrangements for the other Executive Directors, internal relativities and market positioning.

The pharmaceutical industry is global, and future Executive Directors might be recruited from organisations with pay structures and practices that differ from AstraZeneca's usual Policy. The Committee believes that it is in the interests of shareholders for it to retain an element of flexibility in its approach to recruitment to enable it to attract the best candidates; however, this flexibility is limited.

The Committee may find it necessary to compensate a new recruit for forfeiture of entitlements as a consequence of the recruit leaving their previous employment to join AstraZeneca. There is no limit to the value of such compensation arrangements, however the Committee will rigorously consider the appropriate value so as not to pay more than the compensation being forfeited. The Committee will seek to offer a package weighted towards equity in the Company, and will usually seek to use the PSP as the primary vehicle for buy-out awards where possible; however, the precise nature of the compensation arrangement will depend on the type of entitlement being forfeited. The arrangement might therefore comprise a combination of cash, share awards granted under the PSP (subject to the Policy maximum), and other restricted shares. The Committee may introduce a one-off arrangement as permitted under Listing Rule 9.4.2 in order to deliver a restricted share award. Malus and clawback provisions would normally apply to buy-out awards, for the same reasons as detailed under the DBP and PSP.

Restricted share awards will only be granted as part of the recruitment arrangements to compensate for loss of remuneration opportunities suffered on leaving previous employment.

The Committee considers whether the lost incentives were subject to performance targets and their probability of vesting. The normal approach is to seek broadly to mirror the timing of vesting and application of performance targets of the compensation being forfeited. For example, a buy-out award may be granted without performance conditions where the foregone compensation was not subject to performance testing, however the Committee may apply appropriate performance measures if it considers it appropriate.

The Committee may allow a restricted share award to vest in tranches at different dates. If no performance targets are attached to a compensatory award, it will vest in full if the individual remains in employment on the vesting date. On vesting, additional shares (or cash) equivalent in value to the dividends that would have been paid during the vesting period will be awarded to the Director. These additional shares (or cash) may be calculated on a cumulative dividend reinvestment basis or otherwise.

All other aspects of a new recruit's compensation opportunity will be subject to the maximum variable pay stated in the Policy table. In the case of Group employees who are promoted internally to the position of Executive Director, the Committee expects to honour all remuneration arrangements entered into before the promotion.

The Company may reimburse the costs of financial planning, legal and tax advice and reasonable costs incurred on recruitment, including relocation support.

Service contracts for Executive Directors

Save as noted below, it is not intended that service contracts for new Executive Directors will contain terms that are materially different from those summarised below or contained in the Policy. The contractual obligations below are applicable to each of the current Executive Directors unless stated otherwise. Copies of the Executive Directors' service contracts can be inspected at the Company's Registered Office.

Notice period	The service contracts of Executive Directors do not have a fixed term but the Company may terminate employment by giving not less than 12 months' written notice. The Company may agree on appointment that any notice given by the Company will not expire prior to the second anniversary of the commencement date of the Executive Director's appointment. Executive Directors may terminate their employment on 12 months' written notice.
Payments in lieu of notice	The Company may terminate an Executive Director's contract at any time with immediate effect and pay a sum in lieu of notice. This sum will consist of (i) the base pay that they would have been entitled to receive during the notice period and, (ii) the cost to the Company of funding the benefit arrangements for this period, including the Company's contribution in respect of pension.
Garden leave	The Company has the right to place the Executive Director on 'garden leave'.
Summary termination	The Company may terminate employment summarily in particular defined circumstances, such as gross misconduct, with no further payment.
Payments in lieu of holiday	If, on termination, the Executive Director has exceeded their accrued holiday entitlement, the value of this excess may be deducted by the Company from any sums payable. If the Executive Director has unused holiday entitlement, the Committee has discretion to require the Executive Director to take such unused holiday during any notice period or make a payment in lieu of it calculated in the same way as the value of any excess holiday.
Directors' and officers' liability insurance	Directors' and officers' liability insurance and an indemnity, to the fullest extent permitted by law and the Company's Articles, is provided for the duration of an Executive Director's employment and for a minimum of five years following termination.

Principles of payment for loss of office for Executive Directors

The Company does not make additional payments for loss of office, other than, as appropriate, payments in lieu of notice as described above, or payments in respect of damages if the Company terminates an Executive Director's service contract in breach of contract (taking into account, as appropriate, the Director's responsibility to mitigate any losses). The Committee has discretion to award payments in certain circumstances, as set out on the following page, depending on the nature of the termination and the Executive Director's performance. The LTI plans are governed by plan rules, which define how individual awards under those plans should be treated upon termination of employment and corporate activity, including sale of a business outside the Group. The treatment of awards in these circumstances will be determined according to the rules and subject to Committee discretion. Aside from the reasons relating to corporate activity, generally, awards under LTI plans will be allowed to vest for those Executive Directors who leave the Company in circumstances such as ill health, injury, disability, redundancy or retirement, or any other reason the Committee considers appropriate, or where employment terminates by reason of the Executive Director's death (see the table on page 136 for further information). Awards that are allowed to vest will typically be pro-rated for time, subject to the Committee's discretion. In addition to any payment in lieu of notice, the individual components of remuneration and other payments which may be payable on loss of office are set out on the following pages, subject to the terms of any applicable bonus rules or share plan rules. No awards will vest where an individual has been dismissed for cause.

Annual bonus
At the discretion of the Committee, an Executive Director may receive a bonus for the performance year in which they leave the Company. Typically, this sum will reflect a bonus pro-rated for the part of the year in which they worked. This will depend on the circumstances, including an assessment of performance against the scorecard and the Executive Director's performance in the relevant period and the circumstances of their departure, and may be in such proportion of cash and/or shares as the Committee will determine. The deferred share element of previous bonuses granted, and any deferred share element of the bonus awarded in respect of the departing year, may still vest for the benefit of the departing Executive Director at the end of the period of deferral. The Committee has the discretion to accelerate and/or retain the deferral period and allow shares to vest for the benefit of the Executive Director on their departure and/or in accordance with the vesting schedule as the case may be.

LTI plans
The LTI plan rules envisage circumstances under which some, all or none of the shares held under LTI plans will vest in connection with departure. The exact timing and number of shares vesting will depend on the circumstances, including the reason for leaving (as set out in the table on the next page) and may be subject to Committee discretion, depending on what it considers to be fair and reasonable in the circumstances.

Restricted share awards
The treatment on termination will depend upon the terms of the individual Executive Director's awards on recruitment. The Committee has discretion to determine the treatment at the time of departure based on what it considers to be fair and reasonable in the circumstances.

Non-statutory redundancy payments
Executive Directors are not entitled to non-statutory redundancy payments.

Pension allowance and other benefits
Pension allowance and other benefits for Executive Directors will be payable up to the termination date and/or as part of a payment in lieu of notice as described on page 134.

Payments in relation to statutory rights
The amount considered reasonable to pay by the Committee in respect of statutory rights may be included in the overall termination payment.

Payments required by law
The Committee reserves the right to make any other payments in connection with an Executive Director's cessation of office or employment where the payments are made in good faith in discharge of an existing legal obligation (or by way of damages for breach of such an obligation), or by way of settlement of any claim arising in connection with the cessation of an Executive Director's office or employment.

Mitigation
The departing Executive Director will be required to mitigate their loss by using reasonable efforts to secure new employment.

Professional fees
The Company may pay an amount considered reasonable by the Committee in respect of fees for legal and tax advice, and outplacement support for the departing Executive Director.

Treatment of LTI and Deferred Bonus Plan awards on cessation of employment

Plan	Termination by mutual agreement (broadly in circumstances of ill-health, injury, disability, redundancy or retirement and in the case of death and certain corporate events, e.g. sale of a business outside the Group)	Other leaver scenarios
Deferred Bonus Plan (Annual bonus)	Awards will vest at the end of the relevant deferral period, unless the Committee decides otherwise.	In the case of dismissal for gross misconduct, the awards will lapse. In other circumstances, the shares will be retained in full and vest at the end of the deferral period, unless the Committee decides otherwise.
PSP	Where cessation of employment occurs within three years of the date of grant, awards will vest, pro rata, to the time elapsed between the date of grant of the award and the date of cessation of employment, after the end of the performance period, to the extent that the performance target(s) measured over the performance period has been met. However, the Committee has discretion to permit the award to vest immediately on cessation of employment to the extent that the performance target(s) has, in the opinion of the Committee, been satisfied from the date of grant to the date of cessation of employment. However, if the Committee believes that exceptional circumstances warrant this, it may exercise its discretion to vest the award on another basis. Where cessation of employment occurs during any holding period, the award will vest in respect of all the shares that continue to be subject to the award as soon as practicable following the cessation of employment. However, the Committee has discretion to require the award to vest only at the end of the holding period.	Where cessation of employment occurs within three years of the date of grant, ordinarily awards will lapse unless the Committee exercises its discretion to preserve all or part of an award and apply the default treatment for leavers by mutual agreement as described in this table. This discretion will not be exercised in the case of dismissal for gross misconduct. Where cessation of employment occurs during any holding period, the award will vest in respect of all the shares that continue to be subject to the award as soon as practicable following the cessation of employment. However, the Committee has discretion to require the award to vest only at the end of the holding period. This discretion will not be exercised in the case of dismissal for gross misconduct and the award will lapse on termination.
Restricted shares	In relation to awards granted at the time of the Executive Director's recruitment to the Company in compensation for any awards or bonuses forfeited at their previous employer, the award will vest on the date their employment ceases. The Committee will, in its discretion, determine the proportion of shares which vests, and (unless exceptional circumstances apply) take into account the period elapsed between the date of grant and the date of cessation of employment.	Ordinarily awards will lapse unless the Committee exercises its discretion to preserve all or part of an award.

Remuneration Policy for Non-Executive Directors

Non-Executive Directors, including the Chair, receive annual Board fees. With the exception of the Chair, Non-Executive Directors receive additional fees for membership and for holding the position of Chair of a Board Committee or senior independent Non-Executive Director. Non-Executive Directors are not eligible for performance-related bonuses or to participate in any of the Company's share-based incentive plans. No pension contributions are made on their behalf. The annual Board fees applicable to Non-Executive Directors are set out in the Annual Report on Remuneration. Changes to these fees in future years will be set out in the corresponding year's Annual Report on Remuneration. The remuneration of Non-Executive Directors (excluding the Chair) is determined by the Chair and the Executive Directors. The remuneration of the Chair is determined by the other members of the Committee and the senior independent Non-Executive Director.

Annual Board fees

Purpose and link to strategy	Operation	Maximum opportunity
Intended to attract, retain and develop high-calibre individuals	Board fees for Non-Executive Directors are subject to periodic review and may be increased in the future to ensure that they remain sufficient to attract high-calibre individuals while remaining fair and proportionate. Although Non-Executive Directors currently receive their fees in cash, the Company may pay part or all of their fees in the form of shares. Non-Executive Directors are eligible to receive a base fee and additional fees where appropriate to reflect any additional time commitment or duties (e.g. being the Chair of a Committee). The fee structure is set out in the Annual Report on Remuneration.	The aggregate ordinary remuneration of the Non-Executive Directors shall not exceed the maximum specified in Articles 88 and 89 of the Company's Articles, as approved by the Company's shareholders. As at the date of this Policy, the maximum aggregate remuneration is £3,000,000 per annum and any Non-Executive Director who serves on any Board Committee may be paid such extra remuneration as the Board may determine.

Benefits

Purpose and link to strategy	Operation	Maximum opportunity
Intended to attract and retain high-calibre individuals	The Company provides directors' and officers' liability insurance and an indemnity to the fullest extent permitted by law and the Company's Articles and may also reimburse the costs of financial planning and tax advice.	The maximum amount payable in respect of these costs and the cost of insurance will be the reimbursement of the Non-Executive Directors' benefits grossed up for any tax payable by the individual.

Other costs and expenses

Purpose and link to strategy	Operation	Maximum opportunity
Intended to reimburse individuals for legitimately incurred costs and expenses	The Committee has the discretion to reimburse contributions by the Company to office costs of the Chair and other Non-Executive Directors in circumstances where such payments are deemed proportionate and reasonable. The Company will pay for all travel (including travel to the Company's offices), hotel and other expenses reasonably incurred by Non-Executive Directors (and any associated tax thereon) in the course of the Company's business, e.g., professional fees such as secretarial support, and reimbursement for domestic security arrangements such as lights and alarms following a security assessment. There are no contractual provisions for clawback or malus of other costs and expenses.	The maximum amounts payable in respect of these costs and expenses will be the reimbursement of the Non-Executive Directors' costs and expenses grossed up for any tax payable by the individual.

Letters of appointment

None of the Non-Executive Directors has a service contract but each has a letter of appointment. The terms and conditions of appointment of Non-Executive Directors may be viewed on the Governance page of the AstraZeneca website, at www.astrazeneca.com. In accordance with the Company's Articles, following their appointment, all Directors must retire at each AGM and may present themselves for re-election. The Company is mindful of the director independence provisions of the 2018 UK Corporate Governance Code and, in this regard, a Non-Executive Director's overall tenure will not normally exceed nine years. The Chair may terminate his appointment at any time, on three months' notice. None of the other Non-Executive Directors has a notice period or any provision in their letter of appointment giving them a right to compensation upon early termination of appointment.

On behalf of the Board

A C N Kemp
Company Secretary
8 February 2024

Financial Statements

Contents

Preparation of the Financial Statements and Directors' Responsibilities **140**
Directors' Annual Report on Internal Controls over Financial Reporting **140**
Auditors' Report **141**
Consolidated Statements **148**
Group Accounting Policies **152**
Notes to the Group Financial Statements **160**
Group Subsidiaries and Holdings **211**
Company Statements **216**
Company Accounting Policies **218**
Notes to the Company Financial Statements **220**
Group Financial Record **223**

Preparation of the Financial Statements and Directors' Responsibilities

The Directors are responsible for preparing this Annual Report and Form 20-F Information and the Group and Parent Company Financial Statements in accordance with applicable law and regulations.

Company law requires the Directors to prepare Financial Statements for each financial year. Under that law the Directors have prepared the Group Financial Statements in accordance with UK-adopted international accounting standards and with the requirements of the Companies Act 2006 as applicable to companies reporting under those standards and Parent Company Financial Statements in accordance with United Kingdom Generally Accepted Accounting Practice (United Kingdom Accounting Standards, comprising FRS 101 'Reduced Disclosure Framework', and applicable law). In preparing the Group Financial Statements, the Directors have also elected to comply with IFRS Accounting Standards as issued by the International Accounting Standards Board (IASB) and International Accounting Standards as adopted by the European Union.

Under company law, the Directors must not approve the Financial Statements unless they are satisfied that they give a true and fair view of the state of affairs of the Group and Parent Company and of their profit or loss for that period. In preparing each of the Group and Parent Company Financial Statements, the Directors are required to:

- select suitable accounting policies and then apply them consistently
- make judgements and estimates that are reasonable and prudent
- for the Group Financial Statements, state whether they have been prepared in accordance with UK-adopted International Accounting Standards
- for the Parent Company Financial Statements, state whether FRS 101 has been followed, subject to any material departures disclosed and explained in the Parent Company Financial Statements
- prepare the Financial Statements on the going concern basis unless it is inappropriate to presume that the Group and the Parent Company will continue in business.

The Directors are responsible for keeping adequate accounting records that are sufficient to show and explain the Parent Company's transactions and disclose with reasonable accuracy at any time the financial position of the Parent Company and enable them to ensure that its Financial Statements comply with the Companies Act 2006. They have general responsibility for taking such steps as are reasonably open to them to safeguard the assets of the Group and to prevent and detect fraud and other irregularities.

Under applicable law and regulations, the Directors are also responsible for preparing a Directors' Report, Strategic Report, Directors' Remuneration Report, Corporate Governance Report and Audit Committee Report that comply with that law and those regulations.

The Directors are responsible for the maintenance and integrity of the corporate and financial information included on our website. Legislation in the UK governing the preparation and dissemination of Financial Statements may differ from legislation in other jurisdictions.

Directors' responsibility statement pursuant to DTR 4

The Directors confirm that to the best of our knowledge:

- the Financial Statements, prepared in accordance with the applicable set of accounting standards, give a true and fair view of the assets, liabilities, financial position and profit or loss of the Company and the undertakings included in the consolidation taken as a whole
- the Directors' Report includes a fair review of the development and performance of the business and the position of the issuer and the undertakings included in the consolidation taken as a whole, together with a description of the principal risks and uncertainties that they face.

On behalf of the Board of Directors on 8 February 2024

Pascal Soriot
Director

Directors' Annual Report on Internal Controls over Financial Reporting

The Directors are responsible for establishing and maintaining adequate internal control over financial reporting. AstraZeneca's internal control over financial reporting is designed to provide reasonable assurance over the reliability of financial reporting and the preparation of consolidated financial statements in accordance with generally accepted accounting principles.

Due to its inherent limitations, internal control over financial reporting may not prevent or detect misstatements. Projections of any evaluation of effectiveness to future periods are subject to the risks that controls may become inadequate because of changes in conditions, or that the degree of compliance with the policies or procedures may deteriorate.

The Directors assessed the effectiveness of AstraZeneca's internal control over financial reporting as at 31 December 2023 based on the criteria set forth by the Committee of Sponsoring Organizations of the Treadway Commission in Internal Control-Integrated Framework (2013). Based on this assessment, internal control over financial reporting is effective.

PricewaterhouseCoopers LLP, an independent registered public accounting firm, has audited the effectiveness of internal control over financial reporting as at 31 December 2023 and has issued an unqualified report thereon.

Independent auditors' report to the members of AstraZeneca PLC

Report on the audit of the financial statements

Opinion

In our opinion:

- AstraZeneca PLC's Group financial statements and Company financial statements (the "financial statements") give a true and fair view of the state of the Group's and of the Company's affairs as at 31 December 2023 and of the Group's profit and the Group's cash flows for the year then ended;
- the Group financial statements have been properly prepared in accordance with UK-adopted international accounting standards as applied in accordance with the provisions of the Companies Act 2006;
- the Company financial statements have been properly prepared in accordance with United Kingdom Generally Accepted Accounting Practice (United Kingdom Accounting Standards, including FRS 101 "Reduced Disclosure Framework", and applicable law); and
- the financial statements have been prepared in accordance with the requirements of the Companies Act 2006.

We have audited the financial statements, included within the Annual Report and Form 20-F Information 2023 (the "Annual Report"), which comprise: the Consolidated Statement of Financial Position and the Company Balance Sheet as at 31 December 2023; the Consolidated Statement of Comprehensive Income, the Consolidated Statement of Cash Flows, the Consolidated and Company Statements of Changes in Equity for the year then ended; the Group and Company Accounting Policies; and the Notes to the Group and Company Financial Statements.

Our opinion is consistent with our reporting to the Audit Committee.

Separate opinion in relation to International Accounting Standards as adopted by the European Union

As explained in the Group Accounting Policies to the financial statements, the Group, in addition to applying UK-adopted international accounting standards, has also applied International Accounting Standards as adopted by the European Union.

In our opinion, the Group financial statements have been properly prepared in accordance with International Accounting Standards as adopted by the European Union.

Separate opinion in relation to IFRS Accounting Standards as issued by the IASB

As explained in the Group Accounting Policies to the financial statements, the Group, in addition to applying UK-adopted international accounting standards, has also applied IFRS Accounting Standards as issued by the International Accounting Standards Board (IASB).

In our opinion, the Group financial statements have been properly prepared in accordance with IFRS Accounting Standards as issued by the IASB.

Basis for opinion

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

Independence

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

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

Other than those disclosed in Note 31, we have provided no non-audit services to the Company or its controlled undertakings in the period under audit.

Our audit approach

Overview

Audit scope

- We identified eight reporting components which required a full scope audit of their complete financial information, either due to their size or risk characteristics. These components are the principal operating units in the US (two components), the UK, Sweden, China (two components) and Ireland, as well as the Company. One or more individual balances for certain of these reporting components were audited by our team based in Poland (for research and development and inventory) and our team in Malaysia (property, plant and equipment), as these are the locations where the accounting records reside.
- We also included Japan and Germany as two additional reporting components which had one or more individual balances that were considered significant to the Group's financial statements. For these components our work was solely focussed on revenue, accounts receivable and journals testing.
- We also identified five shared service centres where audit procedures were performed over certain shared service functions for IT general controls and transaction processing. Audit procedures were performed centrally in relation to various balances and activities accounted for and managed centrally including: goodwill, intangible assets (excluding software), pension obligations, centralised cash, borrowings and financial instruments, taxation, other investments and litigation matters, as well as the consolidation.
- The above procedures accounted for 72% of the Group's revenue and 72% of the Group's absolute profit before tax.

Key audit matters

- Recognition and measurement of accruals for Managed Care, Medicaid and Medicare Part D rebates on US Product Sales (excluding Rare Diseases) (Group)
- Impairment assessment of the product, marketing and distribution rights and other intangibles (Group)
- Recognition and measurement of legal provisions and disclosure of contingent liabilities (Group)
- Recognition, measurement and disclosure of tax liabilities for uncertain tax treatments (Group)
- Valuation of defined benefit obligations in the UK and Sweden (Group)
- Distributable reserves in the Company (Parent)

Materiality

- Overall Group materiality: $440m (2022: $400m) based on approximately 5% of profit before tax after adding back intangible asset impairment charges (Note 10), fair value movements and discount unwind on contingent consideration and other payables assumed from the Alexion acquisition (Note 20), the discount unwind on the Acerta Pharma share purchase liability (Note 3), the discount unwind on certain other payables arising from intangible asset acquisitions (Note 3), material legal net settlements (Note 21), the unwind of the fair value adjustment to Alexion inventories (Note 2) and restructuring charges relating to the Post Alexion Acquisition Group Review (Note 2).
- Overall Company materiality: $110m (2022: $100m) based on 0.2% of net assets as constrained by the allocation of overall Group materiality.
- Performance materiality: $330m (2022: $300m) (Group) and $82.5m (2022: $75m) (Company).

The scope of our audit

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

Key audit matters

Key audit matters are those matters that, in the auditors' professional judgement, were of most significance in the audit of the financial statements of the current period and include the most significant assessed risks of material misstatement (whether or not due to fraud) identified by the auditors, including those which had the greatest effect on: the overall audit strategy; the allocation of resources in the audit; and directing the efforts of the engagement team. These matters, and any comments we make on the results of our procedures thereon, were addressed in the context of our audit of the financial statements as a whole, and in forming our opinion thereon, and we do not provide a separate opinion on these matters.

This is not a complete list of all risks identified by our audit.

The key audit matters below are consistent with last year.

Key audit matter	How our audit addressed the key audit matter
Recognition and measurement of accruals for Managed Care, Medicaid and Medicare Part D rebates on US Product Sales (excluding Rare Diseases) (Group) Refer to the Audit Committee Report, Group Accounting Policies and Notes 1 and 20 in the Group financial statements. In the US the Group recognises revenue on Product Sales under various commercial and government mandated contracts and reimbursement arrangements that include rebates, of which the most significant are Managed Care, Medicaid and Medicare Part D relating to US Product Sales. Rebates provided to customers under these arrangements are accounted for as variable consideration, and recognised as a reduction to revenue, for which unsettled amounts are accrued. At the time Product Sales are invoiced, rebates and deductions that the Group expects to pay, are estimated. There is significant management estimation in determining the accruals in the US. Assumptions used to estimate the rebates are monitored and adjusted regularly in light of contractual and legal obligations, historical trends, past experience and projected market conditions. The US Rebates, chargebacks, returns and other revenue accruals liability (excluding Rare Diseases) at 31 December 2023 amounted to $4,926m (2022: $3,822m), principally consisting of rebates related to Managed Care, Medicaid and Medicare Part D.	We evaluated the design and tested the operating effectiveness of controls relating to the recognition and measurement of the accruals for the Managed Care, Medicaid and Medicare Part D. We determined that we could rely on these controls for the purposes of our audit. We: > developed an independent estimate of the Managed Care, Medicaid and Medicare Part D accruals using the terms of the specific rebate programmes and/or contracts with customers, historical revenue data; market demand and market conditions in the US; third party information on inventory held by direct and indirect customers; and the historical trend of actual rebate claims paid; > compared our independent estimates to the accruals recorded by management; > assessed the effect of any adjustments to prior years' accruals in the current year's results; and > tested actual payments made and rebate claims processed by the Group, and evaluated those claims for consistency with the contractual and mandated terms of the Group's arrangements. We utilised our in-house experts with specialised skills and knowledge to assist in assessing the compliance of the Group's Medicaid rebate policies against the regulatory policies, and subsequently evaluating the Group's calculation of the Medicaid drug rebate. Based on the procedures performed, we considered the accruals to be reasonable. We evaluated the disclosures in Notes 1 and 20 of the Group financial statements, and considered them to be appropriate.
Impairment assessment of the product, marketing and distribution rights and other intangibles (Group) Refer to the Audit Committee Report, Group Accounting Policies and Note 10 in the Group financial statements. The Group has product, marketing and distribution rights and other intangible assets (hereafter referred to as the intangible assets) totalling $37,587m at 31 December 2023 (2022: $38,890m). Those intangible assets under development and not available for use are tested annually for impairment and other intangible assets are tested when there is an indication of impairment loss or reversal. The recoverability of the carrying value of cash generating units (to which the intangible assets belong) depends on future cash flows and/or the outcome of research and development ('R&D') activities including decisions by the Group to terminate development. The determination of the recoverable amounts include significant estimates, which are highly sensitive and depend upon key assumptions including the outcome of R&D activities, probability of technical and regulatory success, market volume, share and pricing (to derive peak year sales), the amount and timing of projected future cash flows and sales erosion curves following patent expiry. Changes in these assumptions could have an impact on the recoverable amount of the Group's intangible assets. During 2023, $434m (2022: $241m) of net impairment charges were recorded (of which $417m (2022: $95m) was recorded in Research and development expenses and $17m (2022: $146m) within Selling, general and administrative costs).	We evaluated the design and tested the operating effectiveness of controls over management's assessment of the impairment of intangible assets. We determined that we could rely on these controls for the purposes of our audit. For those assets or cash generating units in the scope of our audit we: > tested management's process for assessing whether there is an indication of impairment and the process for determining the recoverable amount; > tested the completeness and accuracy of the models as well as the underlying data used in the models, which included reconciling the cash flows to the Board approved Group level budgets and forecasts; and > evaluated the significant assumptions used by management in determining future cash flows, including the probability of technical and regulatory success, peak year sales and sales erosion curves. In evaluating the reasonableness of management's assumptions we: > compared significant assumptions to external data and benchmarks; and > performed a retrospective comparison of forecasted revenues and costs to actual performance. We utilised our in-house valuation experts to assist with the evaluation of the probability of technical and regulatory success. Based on the procedures performed, we determined that the net impairment charge recorded for intangible assets was reasonable. We evaluated the disclosures in Note 10 of the Group financial statements, and considered them to be appropriate.
Recognition and measurement of legal provisions and disclosure of contingent liabilities (Group) Refer to the Audit Committee Report, Group Accounting Policies, Notes 21 and 30 in the Group financial statements. The Group is involved in various legal proceedings, including actual or threatened litigation and actual or potential government investigations relating to employment matters, product liability, commercial disputes, pricing, sales and marketing practices, infringement of IP rights and the validity of certain patents and competition laws. As at 31 December 2023 the Group held provisions of $1,016m (2022: $161m) in respect of legal claims and settlements (together, legal provisions) and disclosed the more significant legal proceedings as contingent liabilities in Note 30. There is significant judgement by management when assessing the timing and likelihood of loss being incurred and whether a legal provision can be reasonably estimated and recorded or if a contingent liability needs to be disclosed. Management's assessment of the amounts concerned relies heavily on estimates and assumptions.	We evaluated the design and tested the operating effectiveness of controls in respect of the recognition and measurement of legal proceedings and related disclosures. We determined that we could rely on these controls for the purposes of our audit. We enquired of internal legal counsel and where appropriate external legal counsel. We obtained and evaluated letters of audit enquiry with the Group's internal and external legal counsel for significant litigation. We have inspected certain external legal documents. We tested the completeness of management's assessment of both the identification of legal proceedings and possible outcomes of each significant legal claim. We evaluated the reasonableness of management's assessment regarding whether an adverse outcome is probable and estimated reliably. We evaluated management's judgement regarding the proceedings set out as contingent liabilities within Note 30. Based on the procedures performed, for the provisions recorded and contingent liabilities disclosed, we considered them to be reasonable. We evaluated the disclosures in Notes 21 and 30 of the Group financial statements, and considered them to be appropriate.

Key audit matter	How our audit addressed the key audit matter
Recognition, measurement and disclosure of tax liabilities for uncertain tax treatments (Group) Refer to the Audit Committee Report, Group Accounting Policies and Note 30 in the Group financial statements. The Group faces a number of audits and reviews in jurisdictions around the world and, in some cases, is in dispute with tax authorities. At 31 December 2023 the total net tax liability recognised in respect of uncertain tax treatments is $1,336m (2022: $830m). The Group estimates the potential for additional liabilities where the possibility of the additional liabilities falling due is more than remote and at 31 December 2023 this was $679m (2022: $734m). Tax liabilities recognised for uncertain tax treatments require management to make key judgements with respect to the outcome of current and potential future tax audits, reviews and disputes with tax authorities, and actual results could vary from these estimates.	We evaluated the design and tested the operating effectiveness of controls in respect of the recognition and measurement of uncertain tax treatments. We determined that we could rely on these controls for the purposes of our audit. We tested the completeness of management's assessment of the identification of tax liabilities and evaluated management's process for estimating the possible outcomes of each tax liability. We obtained the status and results of tax audits and discussions with the relevant tax authorities. With the assistance of our local and international tax specialists, we: > evaluated management's assessment of the technical merits of tax treatments (including where relevant evaluating any advice received from the Group's external advisors) and estimates of the amount of tax benefit expected to be sustained; > tested the completeness and accuracy of the information used in the determination of the probability of different outcomes for uncertain tax treatments and the estimation of the liability for those tax treatments; and > evaluated the reasonableness of significant assumptions related to the outcome of tax audits and assumptions relating to the most likely amount or expected value depending on the resolution of the uncertainty. Based on the procedures performed, we considered the tax liabilities to be reasonable. We evaluated the disclosures in Note 30 of the Group financial statements, and considered them to be appropriate.
Valuation of defined benefit obligations in the UK and Sweden (Group) Refer to the Audit Committee Report, Group Accounting Policies and Note 22 in the Group financial statements. The Group has defined benefit obligations of $7,907m at 31 December 2023 (2022: $8,108m), which is significant in the context of the overall balance sheet. The Group's most significant schemes are in the UK and Sweden, which comprise 86% of the Group's defined benefit obligations. The valuation of pension plan obligations requires significant estimation in determining appropriate assumptions such as mortality (for the UK scheme only), discount rates and inflation levels (for both the UK and Sweden schemes). Movements in these assumptions can have a material impact on the determination of the defined benefit obligations. Management uses external actuaries to assist in determining the assumptions.	We evaluated the design and tested the operating effectiveness of controls in respect of the assumptions used and accuracy of the Group's most significant defined benefit obligations. We determined that we could rely on these controls for the purposes of our audit. We used actuarial experts to assess whether the assumptions used in calculating the defined benefit obligations for the UK and Sweden were reasonable. Our actuarial experts assisted in developing an independent expectation of the defined benefit obligations for the UK and Sweden. Our experts evaluated whether the mortality assumptions (UK scheme only) and the discount rates and inflation rates (for both the UK and Sweden schemes) were: > consistent with the specifics of each plan and where relevant considering national information; > consistent with independently developed estimates; and > in line with other companies' recent external reporting. We evaluated the calculations prepared by management's external actuaries which included testing the completeness and accuracy of the underlying data. In order to evaluate the reasonableness of management's estimate, our experts also compared the independent estimate to management's estimate. Based on the procedures performed, we considered management's key assumptions to be within reasonable ranges. We evaluated the disclosures in Note 22 of the Group financial statements, and considered them to be appropriate.

Independent auditors' report to the members of AstraZeneca PLC *continued*

Key audit matter	How our audit addressed the key audit matter
Distributable reserves in the Company (Parent) Refer to the Company Statement of Changes in Equity in the Company financial statements. The directors review and disclose the level of distributable reserves of the Company annually and aim to maintain distributable reserves that provide adequate cover for dividend payments. At 31 December 2023, the overwhelming majority of the Profit and loss account reserve of $17,640m (31 December 2022: all of $7,458m) was available for distribution, subject to filing the Company financial statements with Companies House. There is judgement when determining the profits available for distribution by reference to guidance on realised and distributable profits in accordance with Companies Act 2006 issued by the Institute of Chartered Accountants in England and Wales and the Institute of Chartered Accountants of Scotland in April 2017.	We obtained and audited the analysis of distributable reserves. We used our distributable reserves experts to assess whether judgements made were appropriate and the analysis was aligned with the relevant technical guidance on the determination of realised profits under the Companies Act 2006. We assessed whether there is qualifying consideration in determining whether the Profit and loss account reserve is distributable. Based on our procedures, we noted no exceptions and considered the directors' judgement in determining the profits available for distribution, and the related disclosures, to be appropriate.

How we tailored the audit scope

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

The Group operates in over 100 countries and the size of operations within each territory varies. In establishing the overall approach to the Group audit, we determined the type of work that needed to be performed by us, as the Group engagement team, or component auditors within PwC UK and other PwC network firms operating under our instruction. Where the work was performed by component auditors, we determined the level of involvement we needed to have in the audit work in these territories to be able to conclude whether sufficient appropriate audit evidence had been obtained as a basis for our opinion on the Group financial statements as a whole.

We identified eight reporting components which required a full scope audit of their complete financial information, either due to their financial significance to the Group or specific risk characteristics. These components are the principal operating units in the US (two components), China (two components), the UK, Sweden, and Ireland, as well as the Company.

We also identified a further two reporting components which both had individual financial statement line item balances that were considered significant to the Group's financial statements. For these components our work was solely focussed on the audit of revenue and accounts receivable. The two components also performed journal testing in support of an overall Group significant risk.

Within our overall Group scope we performed procedures at five of AstraZeneca's Shared Service Centres (SSCs); Warsaw, Kuala Lumpur, Delhi, Cluj and San Jose. The testing procedures performed at the SSCs included controls testing and IT general controls testing. In addition to the work performed by the SSCs a number of centralised audit procedures were performed by the Group audit team. These procedures primarily related to the audit of goodwill, intangible assets (excluding software), pension obligations, centralised cash, borrowings and financial instruments, taxation, other investments, litigation matters, and the Group consolidation.

Our Group engagement team's involvement in the oversight of the reporting components and SSCs was continuous throughout the audit process. As part of our cycle of in person oversight we visited; China and the US (covering both components in each country), Sweden and Ireland and were in regular contact with our UK component team in Cambridge. We also visited the SSCs in Poland and India.

In addition to these on site visits, regular virtual meetings with the component auditors were held, whereby we performed reviews of the component auditors' planned response to significant risks, and reviewed the component auditors working papers. The work that is performed at the SSCs is overseen by the Group engagement team, and follows the same review and oversight process as the components. Alongside our team oversight we attended meetings with local management.

The impact of climate risk on our audit

In planning and executing our audit, we considered the potential impact of climate change on the Group's business and the financial statements. The Group has set out its intention — as part of the Ambition Zero Carbon programme – to achieve net zero greenhouse gas emissions by maximising energy efficiency, shifting to renewable energy sources and investing in nature-based removals to compensate for any residual GHG footprint.

As a part of our audit we made enquiries of management to understand the extent of the potential impact of the physical and transitional climate change risk on the Group financial statements. We also discussed the climate change initiatives and commitments from Ambition Zero Carbon and other initiatives to reduce CO_2 emissions, and the impact these have on the Group including on future cash flow forecasts. This includes the committed investment to the 'AZ Forest' through 2030 and the continued commitment to develop next-generation respiratory inhalers with near-zero global warming potential propellants for the pMDI inhaled medicines portfolio.

Management considers that the impact of climate change does not give rise to a material financial statement impact. With the assistance of our climate change experts we evaluated management's risk assessment and understood the Group's governance processes including the Sustainability Committee. We performed an audit risk assessment of how the impact of the Group's commitments in respect of climate change including Ambition Zero Carbon may affect the financial statements and our audit.

We challenged the extent to which climate change considerations including the expected cash flows from the initiatives and commitments had been reflected, where appropriate, in management's impairment assessment process, going concern assessment and viability assessment. We found that climate change impacts are included within management's forecasts although the initiatives and commitments did not have a material impact including on our key audit matters. We assessed the consistency of other information disclosed in the Annual Report with the Group financial statements, and with our knowledge obtained from the audit.

Materiality

The scope of our audit was influenced by our application of materiality. We set certain quantitative thresholds for materiality. These, together with qualitative considerations, helped us to determine the scope of our audit and the nature, timing and extent of our audit procedures on the individual financial statement line items and disclosures and in evaluating the effect of misstatements, both individually and in aggregate on the financial statements as a whole.

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

	Financial statements – Group	Financial statements – Company
Overall materiality	$440m (2022: $400m).	$110m (2022: $100m).
How we determined it	Approximately 5% of profit before tax after adding back intangible asset impairment charges (Note 10), fair value movements and discount unwind on contingent consideration and other payables assumed from the Alexion acquisition (Note 20), the discount unwind on the Acerta Pharma share purchase liability (Note 3), the discount unwind on certain other payables arising from intangible asset acquisitions (Note 3), material legal net settlements (Note 21), the unwind of the fair value adjustment to Alexion inventories (Note 2) and restructuring charges relating to the Post Alexion Acquisition Group Review (Note 2)	0.2% of net assets as constrained by the allocation of overall Group materiality
Rationale for benchmark applied	The reported profit of the Group can fluctuate due to intangible asset impairment charges, fair value and discount unwind movements on contingent consideration, the discount unwind on the Acerta Pharma share purchase liability, the discount unwind on certain other payables arising from intangible asset acquisitions, material legal net settlements, the unwind of the fair value adjustment to Alexion inventories and the restructuring costs resulting from the Post Alexion Acquisition Group Review. These amounts are prone to year on year volatility and are not necessarily reflective of the operating performance of the Group and as such they have been excluded from the benchmark amount. Our approach and relevant adjustments are consistent with the prior year.	We have considered the nature of the business of AstraZeneca PLC (being a holding Company for investment activities) and have determined that net assets are an appropriate basis for the calculation of the overall materiality level.

For each component in the scope of our Group audit, we allocated a materiality that is less than our overall Group materiality. The range of materiality allocated across components was between $45m and $250m.

We use performance materiality to reduce to an appropriately low level the probability that the aggregate of uncorrected and undetected misstatements exceeds overall materiality. Specifically, we use performance materiality in determining the scope of our audit and the nature and extent of our testing of account balances, classes of transactions and disclosures, for example in determining sample sizes. Our performance materiality was 75% (2022: 75%%) of overall materiality, amounting to $330m (2022: $300m) for the Group financial statements and $82.5m (2022: $75m) for the Company financial statements.

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

We agreed with the Audit Committee that we would report to them misstatements identified during our audit above $22m (Group audit) (2022: $20m) and $22m (Company audit) (2022: $20m) as well as misstatements below those amounts that, in our view, warranted reporting for qualitative reasons.

Conclusions relating to going concern

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

- agreeing the underlying cash flow projections to Board approved Group level budgets and forecasts, assessing how these forecasts are compiled, and assessing the accuracy of management's forecasts;
- evaluating the key assumptions within management's forecasts and ensuring that such assumptions are consistent with those modelled in relation to impairments;
- considering liquidity and available financial resources;
- assessing whether the stress testing performed by management appropriately considered the principal risks facing the business; and
- evaluating the feasibility of management's mitigating actions in the stress testing scenarios and performing our own sensitivities.

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

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

However, because not all future events or conditions can be predicted, this conclusion is not a guarantee as to the Group's and the Company's ability to continue as a going concern.

In relation to the directors' reporting on how they have applied the UK Corporate Governance Code, we have nothing material to add or draw attention to in relation to the directors' statement in the financial statements about whether the directors considered it appropriate to adopt the going concern basis of accounting.

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

Reporting on other information

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

In connection with our audit of the financial statements, our responsibility is to read the other information and, in doing so, consider whether the other information is materially inconsistent with the financial statements or our knowledge obtained in the audit, or otherwise appears to be materially misstated. If we identify an apparent material inconsistency or material misstatement, we are required to perform procedures to conclude whether there is a material misstatement of the financial statements or a material misstatement of the other information. If, based on the work we have performed, we conclude that there is a material misstatement of this other information, we are required to report that fact. We have nothing to report based on these responsibilities.

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

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

Strategic Report and Directors' Report

In our opinion, based on the work undertaken in the course of the audit, the information given in the Strategic Report and Directors' Report for the year ended 31 December 2023 is consistent with the financial statements and has been prepared in accordance with applicable legal requirements.

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

Directors' Remuneration

In our opinion, the part of the Directors' Remuneration Report to be audited has been properly prepared in accordance with the Companies Act 2006.

Corporate governance statement

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

Based on the work undertaken as part of our audit, we have concluded that each of the following elements of the corporate governance statement, included within the Corporate Governance Overview, Corporate Governance Report, Nomination and Governance Committee Report, Science Committee Report, Sustainability Committee Report and Audit Committee Report is materially consistent with the financial statements and our knowledge obtained during the audit, and we have nothing material to add or draw attention to in relation to:

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

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

In addition, based on the work undertaken as part of our audit, we have concluded that each of the following elements of the corporate governance statement is materially consistent with the financial statements and our knowledge obtained during the audit:

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

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

Responsibilities for the financial statements and the audit

Responsibilities of the directors for the financial statements

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

In preparing the financial statements, the directors are responsible for assessing the Group's and the Company's ability to continue as a going concern, disclosing, as applicable, matters related to going concern and using the going concern basis of accounting unless the directors either intend to liquidate the Group or the Company or to cease operations, or have no realistic alternative but to do so.

Auditors' responsibilities for the audit of the financial statements

Our objectives are to obtain reasonable assurance about whether the financial statements as a whole are free from material misstatement, whether due to fraud or error, and to issue an auditors' report that includes our opinion. Reasonable assurance is a high level of assurance, but is not a guarantee that an audit conducted in accordance with ISAs (UK) will always detect a material misstatement when it exists. Misstatements can arise from fraud or error and are considered material if, individually or in the aggregate, they could reasonably be expected to influence the economic decisions of users taken on the basis of these financial statements.

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

Based on our understanding of the Group and industry, we identified that the principal risks of non-compliance with laws and regulations related to patent protection, product safety (including but not limited to the US Food and Drug Administration regulation, the European Medicines Agency, the UK Medicines and Healthcare products Regulatory Agency, China Food and Drug Administration), antibribery and competition law (including but not limited to the Foreign Corrupt Practices Act, the Proceeds of Crime Act and the provisions set out by the National Healthcare Security Administration in China), and we considered the extent to which non-compliance might have a material effect on the financial statements. We also considered those laws and regulations that have a direct impact on the financial statements such as the Companies Act 2006 and tax legislation. We evaluated management's incentives and opportunities for fraudulent manipulation of the financial statements (including the risk of override of controls), and determined that the principal risks were related to journal entries to manipulate financial results and potential management bias in accounting estimates. The Group engagement team shared this risk assessment with the component auditors so that they could include appropriate audit procedures in response to such risks in their work.

Audit procedures performed by the Group engagement team and/or component auditors included:

- Evaluation and testing of the design and operating effectiveness of management's controls to prevent and detect irregularities;
- Discussions with VP Group Internal Audit, the Deputy Chief Compliance Officer, the Head of Global Investigations and the Group's General Counsel and Deputy General Counsels along with other members of Group legal and external counsel where applicable, including consideration of known or suspected instances of non-compliance with laws and regulations and fraud;
- Assessment of matters reported on the Group's whistleblowing helpline and the results of management's investigation of such matters;
- Challenging assumptions made by management in its significant accounting estimates, in particular in relation to the recognition and measurement of certain rebate accruals in the US (excluding Rare Diseases), the impairment of intangible assets (excluding goodwill and software development costs), the recognition and measurement of legal provisions and disclosure of contingent liabilities, the recognition and measurement of uncertain tax treatments, and the valuation of the defined benefit obligations (see related key audit matters above); and
- Identifying and testing the validity of journal entries, in particular any journal entries posted with unusual account combinations, and consolidation journals.

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

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

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

Use of this report

This report, including the opinions, has been prepared for and only for the Company's members as a body in accordance with Chapter 3 of Part 16 of the Companies Act 2006 and for no other purpose. We do not, in giving these opinions, accept or assume responsibility for any other purpose or to any other person to whom this report is shown or into whose hands it may come save where expressly agreed by our prior consent in writing.

Other required reporting

Companies Act 2006 exception reporting

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

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

We have no exceptions to report arising from this responsibility.

Appointment

Following the recommendation of the Audit Committee, we were appointed by the members on 27 April 2017 to audit the financial statements for the year ended 31 December 2017 and subsequent financial periods. The period of total uninterrupted engagement is seven years, covering the years ended 31 December 2017 to 31 December 2023.

Other matter

As required by the Financial Conduct Authority Disclosure Guidance and Transparency Rule 4.1.14R, these financial statements form part of the ESEF-prepared annual financial report filed on the National Storage Mechanism of the Financial Conduct Authority in accordance with the ESEF Regulatory Technical Standard ('ESEF RTS'). This auditors' report provides no assurance over whether the annual financial report has been prepared using the single electronic format specified in the ESEF RTS.

Sarah Quinn (Senior Statutory Auditor)
for and on behalf of
PricewaterhouseCoopers LLP
Chartered Accountants and Statutory Auditors
London
8 February 2024

Consolidated Statement of Comprehensive Income

for the year ended 31 December

	Notes	2023 $m	2022 $m	2021 $m
Product Sales	1	**43,789**	42,998	36,541
Alliance Revenue	1	**1,428**	755	388
Collaboration Revenue	1	**594**	598	488
Total Revenue		**45,811**	44,351	37,417
Cost of sales		**(8,268)**	(12,391)	(12,437)
Gross profit		**37,543**	31,960	24,980
Distribution expense		**(539)**	(536)	(446)
Research and development expense	2	**(10,935)**	(9,762)	(9,736)
Selling, general and administrative expense	2	**(19,216)**	(18,419)	(15,234)
Other operating income and expense	2	**1,340**	514	1,492
Operating profit		**8,193**	3,757	1,056
Finance income	3	**344**	95	43
Finance expense	3	**(1,626)**	(1,346)	(1,300)
Share of after tax losses in associates and joint ventures	11	**(12)**	(5)	(64)
Profit/(loss) before tax		**6,899**	2,501	(265)
Taxation	4	**(938)**	792	380
Profit for the period		**5,961**	3,293	115
Other comprehensive income:				
Items that will not be reclassified to profit or loss:				
Remeasurement of the defined benefit pension liability	22	**(406)**	1,118	626
Net gains/(losses) on equity investments measured at fair value through other comprehensive income		**278**	(88)	(187)
Fair value movements related to own credit risk on bonds designated as fair value through profit or loss		**(6)**	2	–
Tax on items that will not be reclassified to profit or loss	4	**101**	(216)	105
		(33)	816	544
Items that may be reclassified subsequently to profit or loss:				
Foreign exchange arising on consolidation	23	**608**	(1,446)	(483)
Foreign exchange arising on designated liabilities in net investment hedges	23	**24**	(282)	(321)
Fair value movements on cash flow hedges		**266**	(97)	(167)
Fair value movements on cash flow hedges transferred to profit and loss		**(145)**	73	208
Fair value movements on derivatives designated in net investment hedges	23	**44**	(8)	34
Costs of hedging		**(19)**	(7)	(6)
Tax on items that may be reclassified subsequently to profit or loss	4	**(12)**	73	46
		766	(1,694)	(689)
Other comprehensive income/(expense) for the period, net of tax		**733**	(878)	(145)
Total comprehensive income/(expense) for the period		**6,694**	2,415	(30)
Profit attributable to:				
Owners of the Parent		**5,955**	3,288	112
Non-controlling interests	26	**6**	5	3
Total comprehensive income/(expense) attributable to:				
Owners of the Parent		**6,688**	2,413	(33)
Non-controlling interests	26	**6**	2	3
Basic earnings per $0.25 Ordinary Share	5	**$3.84**	$2.12	$0.08
Diluted earnings per $0.25 Ordinary Share	5	**$3.81**	$2.11	$0.08
Weighted average number of Ordinary Shares in issue (millions)	5	**1,549**	1,548	1,418
Diluted weighted average number of Ordinary Shares in issue (millions)	5	**1,562**	1,560	1,427
Dividends declared and paid in the period	25	**4,487**	4,485	3,882

All activities were in respect of continuing operations.

$m means millions of US dollars.

Consolidated Statement of Financial Position

at 31 December

	Notes	2023 $m	2022 $m	2021 $m
Assets				
Non-current assets				
Property, plant and equipment	7	**9,402**	8,507	9,183
Right-of-use assets	8	**1,100**	942	988
Goodwill	9	**20,048**	19,820	19,997
Intangible assets	10	**38,089**	39,307	42,387
Investments in associates and joint ventures	11	**147**	76	69
Other investments	12	**1,530**	1,066	1,168
Derivative financial instruments	13	**228**	74	102
Other receivables	14	**803**	835	895
Deferred tax assets	4	**4,718**	3,263	4,330
		76,065	73,890	79,119
Current assets				
Inventories	15	**5,424**	4,699	8,983
Trade and other receivables	16	**12,126**	10,521	9,644
Other investments	12	**122**	239	69
Derivative financial instruments	13	**116**	87	83
Intangible assets	10	**–**	–	105
Income tax receivable		**1,426**	731	663
Cash and cash equivalents	17	**5,840**	6,166	6,329
Assets held for sale	18	**–**	150	368
		25,054	22,593	26,244
Total assets		**101,119**	96,483	105,363
Liabilities				
Current liabilities				
Interest-bearing loans and borrowings	19	**(5,129)**	(5,314)	(1,660)
Lease liabilities	8	**(271)**	(228)	(233)
Trade and other payables	20	**(22,374)**	(19,040)	(18,938)
Derivative financial instruments	13	**(156)**	(93)	(79)
Provisions	21	**(1,028)**	(722)	(768)
Income tax payable		**(1,584)**	(896)	(916)
		(30,542)	(26,293)	(22,594)
Non-current liabilities				
Interest-bearing loans and borrowings	19	**(22,365)**	(22,965)	(28,134)
Lease liabilities	8	**(857)**	(725)	(754)
Derivative financial instruments	13	**(38)**	(164)	(45)
Deferred tax liabilities	4	**(2,844)**	(2,944)	(6,206)
Retirement benefit obligations	22	**(1,520)**	(1,168)	(2,454)
Provisions	21	**(1,127)**	(896)	(956)
Other payables	20	**(2,660)**	(4,270)	(4,933)
		(31,411)	(33,132)	(43,482)
Total liabilities		**(61,953)**	(59,425)	(66,076)
Net assets		**39,166**	37,058	39,287
Equity				
Capital and reserves attributable to equity holders of the Company				
Share capital	24	**388**	387	387
Share premium account		**35,188**	35,155	35,126
Capital redemption reserve		**153**	153	153
Merger reserve		**448**	448	448
Other reserves	23	**1,464**	1,468	1,444
Retained earnings	23	**1,502**	(574)	1,710
		39,143	37,037	39,268
Non-controlling interests	26	**23**	21	19
Total equity		**39,166**	37,058	39,287

The Financial Statements from pages 148 to 215 were approved by the Board and were signed on its behalf by

Pascal Soriot
Director
8 February 2024

Aradhana Sarin
Director

Consolidated Statement of Changes in Equity
for the year ended 31 December

	Share capital $m	Share premium account $m	Capital redemption reserve $m	Merger reserve $m	Other reserves $m	Retained earnings $m	Total attributable to owners $m	Non-controlling interests $m	Total equity $m
At 1 January 2021	328	7,971	153	448	1,423	5,299	15,622	16	15,638
Profit for the period	–	–	–	–	–	112	112	3	115
Other comprehensive expense[1]	–	–	–	–	–	(145)	(145)	–	(145)
Transfer to other reserves[2]	–	–	–	–	21	(21)	–	–	–
Transactions with owners									
Dividends (Note 25)	–	–	–	–	–	(3,882)	(3,882)	–	(3,882)
Issue of Ordinary Shares	59	27,155	–	–	–	–	27,214	–	27,214
Share-based payments charge for the period (Note 29)	–	–	–	–	–	615	615	–	615
Settlement of share plan awards	–	–	–	–	–	(781)	(781)	–	(781)
Issue of replacement Alexion share awards upon acquisition (Note 27)[3]	–	–	–	–	–	513	513	–	513
Net movement	59	27,155	–	–	21	(3,589)	23,646	3	23,649
At 31 December 2021	387	35,126	153	448	1,444	1,710	39,268	19	39,287
Profit for the period	–	–	–	–	–	3,288	3,288	5	3,293
Other comprehensive expense[1]	–	–	–	–	–	(875)	(875)	(3)	(878)
Transfer to other reserves[2]	–	–	–	–	24	(24)	–	–	–
Transactions with owners									
Dividends (Note 25)	–	–	–	–	–	(4,485)	(4,485)	–	(4,485)
Issue of Ordinary Shares	–	29	–	–	–	–	29	–	29
Share-based payments charge for the period (Note 29)	–	–	–	–	–	619	619	–	619
Settlement of share plan awards	–	–	–	–	–	(807)	(807)	–	(807)
Net movement	–	29	–	–	24	(2,284)	(2,231)	2	(2,229)
At 31 December 2022	387	35,155	153	448	1,468	(574)	37,037	21	37,058
Profit for the period	**–**	**–**	**–**	**–**	**–**	**5,955**	**5,955**	**6**	**5,961**
Other comprehensive income[1]	**–**	**–**	**–**	**–**	**–**	**733**	**733**	**–**	**733**
Transfer to other reserves[2]	**–**	**–**	**–**	**–**	**(4)**	**4**	**–**	**–**	**–**
Transactions with owners									
Dividends (Note 25)	**–**	**–**	**–**	**–**	**–**	**(4,487)**	**(4,487)**	**–**	**(4,487)**
Dividends paid to non-controlling interests (Note 25)	**–**	**–**	**–**	**–**	**–**	**–**	**–**	**(4)**	**(4)**
Issue of Ordinary Shares	**1**	**33**	**–**	**–**	**–**	**–**	**34**	**–**	**34**
Share-based payments charge for the period (Note 29)	**–**	**–**	**–**	**–**	**–**	**579**	**579**	**–**	**579**
Settlement of share plan awards	**–**	**–**	**–**	**–**	**–**	**(708)**	**(708)**	**–**	**(708)**
Net movement	**1**	**33**	**–**	**–**	**(4)**	**2,076**	**2,106**	**2**	**2,108**
At 31 December 2023	**388**	**35,188**	**153**	**448**	**1,464**	**1,502**	**39,143**	**23**	**39,166**

[1] Included within Other comprehensive income of $733m (2022: expense of $878m; 2021: expense of $145m) is a charge of $19m (2022: charge of $7m; 2021: charge of $6m), relating to Costs of hedging.
[2] Amounts charged or credited to Other reserves relate to exchange adjustments arising on goodwill.
[3] Replacement share awards were issued as part of the acquisition of Alexion in 2021 (see Note 27).

Consolidated Statement of Cash Flows

for the year ended 31 December

	Notes	2023 $m	2022 $m	2021 $m
Cash flows from operating activities				
Profit/(loss) before tax		**6,899**	2,501	(265)
Finance income and expense	3	**1,282**	1,251	1,257
Share of after tax losses of associates and joint ventures	11	**12**	5	64
Depreciation, amortisation and impairment		**5,387**	5,480	6,530
Increase in trade and other receivables		**(1,425)**	(1,349)	(961)
(Increase)/decrease in inventories		**(669)**	3,941	1,577
Increase in trade and other payables and provisions		**2,394**	1,165	1,405
Gains on disposal of intangible assets	2	**(251)**	(104)	(513)
Gains on disposal of investments in associates and joint ventures	2	**–**	–	(776)
Fair value movements on contingent consideration arising from business combinations	20	**549**	82	14
Non-cash and other movements	17	**(386)**	(692)	95
Cash generated from operations		**13,792**	12,280	8,427
Interest paid		**(1,081)**	(849)	(721)
Tax paid		**(2,366)**	(1,623)	(1,743)
Net cash inflow from operating activities		**10,345**	9,808	5,963
Cash flows from investing activities				
Acquisition of subsidiaries, net of cash acquired	27	**(189)**	(48)	(9,263)
Payments upon vesting of employee share awards attributable to business combinations	27	**(84)**	(215)	(211)
Payment of contingent consideration from business combinations	20	**(826)**	(772)	(643)
Purchase of property, plant and equipment		**(1,361)**	(1,091)	(1,091)
Disposal of property, plant and equipment		**132**	282	13
Purchase of intangible assets		**(2,417)**	(1,480)	(1,109)
Disposal of intangible assets		**291**	447	587
Movement in profit-participation liability	2	**190**	–	20
Purchase of non-current asset investments		**(136)**	(45)	(184)
Disposal of non-current asset investments		**32**	42	9
Movement in short-term investments, fixed deposits and other investing instruments		**97**	(114)	96
Payments to associates and joint ventures	11	**(80)**	(26)	(92)
Disposal of investments in associates and joint ventures		**–**	–	776
Interest received		**287**	60	34
Net cash outflow from investing activities		**(4,064)**	(2,960)	(11,058)
Net cash inflow/(outflow) before financing activities		**6,281**	6,848	(5,095)
Cash flows from financing activities				
Proceeds from issue of share capital		**33**	29	29
Issue of loans and borrowings		**3,816**	–	12,929
Repayment of loans and borrowings		**(4,942)**	(1,271)	(4,759)
Dividends paid		**(4,481)**	(4,364)	(3,856)
Hedge contracts relating to dividend payments		**(19)**	(127)	(29)
Repayment of obligations under leases		**(268)**	(244)	(240)
Movement in short-term borrowings		**161**	74	(276)
Payments to acquire non-controlling interests		**–**	–	(149)
Payment of Acerta Pharma share purchase liability		**(867)**	(920)	–
Net cash (outflow)/inflow from financing activities		**(6,567)**	(6,823)	3,649
Net (decrease)/increase in Cash and cash equivalents in the period		**(286)**	25	(1,446)
Cash and cash equivalents at the beginning of the period		**5,983**	6,038	7,546
Exchange rate effects		**(60)**	(80)	(62)
Cash and cash equivalents at the end of the period	17	**5,637**	5,983	6,038

Group Accounting Policies

Basis of accounting and preparation of financial information

The Consolidated Financial Statements have been prepared under the historical cost convention, modified to include revaluation to fair value of certain financial instruments and pension plan assets and liabilities as described below, in accordance with UK-adopted international accounting standards and with the requirements of the Companies Act 2006 as applicable to companies reporting under those standards. The Consolidated Financial Statements also comply fully with IFRS Accounting Standards as issued by the International Accounting Standards Board (IASB) and International Accounting Standards as adopted by the European Union.

The Consolidated Financial Statements are presented in US dollars, which is the Company's functional currency.

In preparing their individual financial statements, the accounting policies of some overseas subsidiaries do not conform with IASB-issued IFRSs. Therefore, where appropriate, adjustments are made in order to present the Consolidated Financial Statements on a consistent basis.

New accounting requirements

Other than noted below, amendments to accounting standards issued by the IASB and adopted in the year ended 31 December 2023 did not have a material impact on the result or financial position of the Group.

IAS 12

On 23 May 2023, the IASB issued an amendment to IAS 12 'Income Taxes' to clarify how the effects of the global minimum tax framework should be accounted for and disclosed effective 1 January 2023. This was endorsed by the UK Endorsement Board on 19 July 2023 and has been adopted by the Group for 2023 reporting. The Group has applied the exemption to recognising and disclosing information about deferred tax assets and liabilities related to Pillar 2 income taxes.

Alliance and Collaboration Revenue

Effective 1 January 2023, the Group has updated the presentation of Total Revenue on the face of the Statement of Comprehensive Income to include Alliance Revenue as a separate element to Collaboration Revenue. Alliance Revenue, previously reported within Collaboration Revenue, comprises income related to sales made by collaboration partners, where AstraZeneca is entitled to a share of gross profits, share of revenues or royalties, which are recurring in nature while the collaboration arrangement remains in place. Alliance Revenue does not include Product Sales where AstraZeneca is leading commercialisation in a territory.

Collaboration Revenue arising from collaborative arrangements where the Group retains a significant ongoing economic interest and receives upfront amounts and event-triggered milestones, which arise from the licensing of intellectual property, will continue to be reported as Collaboration Revenue. In collaboration arrangements either AstraZeneca or the collaborator acts as principal in sales to the end customer. Where AstraZeneca acts as principal, AstraZeneca records 100% of sales to the end customer within Product Sales. The updated presentation reflects the increasing importance of income arising from share of gross profit arrangements where collaboration partners are responsible for booking revenues in some or all territories.

The comparative revenue reported in the years to 31 December 2022 and 31 December 2021 has been retrospectively adjusted to reflect the new split of Total Revenue, resulting in Alliance Revenue being reported for the year to 31 December 2022 of $755m and to 31 December 2021 of $388m, however the combined total of Alliance Revenue and Collaboration Revenue is equal to the previously reported Collaboration Revenue total for each prior year.

Basis for preparation of Financial Statements on a going concern basis

The Group has considerable financial resources available. As at 31 December 2023, the Group has $12.7bn in financial resources (Cash and cash equivalent balances of $5.8bn and undrawn committed bank facilities of $6.9bn, of which $2.0bn are available until February 2025 and the remaining $4.9bn are available until April 2026, (in February 2024 these facilities were extended to April 2029), with only $5.4bn of borrowings due within one year).

The Group's revenues are largely derived from sales of medicines covered by patents, which provide a relatively high level of resilience and predictability to cash inflows, although government price interventions in response to budgetary constraints are expected to continue to adversely affect revenues in some of our significant markets. The Group, however, anticipates new revenue streams from both recently launched medicines and those in development, and the Group has a wide diversity of customers and suppliers across different geographic areas.

Consequently, the Directors believe that, overall, the Group is well placed to manage its business risks successfully. Accordingly, they continue to adopt the going concern basis in preparing the Annual Report and Financial Statements.

Estimates and judgements

The preparation of the Financial Statements in conformity with generally accepted accounting principles requires management to make estimates and judgements that affect the reported amounts of assets and liabilities at the date of the Financial Statements and the reported amounts of revenues and expenses during the reporting period. Actual results could differ from those estimates.

The accounting policy descriptions set out the areas where judgements and estimates need exercising, the most significant of which include the following Key Judgements KJ and Significant Estimates SE:

- revenue recognition – see Revenue Accounting Policy from page 152 KJ and Note 1 on page 161 SE
- expensing of internal development expenses – see Research and Development Policy from page 154 KJ
- impairment reviews of Intangible assets – see Note 10 on page 174 SE
- useful economic life of Intangible assets – see Research and Development Policy from page 154 KJ
- business combinations and Goodwill – see Business Combinations and Goodwill Policy from page 156 KJ and Note 27 from page 193 SE
- litigation liabilities – see Litigation and Environmental Liabilities within Note 30 on page 204 KJ
- operating segments – see Note 6 on page 167 KJ
- employee benefits – see Note 22 on page 190 SE
- taxation – see Note 30 from page 209 KJ.

The Group has assessed the impact of climate risk on its financial reporting. The impact assessment was primarily focused on the valuation and useful lives of intangible assets and the identification and valuation of provisions and contingent liabilities, as these are judged to be the key areas that could be impacted by climate risks. No material accounting impacts or changes to judgements or other required disclosures were noted.

KJ Key Judgements are those judgements made in applying the Group's accounting policies that have a material effect on the amounts of assets and liabilities recognised in the Financial Statements.

SE A Significant Estimate has a significant risk of material adjustment to the carrying amounts of assets and liabilities within the next financial year.

Financial risk management policies are detailed in Note 28 to the Financial Statements from page 195.

AstraZeneca's management considers the following to be the material accounting policies in the context of the Group's operations.

Revenue

Revenue comprises Product Sales, Alliance Revenue and Collaboration Revenue.

Revenue excludes inter-company revenues and value-added taxes.

Product Sales

Product Sales represent net invoice value less estimated rebates, returns and chargebacks, which are considered to be variable consideration and include significant estimates. Sales are recognised when the control of the goods has been transferred to a third party. This is usually when title passes to the customer, either on shipment or on receipt of goods by the customer, depending on local trading terms. Revenue is not recognised in full until it is highly probable that a significant reversal in the amount of cumulative revenue recognised will not occur.

Rebates are amounts payable or credited to a customer, usually based on the quantity or value of Product Sales to the customer for specific products in a certain period. Product sales rebates, which relate to Product Sales that occur over a period of time, are normally issued retrospectively.

At the time Product Sales are invoiced, rebates and deductions that the Group expects to pay are estimated based upon assumptions developed using contractual terms, historical experience and market-related information. The rebates and deductions are recognised as variable consideration and recorded as a reduction to revenue with an accrual recorded. These rebates typically arise from sales contracts with government payers, third-party managed care organisations, hospitals, long-term care facilities, group purchasing organisations and various state programmes.

In markets where returns are significant, estimates of the quantity and value of goods which may ultimately be returned are accounted for at the point revenue is recognised. Our returns accruals are based on actual experience over the preceding 12 months for established products together with market-related information such as estimated stock levels at wholesalers and competitor activity which we receive via third-party information services. For newly launched products, we use rates based on our experience with similar products or a predetermined percentage.

When a product faces generic competition, particular attention is given to the possible levels of returns and, in cases where the circumstances are such that the level of Product Sales are considered highly probable to reverse, revenues are only recognised when the right of return expires, which is generally on ultimate prescription of the product to patients.

The methodology and assumptions used to estimate rebates and returns are monitored and adjusted regularly in the light of contractual and legal obligations, historical trends, past experience and projected market conditions. Once the uncertainty associated with returns is resolved, revenue is adjusted accordingly.

Under certain collaboration agreements which include a profit sharing mechanism, our recognition of Product Sales depends on which party acts as principal in sales to the end customer. In the cases where AstraZeneca acts as principal, we record 100% of sales to the end customer. In the cases where AstraZeneca does not act as principal, we record the share of gross profits received within Alliance Revenue.

Contracts relating to the supply of certain Vaccines & Immune Therapies medicines relating to the COVID-19 pandemic include conditions whereby payments are receivable from customers in advance of the delivery of product. Such amounts are held on the balance sheet as contract liabilities until the related revenue is recognised, generally upon product delivery. Certain of these contracts contain further provisions that restrict the use of inventory manufactured in specified supply chains to specified customers, resulting in an enforceable right to payment as the activities are performed. Under IFRS 15, such contracts require revenue to be recognised over time using an appropriate and reasonably measurable method to measure progress. Revenue is recognised on these contracts based on the proportion of product delivered compared to the total contracted volumes.

Certain arrangements include bill-and-hold arrangements under which the Group invoices a customer for a product but retains physical possession of the product until it is transferred to the customer at a point in time in the future. For these types of arrangements, an assessment is made to determine when the performance obligation has been satisfied, which is when control of the product is transferred to the customer. If the customer has obtained control of the product even though that product remains in the Group's physical possession, the performance obligation to transfer a product has been satisfied and Product Sales are recognised. Control is considered to have transferred when the reason for the bill-and-hold arrangement is substantive, the product can be identified separately as belonging to the customer, the product is ready for physical transfer to the customer and AstraZeneca is unable to use or sell the product to another customer.

Alliance Revenue

Alliance Revenue comprises income arising from the ongoing operation of collaborative arrangements related to sales made by collaboration partners, where AstraZeneca is entitled to a share of gross profits, share of revenues or royalties, which are recurring in nature while the collaboration agreement remains in place. Alliance Revenue does not include Product Sales where AstraZeneca is leading commercialisation in a territory, or reimbursement for AstraZeneca-incurred expenses such as R&D or promotion costs, which arise from the license of intellectual property.

The Group periodically enters into transactions where it acquires part of the rights to a product intangible (either on-market or in-process R&D), but for commercial reasons does not act as principal in selling the product to the customer and therefore does not recognise income from the product in the form of Product Sales. This may occur where, for example, a collaboration partner retains the right to commercialise in a specific territory, and has sufficient local control over that commercialisation to book Product Sales, while the Group instead receives a proportion of the value generated by those Product Sales, either in the form of a royalty, a share of gross profits or a share of revenues.

Where the arrangement meets the definition of a licence agreement, share of gross profits, share of revenues and sales royalties are recognised when achieved by applying the royalty exemption under IFRS 15. All other sales royalties are recognised when considered it is highly probable there will not be a significant reversal of cumulative income. The determination requires estimates to be made in relation to future Product Sales.

Collaboration Revenue

Collaboration Revenue includes income arising from entering into collaborative arrangements where the Group has out-licensed (sold) certain rights associated with products and where AstraZeneca retains a significant ongoing economic interest in the product. Significant interest can include ongoing supply of finished goods, profit sharing arrangements or being principal in the sales of medicines. These collaborations may include development, manufacturing and/or commercialisation arrangements with the collaborator. Income from out-licences may take the form of upfront fees and milestones.

KJ Timing of recognition of clinical and regulatory milestones is considered to be a key judgement. There can be significant uncertainty over whether it is highly probable that there would not be a significant reversal of revenue in respect of specific milestones if these are recognised before they are triggered due to them being subject to the actions of third parties. In general, where the triggering of a milestone is subject to the decisions of third parties (e.g. the acceptance or approval of a filing by a regulatory authority), the Group does not consider that the threshold for recognition is met until that decision is made.

Where Collaboration Revenue arises from the licensing of the Group's own intellectual property, the licences we grant are typically rights to use intellectual property which do not change during the period of the licence and therefore related non-conditional revenue is recognised at the point the licence is granted and variable consideration as soon as recognition criteria are met.

Other performance obligations in the contract might include the supply of product. These arrangements typically involve the receipt of an upfront payment, which the contract attributes to the license of the intangible assets, and ongoing receipts for supply, which the contract attributes to the sale of the product we manufacture. In cases where the transaction has two or more components, we account for the delivered item (for example, the transfer of title to the intangible asset) as a separate unit of account and record revenue on delivery of that component. Where practicable, consideration is allocated to performance obligations on the basis of the standalone selling price of each performance obligation. However, where there is a licence of intellectual property, it is not always possible to establish a reliable estimate of the standalone selling price of the licence as they are unique. Therefore, in these rare situations, the residual approach is used to determine the consideration attributable to the licence.

Where fixed amounts are payable over one year from the effective date of a contract, an assessment is made as to whether a significant financing component exists, and if so, the fair value of this component is deferred and recognised as financing income over the period to the expected date of receipt.

Where control of a right to use licence for an intangible asset passes at the outset of an arrangement, revenue is recognised at the point in time control is transferred. Where the substance of a licence arrangement is that of a right to access rights attributable to an intangible asset, revenue, in the form of an upfront fee, is recognised over time, normally on a straight-line basis over the life of the contract. Where the Group provides ongoing development services, revenue in respect of this element is recognised over the duration of those services.

Where Collaboration Revenue is recorded and there is a related intangible asset that is licensed as part of the arrangement, an appropriate amount of that intangible asset is charged to Cost of sales based on an allocation of cost or value to the rights that have been licensed.

Cost of sales

Cost of sales are recognised as the associated revenue is recognised. Cost of sales include manufacturing costs, royalties payable on revenues recognised, movements in provisions for inventories, inventory write-offs and impairment charges in relation to manufacturing assets. Cost of sales also includes co-collaborator sharing of profit arising from collaborations, and foreign exchange gains and losses arising from business trading activities.

Research and development

Research expenditure is charged to profit and loss in the year in which it is incurred.

KJ Internal development expenditure is capitalised only if it meets the recognition criteria of IAS 38 'Intangible Assets'. This is considered a key judgement. Where regulatory and other uncertainties are such that the criteria are not met, the expenditure is charged to profit and loss and this is almost invariably the case prior to approval of the drug by the relevant regulatory authority. Where, however, recognition criteria are met, Intangible assets are capitalised and amortised on a straight-line basis over their useful economic lives from product launch. At 31 December 2023, no amounts have met the recognition criteria.

Payments to in-license products and compounds from third parties for new research and development projects (in process research and development) generally take the form of upfront payments, milestones and royalty payments. Where payments made to third parties represent consideration for future research and development activities, an evaluation is made as to the nature of the payments. Such payments are expensed if they represent compensation for sub-contracted research and development services not resulting in a transfer of intellectual property. By contrast, payments are capitalised if they represent compensation for the transfer of identifiable intellectual property developed at the risk of the third party. Such payments may be made once development or regulatory milestones are met and may also be made on the basis of sales volumes once a product is launched. Development and regulatory milestone payments are capitalised as the milestone is triggered. Sales-related payments are accrued and capitalised with reference to the latest Group sales forecasts for approved indications at the present value of expected future cash flows. Assets capitalised are amortised, on a straight-line basis, over their useful economic lives from product launch.

KJ The determination of useful economic life is considered to be a key judgement. On product launch, the Group makes a judgement as to the expected useful economic life with reference to the expiry of associated patents for the product, expectation around the competitive environment specific to the product and our detailed long-term risk-adjusted sales projections compiled annually across the Group and approved by the Board.

The useful economic life can extend beyond patent expiry dependent upon the nature of the product and the complexity of the development and manufacturing process. Significant sales can often be achieved post patent expiration.

Intangible assets

Intangible assets are stated at cost less accumulated amortisation and impairments. Intangible assets relating to products in development are subject to impairment testing annually. All Intangible assets are tested for impairment when there are indications that the carrying value may not be recoverable. The determination of the recoverable amounts include key estimates which are highly sensitive to, and depend upon, key assumptions as detailed in Note 10 to the Financial Statements from page 172.

Impairment reviews have been carried out on all Intangible assets that are in development (and not being amortised), all major intangible assets acquired during the year and all other intangible assets that have had indicators of impairment during the year. Recoverable amount is determined as the higher of value-in-use or fair value less costs to sell using a discounted cash flow calculation, with the products' expected cash flows risk-adjusted over their estimated remaining useful economic life. Sales forecasts and specific allocated costs (which have both been subject to appropriate senior management review and approval) are risk-adjusted and discounted using appropriate rates based on our post-tax weighted average cost of capital or for fair value less costs to sell, a required rate of return for a market participant. Our weighted average cost of capital reflects factors such as our capital structure and our costs of debt and equity.

Any impairment losses are recognised immediately in Operating profit. Intangible assets relating to products which fail during development (or for which development ceases for other reasons) are also tested for impairment and are written down to their recoverable amount (which is usually nil).

If, subsequent to an impairment loss being recognised, development restarts or other facts and circumstances change indicating that the impairment is less or no longer exists, the value of the asset is re-estimated and its carrying value is increased to the recoverable amount, but not exceeding the original value, by recognising an impairment reversal in Operating profit.

Government grants

Government grants are recognised in the Consolidated Statement of Comprehensive Income so as to match with the related expenses that they are intended to compensate. Where grants are received in advance of the related expenses, they are initially recognised in the Consolidated Statement of Financial Position under Trade and other payables as deferred income and released to net off against the related expenditure when incurred.

Each contract is assessed to determine whether there are both grant elements and supply of product which need to be separated. In each case, the contracts set out the specified terms for the supply of the product and the provisions for funding for certain costs, primarily research and development associated with the IP. It is considered whether there are any conditions for the funding to be refunded. The consideration in the contract is allocated between the grant and supply elements. The standalone selling price for the supply of products is determined by reference to observed prices with other customers. The amount allocated as a government grant is determined by reference to the specific agreed costs and activities identified in the contract as not directly attributable to the supply of product. Government grants are recorded as an offset to the relevant expense in the Consolidated Statement of Comprehensive Income and are capped to match the relevant costs incurred.

Other operating income and expense

Other operating income and expense is generated from activities outside of the Group's normal course of business, which includes Other income from divestments of or full out-license of assets and businesses including royalties and milestones where the Group does not retain a significant continued interest. Where the arrangement meets the definition of a licence agreement, sales milestones and sales royalties are recognised when achieved by applying the royalty exemption under IFRS 15. All other milestones and sales royalties are recognised when it is considered highly probable that there will not be a significant reversal of cumulative income. The determination requires estimates to be made in relation to future Product Sales.

Joint arrangements and associates

The Group has arrangements over which it has joint control and which qualify as joint operations or joint ventures under IFRS 11 'Joint Arrangements'. For joint operations, the Group recognises its share of revenue that it earns from the joint operations and its share of expenses incurred. The Group also recognises the assets associated with the joint operations that it controls and the liabilities it incurs under the joint arrangement. For joint ventures and associates, the Group recognises its interest in the joint venture or associate as an investment and uses the equity method of accounting.

Employee benefits

The Group accounts for pensions and other employee benefits (principally healthcare) under IAS 19 'Employee Benefits'. In respect of defined benefit plans, obligations are determined using the projected unit credit method and are discounted to present value by reference to market yields on high-quality corporate bonds, while plan assets are measured at fair value. Given the extent of the assumptions used to determine the value of scheme assets and scheme liabilities, these are considered to be significant estimates. The operating and financing costs of such plans are recognised separately in profit; current service costs are spread systematically over the lives of employees and financing costs are recognised in full in the periods in which they arise. Remeasurements of the net defined benefit pension liability, including actuarial gains and losses, are recognised immediately in Other comprehensive income.

Where the calculation results in a surplus to the Group, the recognised asset is limited to the present value of any available future refunds from the plan or reductions in future contributions to the plan subject to consideration of the effect any minimum funding requirement for future service has on the benefit available as a reduction in future contributions.

Payments to defined contribution plans are recognised in profit as they fall due.

Taxation

The current tax payable is based on taxable profit for the year. Taxable profit differs from reported profit because taxable profit excludes items that are either never taxable or tax deductible or items that are taxable or tax deductible in a different period. The Group's current tax assets and liabilities are calculated using tax rates that have been enacted or substantively enacted by the reporting date.

Deferred tax is provided using the balance sheet liability method, providing for temporary differences between the carrying amounts of assets and liabilities for financial reporting purposes and the amounts used for taxation purposes. Deferred tax liabilities are recognised unless they arise from the initial recognition (other than in a business combination) of assets and liabilities in a transaction that affects neither the taxable profit nor the accounting profit. Deferred tax liabilities are not recognised to the extent they arise from the initial recognition of non-tax deductible goodwill. Deferred tax assets are recognised to the extent that there are future taxable temporary differences or it is probable that future taxable profit will be available against which the asset can be utilised. This requires judgements to be made in respect of the availability of future taxable income.

No deferred tax asset or liability is recognised in respect of temporary differences associated with investments in subsidiaries and branches where the Group is able to control the timing of reversal of the temporary differences and it is probable that the temporary differences will not reverse in the foreseeable future.

The Group's deferred tax assets and liabilities are calculated using tax rates that are expected to apply in the period when the liability is settled or the asset realised based on tax rates that have been enacted or substantively enacted by the reporting date.

Deferred tax liabilities relating to assets recognised because of a business combination which may qualify for intellectual property incentives are measured at the relevant statutory tax rate. Deferred tax assets and liabilities are offset in the Consolidated Statement of Financial Position if, and only if, the taxable entity has a legally enforceable right to set off current tax assets and liabilities, and the Deferred tax assets and liabilities relate to taxes levied by the same taxation authority on the same taxable entity.

Liabilities for uncertain tax positions require management to make judgements of potential exposures in relation to tax audit issues. Tax benefits are not recognised unless the tax positions will probably be accepted by the tax authorities. This is based upon management's interpretation of applicable laws and regulations and the expectation of how the tax authority will resolve the matter. Once considered probable of not being accepted, management reviews each material tax benefit and reflects the effect of the uncertainty in determining the related taxable result.

Liabilities for uncertain tax positions are measured using either the most likely amount or the expected value amount depending on which method the entity expects to better predict the resolution of the uncertainty.

Further details of the estimates and assumptions made in determining our recorded liability for transfer pricing contingencies and other tax contingencies are included in Note 30 to the Financial Statements from page 204.

Share-based payments

All plans have been classified as equity settled after assessment. The grant date fair value of the market-based performance elements of employee share plan awards is calculated using a modified Monte Carlo model, with other elements at market price. In accordance with IFRS 2 'Share-based Payment', the resulting cost is recognised in profit on a straight-line basis over the vesting period of the awards. The value of the charge is adjusted to reflect expected and actual levels of awards vesting, except where the failure to vest is as a result of not meeting a market condition. Cancellations of equity instruments are treated as an acceleration of the vesting period and any outstanding charge is recognised in profit immediately.

Cash outflows relating to the vesting of share plans for our employees are recognised within operating activities, as they relate to employee remuneration. The cash flows relating to replacement awards issued to employees as part of the Alexion acquisition (see Note 27 from page 193) are classified within investing activities, as they are part of the aggregate cash flows arising from obtaining control of the subsidiary.

Property, plant and equipment

The Group's policy is to depreciate the difference between the cost of each item of Property, plant and equipment and its residual value over its estimated useful life on a straight-line basis. Assets under construction are not depreciated until the asset is available for use, at which point the asset is transferred into either Land and buildings or Plant and equipment, and depreciated over its estimated useful economic life.

Reviews are made annually of the estimated remaining lives and residual values of individual productive assets, taking account of commercial and technological obsolescence as well as normal wear and tear. It is impractical to calculate average asset lives exactly. However, the useful economic lives range from approximately 10 to 50 years for buildings, and three to 15 years for plant and equipment. All items of Property, plant and equipment are tested for impairment when there are indications that the carrying value may not be recoverable. Any impairment losses are recognised immediately in Operating profit.

Leases

The Group's lease arrangements are principally for property, most notably a portfolio of office premises and employee accommodation, and for a global car fleet, utilised primarily by our sales and marketing teams.

The lease liability and corresponding right-of-use asset arising from a lease are initially measured on a present value basis. Lease liabilities include the net present value of the following lease payments:

- fixed payments, less any lease incentives receivable
- variable lease payments that depend on an index or a rate, initially measured using the index or rate as at the commencement date
- the exercise price of a purchase option if the Group is reasonably certain to exercise that option
- payments of penalties for terminating the lease, if the lease term reflects the Group exercising that option, and
- amounts expected to be payable by the Group under residual value guarantees.

Right-of-use assets are measured at cost comprising the following:

- the amount of the initial measurement of lease liability
- any lease payments made at or before the commencement date less any lease incentives received
- any initial direct costs, and
- restoration costs.

Judgements made in calculating the lease liability include assessing whether arrangements contain a lease and determining the lease term. Lease terms are negotiated on an individual basis and contain a wide range of different terms and conditions. Property leases will often include an early termination or extension option to the lease term. Fleet management policies vary by jurisdiction and may include renewal of a lease until a measurement threshold, such as mileage, is reached. Extension and termination options have been considered when determining the lease term, along with all facts and circumstances that may create an economic incentive to exercise an extension option, or not exercise a termination option. Extension periods (or periods after termination options) are only included in the lease term if the lease is reasonably certain to be extended (or not terminated).

The lease payments are discounted using incremental borrowing rates, as in the majority of leases held by the Group the interest rate implicit in the lease is not readily identifiable. Calculating the discount rate is an estimate made in calculating the lease liability. This rate is the rate that the Group would have to pay to borrow the funds necessary to obtain an asset of similar value to the right-of-use asset in a similar economic environment with similar terms, security and conditions. To determine the incremental borrowing rate, the Group uses a risk-free interest rate adjusted for credit risk, adjusting for terms specific to the lease including term, country and currency.

The Group is exposed to potential future increases in variable lease payments that are based on an index or rate, which are initially measured as at the commencement date, with any future changes in the index or rate excluded from the lease liability until they take effect. When adjustments to lease payments based on an index or rate take effect, the lease liability is reassessed and adjusted against the right-of-use asset.

Lease payments are allocated between principal and finance cost. The finance cost is charged to the Consolidated Statement of Comprehensive Income over the lease period so as to produce a constant periodic rate of interest on the remaining balance of the liability for each period.

Payments associated with short-term leases of Property, plant and equipment and all leases of low-value assets are recognised on a straight-line basis as an expense in the Consolidated Statement of Comprehensive Income. Short-term leases are leases with a lease term of 12 months or less. Low-value leases are those where the underlying asset value, when new, is $5,000 or less and includes IT equipment and small items of office furniture.

Contracts may contain both lease and non-lease components. The Group allocates the consideration in the contract to the lease and non-lease components based on their relative standalone prices.

Right-of-use assets are generally depreciated over the shorter of the asset's useful life and the lease term on a straight-line basis. If the Group is reasonably certain to exercise a purchase option, the right-of-use asset is depreciated over the underlying asset's useful life. It is impractical to calculate average asset lives exactly. However, the total lives range from approximately 10 to 50 years for buildings, and three to 15 years for motor vehicles and other assets.

There are no material lease agreements under which the Group is a lessor.

Business combinations and goodwill

In assessing whether an acquired set of assets and activities is a business or an asset, management will first elect whether to apply an optional concentration test to simplify the assessment. Where the concentration test is applied, the acquisition will be treated as the acquisition of an asset if substantially all of the fair value of the gross assets acquired (excluding cash and cash equivalents, deferred tax assets, and related goodwill) is concentrated in a single asset or group of similar identifiable assets.

Where the concentration test is not applied, or is not met, a further assessment of whether the acquired set of assets and activities is a business will be performed.

KJ The determination of whether an acquired set of assets and activities is a business or an asset can be judgemental, particularly if the target is not producing outputs. Management uses a number of factors to make this determination, which are primarily focused on whether the acquired set of assets and activities include substantive processes that mean the set is capable of being managed for the purpose of providing a return. Key determining factors include the stage of development of any assets acquired, the readiness and ability of the acquired set to produce outputs and the presence of key experienced employees capable of conducting activities required to develop or manufacture the assets. Typically, the specialised nature of many pharmaceutical assets and processes is such that until assets are substantively ready for production and promotion, there are not the required processes for a set of assets and activities to meet the definition of a business in IFRS 3.

On the acquisition of a business, fair values are attributed to the identifiable assets and liabilities. Attributing fair values is a key judgement; refer to Note 27 to the Financial Statements from page 193 for additional details. Contingent liabilities are also recorded at fair value unless the fair value cannot be measured reliably, in which case the value is subsumed into goodwill. Where fair values of acquired contingent liabilities cannot be measured reliably, the assumed contingent liability is not recognised but is disclosed in the same manner as other contingent liabilities.

Where not all of the equity of a subsidiary is acquired, the non-controlling interest is recognised either at fair value or at the non-controlling interest's proportionate share of the net assets of the subsidiary, on a case-by-case basis. Put options over non-controlling interests are recognised as a financial liability, with a corresponding entry in either Retained earnings or against non-controlling interest reserves on a case-by-case basis.

The timing and amount of future contingent elements of consideration is an estimate. Contingent consideration, which may include development and launch milestones, revenue threshold milestones and revenue-based royalties, is fair valued at the date of acquisition using decision-tree analysis with key inputs including probability of success, consideration of potential delays and revenue projections based on the Group's internal forecasts. Unsettled amounts of consideration are held at fair value within payables with changes in fair value recognised immediately in profit.

Goodwill is the difference between the fair value of the consideration and the fair value of net assets acquired.

Goodwill arising on acquisitions is capitalised and subject to an impairment review, both annually and when there is an indication that the carrying value may not be recoverable.

The Group's policy up to and including 1997 was to eliminate Goodwill arising upon acquisitions against reserves. Under IFRS 1 'First-time Adoption of International Financial Reporting Standards' and IFRS 3 'Business Combinations', such Goodwill will remain eliminated against reserves.

Subsidiaries

A subsidiary is an entity controlled, directly or indirectly, by AstraZeneca PLC. Control is regarded as the exposure or rights to the variable returns of the entity when combined with the power to affect those returns. Control is normally evidenced by holding more than 50% of the share capital of the company, however other agreements may be in place that result in control where they give AstraZeneca finance decision-making authority over the relevant activities of the company.

The financial results of subsidiaries are consolidated from the date control is obtained until the date that control ceases.

Inventories

Inventories are stated at the lower of cost and net realisable value. The first in, first out or an average method of valuation is used. For finished goods and work in progress, cost includes directly attributable costs and certain overhead expenses (including depreciation). Selling expenses and certain other overhead expenses (principally central administration costs) are excluded. Net realisable value is determined as estimated selling price less all estimated costs of completion and costs to be incurred in selling and distribution.

Write-downs of inventory occur in the general course of business and are recognised in Cost of sales for launched or approved products and in Research and development expense for products in development.

Assets held for sale

Non-current assets are classified as Assets held for sale when their carrying amount is to be recovered principally through a sale transaction and a sale is considered highly probable. A sale is considered highly probable only when the appropriate level of management has committed to the sale.

Assets held for sale are stated at the lower of carrying amount and fair value less costs to sell. Where there is a partial transfer of a non-current asset to held for sale, an allocation of value is made between the current and non-current portions of the asset based on the relative value of the two portions, unless there is a methodology that better reflects the asset to be disposed of.

Assets held for sale are neither depreciated nor amortised.

Trade and other receivables

Financial assets included in Trade and other receivables are recognised initially at fair value. The Group holds the Trade receivables with the objective to collect the contractual cash flows and therefore measures them subsequently at amortised cost using the effective interest method, less any impairment, based on expected credit losses.

Trade receivables that are subject to debt factoring arrangements are derecognised if they meet the conditions for derecognition detailed in IFRS 9 'Financial Instruments'.

Trade and other payables

Financial liabilities included in Trade and other payables are recognised initially at fair value. Subsequent to initial recognition they are measured at amortised cost using the effective interest method. Contingent consideration payables are held at fair value within Level 3 of the fair value hierarchy as defined in Note 12.

Financial instruments

The Group's financial instruments include Lease liabilities, Trade and other receivables and payables, liabilities for contingent consideration and put options under business combinations, and rights and obligations under employee benefit plans which are dealt with in specific accounting policies.

The Group's other financial instruments include:

- Cash and cash equivalents
- Fixed deposits
- Other investments
- Bank and other borrowings
- Derivatives.

Cash and cash equivalents

Cash and cash equivalents comprise cash in hand, current balances with banks and similar institutions, and highly liquid investments with maturities of three months or less when acquired. They are readily convertible into known amounts of cash and are held at amortised cost under the hold to collect classification, where they meet the hold to collect 'solely payments of principal and interest' test criteria under IFRS 9. Those not meeting these criteria are held at fair value through profit or loss. Cash and cash equivalents in the Consolidated Statement of Cash Flows include unsecured bank overdrafts at the balance sheet date where balances often fluctuate between a cash and overdraft position.

Fixed deposits

Fixed deposits, principally comprising funds held with banks and other financial institutions, are initially measured at fair value, plus direct transaction costs, and are subsequently measured at amortised cost using the effective interest method at each reporting date. Changes in carrying value are recognised in the Consolidated Statement of Comprehensive Income.

Other investments

Investments are classified as fair value through profit or loss (FVPL), unless the Group makes an irrevocable election at initial recognition for certain non-current equity investments to present changes in Other comprehensive income (FVOCI). If this election is made, there is no subsequent reclassification of fair value gains and losses to profit or loss following the derecognition of the investment.

Bank and other borrowings

The Group uses derivatives, principally interest rate swaps, to hedge the interest rate exposure inherent in a portion of its fixed interest rate debt. In such cases the Group will either designate the debt as FVPL when certain criteria are met or as the hedged item under a fair value hedge.

If the debt instrument is designated as FVPL, the debt is initially measured at fair value (with direct transaction costs being included in profit as an expense) and is remeasured to fair value at each reporting date with changes in carrying value being recognised in profit (along with changes in the fair value of the related derivative), with the exception of changes in the fair value of the debt instrument relating to own credit risk which are recorded in Other comprehensive income in accordance with IFRS 9. Such a designation has been made where this significantly reduces an accounting mismatch which would result from recognising gains and losses on different bases.

If the debt is designated as the hedged item under a fair value hedge, the debt is initially measured at fair value (with direct transaction costs being amortised over the life of the debt) and is remeasured for fair value changes in respect of the hedged risk at each reporting date with changes in carrying value being recognised in profit (along with changes in the fair value of the related derivative).

If the debt is designated in a cash flow hedge, the debt is measured at amortised cost (with gains or losses taken to profit and direct transaction costs being amortised over the life of the debt). The related derivative is remeasured for fair value changes at each reporting date with the portion of the gain or loss on the derivative that is determined to be an effective hedge recognised in Other comprehensive income. The amounts that have been recognised in Other comprehensive income are reclassified to profit in the same period that the hedged forecast cash flows affect profit. The reclassification adjustment is included in Finance expense in the Consolidated Statement of Comprehensive Income.

Other interest-bearing loans are initially measured at fair value (with direct transaction costs being amortised over the life of the loan) and are subsequently measured at amortised cost using the effective interest method at each reporting date. Changes in carrying value are recognised in the Consolidated Statement of Comprehensive Income.

Derivatives

Derivatives are initially measured at fair value (with direct transaction costs being included in profit as an expense) and are subsequently remeasured to fair value at each reporting date. Changes in carrying value of derivatives not designated in hedging relationships are recognised in profit or loss.

The Group has agreements with some bank counterparties whereby the parties agree to post cash collateral, for the benefit of the other, equivalent to the market valuation of all of the derivative positions above a predetermined threshold. Cash collateral received from counterparties is included within current Interest-bearing loans and borrowings within the Consolidated Statement of Financial Position. Cash collateral pledged to counterparties is recognised as a financial asset and is included in current Other investments within the Consolidated Statement of Financial Position. Cash collateral received is included in Movement in short-term borrowings within financing activities in the Consolidated Cash Flow Statement. Cash collateral paid is included in Movements in short-term investments within investing activities in the Consolidated Cash Flow Statement. The cash flow presentation of cash paid and received follows the Consolidated Statement of Financial Position presentation of the financial asset and financial liability that is recognised from posting the collateral.

Foreign currencies

Foreign currency transactions, being transactions denominated in a currency other than an individual Group entity's functional currency, are translated into the relevant functional currencies of individual Group entities at average rates for the relevant monthly accounting periods, which approximate to actual rates.

Monetary assets and liabilities arising from foreign currency transactions are retranslated at exchange rates prevailing at the reporting date. Exchange gains and losses on loans and on short-term foreign currency borrowings and deposits are included within Finance expense. Exchange differences on all other foreign currency transactions are recognised in Operating profit in the individual Group entity's accounting records.

Non-monetary items arising from foreign currency transactions are not retranslated in the individual Group entity's accounting records.

In the Consolidated Financial Statements, income and expense items for Group entities with a functional currency other than US dollars are translated into US dollars at average exchange rates, which approximate to actual rates, for the relevant accounting periods. Assets and liabilities are translated at the US dollar exchange rates prevailing at the reporting date. Exchange differences arising on consolidation are recognised in Other comprehensive income.

If certain criteria are met, non-US dollar-denominated loans or derivatives are designated as net investment hedges of foreign operations. Exchange differences arising on retranslation of net investments, and of foreign currency loans which are designated in an effective net investment hedge relationship, are recognised in Other comprehensive income in the Consolidated Financial Statements. Foreign exchange derivatives hedging net investments in foreign operations are carried at fair value. Effective fair value movements are recognised in Other comprehensive income, with any ineffectiveness taken to profit. Gains and losses accumulated in the translation reserve will be recycled to profit and loss when the foreign operation is sold.

Provisions

Provisions are recognised when there is either a legal or constructive present obligation as a result of a past event, it is probable that an outflow of economic resources will be required to settle the obligation and a reliable estimate can be made of the amount of the obligation. If the effect of the time value of money is material, provisions are discounted at the relevant pre-tax discount rate. Where provisions are discounted, the increase in the provision resulting from the passage of time is recognised as a finance cost.

Litigation and environmental liabilities

AstraZeneca is involved in legal disputes, the settlement of which may involve cost to the Group. A provision is made where an adverse outcome is probable and associated costs, including related legal costs, can be estimated reliably. Determining the timing of recognition of when an adverse outcome is probable is considered a key judgement, refer to Note 30 to the Financial Statements from page 204.

Where it is considered that the Group is more likely than not to prevail, or in the extremely rare circumstances where the amount of the legal liability cannot be estimated reliably, legal costs involved in defending the claim are charged to the Consolidated Statement of Comprehensive Income as they are incurred.

Where it is considered that the Group has a valid contract which provides the right to reimbursement (from insurance or otherwise) of legal costs and/or all or part of any loss incurred or for which a provision has been established, the amount expected to be received is recognised as an asset only when it is virtually certain.

AstraZeneca is exposed to environmental liabilities relating to its past operations, principally in respect of soil and groundwater remediation costs. Provisions for these costs are made when there is a present obligation and where it is probable that expenditure on remedial work will be required and a reliable estimate can be made of the cost.

Restructuring

Restructuring costs are incurred in programmes that are planned and controlled by the Group which materially change either the scope of a business undertaken by the Group, or the manner in which that business is conducted.

A provision for restructuring costs is recognised when a detailed formal plan is in place and has either been announced to those affected or has started to be implemented. The general recognition criteria for provisions must also be met, as described in the Provisions policy.

Impairment

The carrying values of non-financial assets, other than Inventories and Deferred tax assets, are reviewed at least annually to determine whether there is any indication of impairment. For Goodwill, Intangible assets under development and for any other assets where such indication exists, the asset's recoverable amount is estimated based on the greater of its value in use and its fair value less cost to sell. In assessing the recoverable amount, the estimated future cash flows, adjusted for the risks associated with the probability of success specific to each asset, as well as inflationary impacts, are discounted to their present value using a nominal discount rate that reflects current market assessments of the time value of money, the general risks affecting the pharmaceutical industry and other risks specific to each asset. For the purpose of impairment testing, assets are grouped together into the smallest group of assets that generates cash inflows from continuing use that are largely independent of the cash flows of other assets. Impairment losses are recognised immediately in the Consolidated Statement of Comprehensive Income.

Applicable accounting standards and interpretations issued but not yet adopted

At the date of authorisation of these financial statements, certain new accounting standards and amendments were in issue relating to the following standards and interpretations but not yet adopted by the Group:

- amendments to IAS 1 'Presentation of Financial Statements', effective for periods beginning on or after 1 January 2024 – endorsed by the UK Endorsement Board (UKEB) on 21 July 2023
- amendments to IFRS 16 'Leases', effective for periods beginning on or after 1 January 2024 – endorsed by the UKEB on 11 May 2023
- amendments to IAS 7 'Statement of Cash Flows' and IFRS 7 'Financial Instruments: Disclosures', effective for periods beginning on or after 1 January 2024 – endorsed by the UKEB on 28 November 2023
- amendments to IAS 21 'The Effects of Changes in Foreign Exchange Rates', effective for periods beginning on or after 1 January 2025 – not endorsed by the UKEB.

These new standards, amendments and interpretations are not expected to have a significant impact on the Group's net results.

1 Revenue

Product Sales

	2023					2022					2021				
	US $m	Emerging Markets $m	Europe $m	Rest of World $m	Total $m	US $m	Emerging Markets $m	Europe $m	Rest of World $m	Total $m	US $m	Emerging Markets $m	Europe $m	Rest of World $m	Total $m
Oncology:															
Tagrisso	**2,276**	**1,621**	**1,120**	**782**	**5,799**	2,007	1,567	1,023	847	5,444	1,780	1,336	986	913	5,015
Imfinzi	**2,317**	**360**	**758**	**802**	**4,237**	1,552	287	544	401	2,784	1,245	277	485	405	2,412
Lynparza	**1,254**	**542**	**734**	**281**	**2,811**	1,226	488	655	269	2,638	1,087	384	618	259	2,348
Calquence	**1,815**	**98**	**493**	**108**	**2,514**	1,657	45	286	69	2,057	1,089	20	111	18	1,238
Enhertu	**–**	**169**	**60**	**32**	**261**	–	51	21	7	79	–	12	4	1	17
Orpathys	**–**	**44**	**–**	**–**	**44**	–	33	–	–	33	–	16	–	–	16
Truqap	**6**	**–**	**–**	**–**	**6**	–	–	–	–	–	–	–	–	–	–
Zoladex	**14**	**687**	**133**	**118**	**952**	15	657	133	122	927	13	619	147	169	948
Faslodex	**31**	**142**	**28**	**96**	**297**	17	159	55	103	334	30	167	113	121	431
Others	**6**	**165**	**6**	**47**	**224**	10	250	9	66	335	11	391	17	96	515
	7,719	**3,828**	**3,332**	**2,266**	**17,145**	6,484	3,537	2,726	1,884	14,631	5,255	3,222	2,481	1,982	12,940
Cardiovascular, Renal & Metabolism:															
Farxiga	**1,451**	**2,211**	**1,881**	**420**	**5,963**	1,071	1,665	1,297	348	4,381	732	1,195	810	263	3,000
Brilinta	**744**	**285**	**271**	**24**	**1,324**	744	286	282	46	1,358	735	328	346	63	1,472
Lokelma	**214**	**50**	**58**	**90**	**412**	170	20	30	69	289	115	3	13	44	175
roxadustat	**–**	**271**	**–**	**–**	**271**	–	197	–	–	197	–	174	–	–	174
Andexxa	**75**	**–**	**62**	**45**	**182**	77	–	41	32	150	50	–	18	–	68
Crestor	**55**	**862**	**52**	**138**	**1,107**	65	794	41	148	1,048	80	775	52	189	1,096
Seloken/Toprol-XL	**1**	**621**	**11**	**7**	**640**	–	839	14	9	862	1	928	11	11	951
Onglyza	**49**	**131**	**32**	**15**	**227**	76	121	38	22	257	88	179	61	32	360
Bydureon	**133**	**3**	**27**	**–**	**163**	242	3	35	–	280	321	3	55	6	385
Others	**30**	**152**	**109**	**5**	**296**	34	194	128	10	366	52	195	146	14	407
	2,752	**4,586**	**2,503**	**744**	**10,585**	2,479	4,119	1,906	684	9,188	2,174	3,780	1,512	622	8,088
Respiratory & Immunology:															
Symbicort	**726**	**753**	**549**	**334**	**2,362**	973	608	582	375	2,538	1,065	609	670	384	2,728
Fasenra	**992**	**64**	**355**	**142**	**1,553**	906	43	305	142	1,396	790	20	286	162	1,258
Breztri	**383**	**161**	**81**	**52**	**677**	239	92	33	34	398	115	55	7	26	203
Saphnelo	**260**	**2**	**8**	**10**	**280**	111	–	2	3	116	8	–	–	–	8
Tezspire	**–**	**1**	**48**	**37**	**86**	–	–	2	2	4	–	–	–	–	–
Pulmicort	**28**	**575**	**68**	**42**	**713**	65	462	69	49	645	72	770	73	47	962
Bevespi	**34**	**6**	**17**	**1**	**58**	42	5	10	1	58	39	4	11	–	54
Daliresp/Daxas	**42**	**3**	**8**	**1**	**54**	176	3	9	1	189	207	4	15	1	227
Others	**82**	**206**	**30**	**6**	**324**	143	230	42	6	421	108	287	185	14	594
	2,547	**1,771**	**1,164**	**625**	**6,107**	2,655	1,443	1,054	613	5,765	2,404	1,749	1,247	634	6,034
Vaccines & Immune Therapies:															
COVID-19 mAbs	**–**	**6**	**12**	**114**	**132**	1,067	413	298	407	2,185	–	19	66	–	85
Vaxzevria	**–**	**10**	**2**	**–**	**12**	79	729	365	625	1,798	64	2,240	1,035	578	3,917
Beyfortus	**87**	**–**	**19**	**–**	**106**	–	–	–	–	–	–	–	–	–	–
Synagis	**(1)**	**195**	**175**	**177**	**546**	1	173	213	191	578	23	35	203	149	410
FluMist	**23**	**1**	**188**	**4**	**216**	21	1	151	2	175	27	2	222	2	253
	109	**212**	**396**	**295**	**1,012**	1,168	1,316	1,027	1,225	4,736	114	2,296	1,526	729	4,665
Rare Disease:															
Soliris	**1,734**	**424**	**670**	**317**	**3,145**	2,180	301	805	476	3,762	1,068	170	439	197	1,874
Ultomiris	**1,750**	**71**	**668**	**476**	**2,965**	1,136	38	481	310	1,965	381	9	169	129	688
Strensiq	**937**	**40**	**89**	**86**	**1,152**	769	35	78	76	958	297	10	36	35	378
Koselugo	**195**	**59**	**53**	**24**	**331**	162	26	20	–	208	104	1	3	–	108
Kanuma	**85**	**29**	**49**	**8**	**171**	77	31	44	8	160	32	7	20	3	62
	4,701	**623**	**1,529**	**911**	**7,764**	4,324	431	1,428	870	7,053	1,882	197	667	364	3,110
Other:															
Nexium	**115**	**578**	**53**	**199**	**945**	120	568	46	551	1,285	128	705	62	431	1,326
Others	**18**	**153**	**52**	**8**	**231**	24	220	77	19	340	43	212	109	14	378
	133	**731**	**105**	**207**	**1,176**	144	788	123	570	1,625	171	917	171	445	1,704
Product Sales	**17,961**	**11,751**	**9,029**	**5,048**	**43,789**	17,254	11,634	8,264	5,846	42,998	12,000	12,161	7,604	4,776	36,541

SE Rebates and chargebacks in the US

The major market where estimates are seen as significant is the US. When invoicing Product Sales in the US, we estimate the rebates and chargebacks we expect to pay and we consider there to be a significant estimate associated with the rebates for Managed Care, Medicaid and Medicare Part D. The total adjustment in respect of prior year net US Product Sales revenue in 2023 was 1.0% (2022: 1.3%; 2021: 1.5%); this represents the difference between our prior year estimates for rebates and chargebacks against actual amounts paid for the US business. The most significant of these relate to the Medicaid and state programmes with an adjustment in respect of prior year net US Product Sales revenue in 2023 of 0.3% (2022: 0.5%; 2021: 0.4%) and Managed Care and Medicare of 0.5% (2022: 0.8%; 2021: 0.7%).

The adjustment in respect of the prior year net US Product Sales revenue, excluding the Rare Disease therapy area in 2023, was 1.4% (2022: 1.6%; 2021: 1.8%), with Medicaid and state programmes of 0.4% (2022: 0.6%; 2021: 0.5%) and Managed Care and Medicare of 0.7% (2022: 1.1%; 2021: 0.8%).

These values demonstrate the level of sensitivity; further meaningful sensitivity is not able to be provided due to the large volume of variables that contribute to the overall rebates, chargebacks, returns and other revenue accruals. These variables include assumptions in respect of aggregate future sales levels, segment mix and customers' contractual performance, and in addition for Managed Care, US Medicaid and Medicare Part D, the channel inventory levels, and assumptions related to lag time. These assumptions are built up on a product-by-product and customer-by-customer basis, taking into account specific contract provisions coupled with expected performance, and are then aggregated into a weighted average rebate accrual rate for each of our products. Accrual rates are reviewed and adjusted on an as-needed basis. There may be further adjustments when actual rebates are invoiced based on utilisation information submitted to AstraZeneca (in the case of contractual rebates) and claims/invoices are received (in the case of regulatory rebates and chargebacks).

Alliance Revenue

	2023 $m	2022 $m	2021 $m
Enhertu	**1,022**	523	197
Tezspire	**259**	79	–
Beyfortus	**57**	–	–
Vaxzevria: royalties	**–**	76	64
Other royalty income	**81**	68	70
Other Alliance Revenue	**9**	9	57
	1,428	755	388

Collaboration Revenue

	2023 $m	2022 $m	2021 $m
Lynparza: regulatory milestones	**245**	355	–
Lynparza: sales milestones	**–**	–	400
COVID-19 mAbs: licence fees	**180**	–	–
Farxiga: sales milestones	**29**	–	–
tralokinumab: sales milestones	**20**	110	–
Beyfortus: regulatory milestones	**71**	25	–
Beyfortus: sales milestones	**27**	–	–
Nexium: sale of rights	**–**	62	75
Other Collaboration Revenue	**22**	46	13
	594	598	488

2 Operating profit

Operating profit includes the following significant items:

Cost of sales

In 2023, Cost of sales includes a charge of $114m (2022: charge of $3,484m) in relation to the release, in line with sales, of fair value uplift to inventory that was recognised under IFRS 3 'Business Combinations' upon the acquisition of Alexion (see Note 27).

During the year, $nil government grants were recognised within Cost of sales (2022: $nil; 2021: $290m). The grants recognised in 2021 related to funding of manufactured *Vaxzevria* product for the US government, which expired prior to being accepted by the FDA.

Selling, general and administrative expense

In 2023, Selling, general and administrative expense includes a charge of $520m (2022: charge of $182m; 2021: charge of $42m) resulting from changes in the fair value of contingent consideration arising from the acquisition of the diabetes alliance from BMS. These adjustments reflect revised estimates for future sales performance for the products acquired and, as a result, revised estimates for future royalties payable.

In 2023, Selling, general and administrative expense also includes a charge of $1,013m (2022: charge of $789m; 2021: charge of $48m) relating to a number of legal proceedings, including settlements in various jurisdictions in relation to several marketed products (see Note 30).

Research and development expense: Government grants

During the year $74m (2022: $113m; 2021: $531m) of government grants were recognised within Research and development expense. The grants recognised relate to funding for Research and development and related expenses for COVID-19 mAbs of $nil (2022: $112m; 2021: $222m) and *Vaxzevria* of $74m (2022: $1m; 2021: $309m).

2 Operating profit *continued*

Other operating income and expense

	2023 $m	2022 $m	2021 $m
Royalty income	**107**	59	62
Gains on disposal of intangible assets	**251**	104	513
Gains on disposal of investments in associates and joint ventures	**–**	–	776
Net gains/(losses) on disposal of other non-current assets	**41**	112	(4)
Update to the contractual relationships for *Beyfortus* (nirsevimab)	**712**	–	–
Other income[1]	**393**	439	453
Other expense	**(164)**	(200)	(308)
Other operating income and expense	**1,340**	514	1,492

[1] Other income in 2023 includes $75m of income from Allergan Plc. in respect of the development of brazikumab (2022: $138m; 2021: $99m).

Gains on disposal of intangible assets in 2023 includes $241m on disposal of commercial rights to *Pulmicort Flexhaler* to Cheplapharm in the US.

Gains on disposal of intangible assets in 2021 includes $317m on disposal of rights to *Crestor* in over 30 countries in Europe, except in the UK and Spain.

Net gains/(losses) on disposal of other non-current assets in 2022 includes a $125m gain in respect of the Waltham R&D site sale and leaseback in MA, US (see Note 8).

Gains on disposal of investments in associates and joint ventures in 2021 relates to the disposal of the 26.7% ownership in Viela Bio, as part of the acquisition of Viela Bio by Horizon Therapeutics plc. AstraZeneca received cash proceeds and profit of $776m upon closing, with the profit recorded as Other operating income.

As part of the total consideration received in respect of the agreement to sell US rights to *Synagis* in 2019, $400m in total has been received related to the rights to participate in the future cash flows from the US profits or losses for *Beyfortus* (nirsevimab), with $190m cash inflows in 2023 primarily relating to a cash receipt from Sobi following achievement of a regulatory milestone. At 31 December 2022, the full amount of $522m was recognised as a financial liability within non-current Other payables (the Profit Participation Liability) as the Group had not fully transferred the risks and rewards of the underlying cash flows arising from *Beyfortus* to Sobi. All associated cash flows have been presented within investing activities as the Group has received the cash in exchange for agreeing to transfer future cash flows relating to an intangible asset. In 2023, the contractual relationship between AstraZeneca and Sobi relating to future sales of *Beyfortus* in the US was replaced by a royalty relationship between Sanofi and Sobi. As a result, the Profit Participation Liability was extinguished and derecognised from the Consolidated Statement of Financial Position, with a gain of $712m recorded in Other operating income and expense. In 2021, as a result of the Probability of Technical/Regulatory Success unwind, an increase of $114m to the Profit Participation Liability was recorded with the cost recorded in Other operating expense.

Restructuring costs

During 2023, the Group has incurred $467m of net restructuring costs, of which $362m resulted from activities that are part of the Post Alexion Acquisition Group Review (PAAGR), bringing the cumulative charges under this programme to $2,067m. Costs in 2023 included $109m within Cost of sales due to the rationalisation of our manufacturing capacity and footprint across certain production sites, $207m within Selling, general and administrative expense in relation to HR, Finance, IT & other integration costs as well as some severance costs, $212m within Research and development expense in relation to the transformation of clinical, regulatory and other R&D data and systems, partially offset by income of $61m in Other operating income and expense generated from the disposal of assets impacted by the restructuring.

In conjunction with the acquisition of Alexion in 2021, the enlarged Group initiated the PAAGR; a global restructuring programme aimed at integrating systems, structure and processes, optimising the global footprint and prioritising resource allocations and investments. During 2023, the Group has identified all remaining activities and finalised the scope of the programme. This includes the commencement of work on the planned upgrade of the Group's Enterprise Resource Planning IT systems (Axial Project), which is expected to be substantially complete by the end of 2030. The Group has also continued to progress other legacy restructuring programmes.

Total restructuring costs in 2023 includes an impairment charge to Property, plant and equipment of $7m (2022: reversal of $4m; 2021: charge of $343m), impairment of Right-of-use assets of $13m (2022: $nil; 2021: $nil) and no impairment of Intangible assets (software development costs) (2022: reversal $17m; 2021: charge of $16m).

The tables below show the costs that have been charged in respect of restructuring programmes by cost category and type. Severance provisions are detailed in Note 21.

	2023 $m	2022 $m	2021 $m
Cost of sales	**109**	266	722
Distribution expense	**–**	2	–
Research and development expense	**212**	111	223
Selling, general and administrative expense	**207**	405	338
Other operating income and expense	**(61)**	(67)	–
Total charge	**467**	717	1,283

	2023 $m	2022 $m	2021 $m
Severance costs	**57**	187	217
Accelerated depreciation and impairment charges	**68**	135	371
Other[1]	**342**	395	695
Total charge	**467**	717	1,283

[1] Other costs are those incurred in designing and implementing the Group's various restructuring initiatives, including costs of integrating systems, structure and processes as part of the PAAGR, costs relating to the Alexion acquisition, internal project costs and external service fees.

Financial instruments

Included within Operating profit are the following net gains and losses on financial instruments:

	2023 $m	2022 $m	2021 $m
Gains/(losses) on forward foreign exchange contracts	**42**	150	(21)
Losses on receivables and payables	**(260)**	(203)	(42)
Total	**(218)**	(53)	(63)

Impairment charges

Details of impairment charges for 2023, 2022 and 2021 are included in Notes 7, 8 and 10.

3 Finance income and expense

	2023 $m	2022 $m	2021 $m
Finance income			
Returns on deposits and equity securities	**291**	78	12
Fair value gains on debt and interest rate swaps	**43**	14	–
Interest income on income tax balances	**10**	3	31
Total	**344**	95	43
Finance expense			
Interest on debt, leases and other financing costs	**(1,132)**	(889)	(774)
Net interest on post-employment defined benefit plan net liabilities (Note 22)	**(38)**	(29)	(26)
Net exchange losses	**(34)**	(16)	(20)
Discount unwind on contingent consideration arising from business combinations (Note 20)	**(132)**	(168)	(226)
Discount unwind on other long-term liabilities[1]	**(200)**	(216)	(248)
Fair value losses on debt and interest rate swaps	**(3)**	–	(4)
Interest expense on income tax balances	**(87)**	(28)	(2)
Total	**(1,626)**	(1,346)	(1,300)
Net finance expense	**(1,282)**	(1,251)	(1,257)

[1] Included within Discount unwind on other long-term liabilities is $55m relating to the Acerta Pharma share purchase liability (2022: $108m; 2021: $161m) and the discount unwind of other payables of $100m (2022: $nil; 2021: $nil) that have arisen from intangible asset additions, see Note 20 for further details.

There was no interest capitalised during the year.

Financial instruments

Included within finance income and expense are the following net gains and losses on financial instruments:

	2023 $m	2022 $m	2021 $m
Interest and fair value adjustments in respect of debt designated at fair value through profit or loss, net of derivatives	**13**	(9)	(5)
Interest and changes in carrying values of debt designated as hedged items in fair value hedges, net of derivatives	**–**	–	(9)
Interest and fair value changes on fixed and short-term deposits, equity securities, other derivatives and tax balances	**177**	54	16
Interest on debt, commercial paper, overdrafts and lease liabilities held at amortised cost	**(1,004)**	(837)	(738)

The interest rate fair value hedges were closed in 2021. Fair value gain or loss of $nil (2022: $nil; 2021: loss of $33m) on interest rate fair value hedging instruments and $nil fair value gain or loss (2022: $nil; 2021: gain of $29m) on the related hedged items have been included within Interest and changes in carrying values of debt designated as hedged items in fair value hedges, net of derivatives.

Fair value loss of $1m (2022: loss of $25m; 2021: loss of $19m) on derivatives related to debt instruments designated at FVPL and $7m fair value gain (2022: gain of $26m; 2021: gain of $19m) on debt instruments designated at FVPL have been included within Interest and fair value adjustments in respect of debt designated at fair value through profit or loss, net of derivatives.

4 Taxation

Taxation charge/(credit) recognised in the Consolidated Statement of Comprehensive Income is as follows:

	2023 $m	2022 $m	2021 $m
Current tax			
Current year	**2,417**	1,823	1,200
Adjustment to prior years	**28**	(187)	(5)
Total	**2,445**	1,636	1,195
Deferred tax			
Origination and reversal of temporary differences	**(1,473)**	(2,563)	(1,417)
Adjustment to prior years	**(34)**	135	(158)
Total	**(1,507)**	(2,428)	(1,575)
Taxation charge/(credit) recognised in the profit for the year	**938**	(792)	(380)

Taxation credit/(charge) recognised in Other comprehensive income is as follows:

	2023 $m	2022 $m	2021 $m
Current and deferred tax			
Items that will not be reclassified to profit or loss:			
Remeasurement of the defined benefit liability	**102**	(231)	(117)
Equity investments measured at fair value through Other comprehensive income	**(1)**	15	27
Movement in deferred taxes relating to changes in tax rates	**–**	–	195
Total	**101**	(216)	105
Items that may be reclassified subsequently to profit or loss:			
Foreign exchange arising on designated liabilities in net investment hedges	**(24)**	73	43
Fair value movement on cash flow hedges	**12**	–	(5)
Movement in deferred taxes relating to changes in tax rates	**–**	–	8
Total	**(12)**	73	46
Taxation credit/(charge) recognised in Other comprehensive income	**89**	(143)	151

The reported tax rate in the year was 14% and included a favourable adjustment of $828m to deferred taxes arising from a UK group company undertaking a routine intragroup purchase of certain intellectual property. This intragroup purchase resulted in additional amortisable tax basis in the UK which can be fully utilised against forecast UK taxable profits. Deferred tax has been recognised on this additional tax basis in the year. This is offset by updates to tax liabilities following progress of reviews by tax authorities and administrative appeal processes and derecognition of deferred tax assets following changes to forecast taxable income of specific subsidiaries.

The income tax paid for the year was $2,366m.

Taxation has been provided at current rates on the profits earned for the years covered by the Group Financial Statements. The 2023 prior year current tax adjustment relates mainly to tax accrual to tax return adjustments and updates to provisions for tax contingencies. The 2022 prior year current tax adjustment relates mainly to tax accrual to tax return adjustments and updates to provisions for tax contingencies. The 2021 prior year current tax adjustment relates mainly to tax accrual to tax return adjustments.

The 2023 prior year deferred tax adjustment relates mainly to tax accrual to tax return adjustments and adjustments to the recognition of deferred tax assets. The 2022 prior year deferred tax adjustments relate mainly to tax accrual to tax return adjustments and updates to provisions for tax contingencies. The 2021 prior year deferred tax adjustments relate mainly to tax accrual to tax return adjustments and updates to estimates of prior year tax liabilities following settlements with tax authorities.

To the extent that dividends remitted from overseas subsidiaries, joint ventures and associates are expected to result in additional taxes, appropriate amounts have been provided for. Unremitted earnings or differences in the carrying value and tax basis of investments may be liable to additional taxes if distributed as dividends or on a liquidation event. Deferred tax is provided for such differences in relation to Group entities where management is intending to remit earnings in the foreseeable future. The aggregate amount of gross temporary differences associated with investments in subsidiaries, partnerships and branches for which deferred tax liabilities have not been recognised totalled approximately $7,565m at 31 December 2023, $3,221m of which has a corresponding deductible temporary difference of the same gross value which is not recognised as it is not probable of reversing in the foreseeable future but on which different tax rates apply.

Factors affecting future tax charges

As a group with worldwide operations, AstraZeneca is subject to several factors that may affect future tax charges, principally the levels and mix of profitability in different jurisdictions, transfer pricing regulations, tax rates imposed and tax regime reforms. On 11 July 2023, Finance (No.2) Act 2023 was enacted in the UK, introducing a global minimum effective tax rate of 15%. The legislation implements a domestic top-up tax and a multinational top-up tax, effective for accounting periods starting on or after 31 December 2023. A Pillar 2 Effective Tax Rate (ETR) is calculated for every jurisdiction in which the Group operates and Pillar 2 Income Taxes will arise when the Pillar 2 ETR is less than 15%. Pillar 2 Income Taxes could be payable in the UK, or the local jurisdiction if it has introduced a Qualifying Domestic Minimum top-up Tax. AstraZeneca is continuing to monitor potential impacts as further guidance is published by the OECD and territories implement legislation to enact the rules. Management has performed an assessment of the impact of the UK's Pillar 2 rules based on our 2023 data and no Pillar 2 Income Taxes are expected to arise for most jurisdictions in which the Group operates. It is anticipated that AstraZeneca may, in some jurisdictions, incur additional tax liabilities, but the effect on the reported tax charge is reasonably estimated to be immaterial.

The Group has applied the exemption under the IAS 12 'Income Taxes' amendment for recognising and disclosing information about deferred tax assets and liabilities related to top-up income taxes.

Tax reconciliation to UK statutory rate

The table below reconciles the UK statutory tax charge to the Group's total tax charge/(credit):

	2023 $m	2022 $m	2021 $m
Profit/(loss) before tax	**6,899**	2,501	(265)
Notional taxation charge at UK corporation tax rate of 23.5% (2022: 19%; 2021: 19%)	**1,621**	475	(50)
Differences in effective overseas tax rates[1]	**(224)**	(59)	1
Deferred tax (credit)/charge relating to change in tax rates[2]	**(66)**	(108)	54
Unrecognised deferred tax asset[3]	**341**	68	32
Items not deductible for tax purposes	**46**	90	208
Items not chargeable for tax purposes	**–**	–	(163)
Intellectual Property incentive regimes[4]	**(367)**	(265)	–
Other items[5]	**(406)**	(941)	(299)
Adjustments in respect of prior years[6]	**(7)**	(52)	(163)
Total tax charge/(credit) for the year	**938**	(792)	(380)

1 Includes the impact of the reversal of a $1.9bn deferred tax liability that was recognised in a previous business combination (31 December 2023: $0.9bn) and originated in goodwill. Some of this liability reverses in an innovation incentive regime and gives rise to a post-acquisition benefit to the tax charge that is not material year-on-year. Determining the cumulative post-acquisition benefit over the life of the asset involves estimates and judgements as the amount of income that qualifies for the IP incentive regime varies. The actual tax rates applied over the life of the asset are expected to be a blend between the Dutch statutory tax rate and intellectual property incentive regime rate.

2 The 2023 item relates to the impact of the difference in the UK current and deferred tax rates during 2023. The 2022 item relates to the impact of the US state tax rate change and the impact of the difference in the UK current tax and deferred tax rates during 2022. The 2021 item mainly relates to substantive enactment of the increase in UK Corporation Tax rate from 19% to 25% effective 1 April 2023 and the increase in the Dutch Corporate Income Tax rate from 25% to 25.8% effective 1 January 2022.

3 This includes the derecognition of deferred tax assets where it is no longer probable that there will be sufficient forecast future profits to utilise the assets.

4 Previously reported within the line Items not deductible for tax purposes.

5 Other items in 2023 include a favourable adjustment of $828m to deferred taxes arising from a UK company undertaking an intragroup purchase of certain intellectual property (see page 164 for more information) offset by a charge of $422m mainly relating to updates to tax liabilities following progress of reviews by tax authorities, administrative appeal processes and adjustments arising on expiry of the relevant statute of limitations (see Note 30 for more details). Other items in 2022 includes a one-time favourable net adjustment of $876m to deferred taxes arising from an internal reorganisation to integrate the Alexion organisation which took place in 2022 and a credit of $65m relating to the reduction of tax liabilities arising from adjustments on expiry of the relevant statute of limitations. Other items in 2021 relate to a net credit of $299m relating to the reduction of tax liabilities arising from updates to estimates of prior year tax liabilities following settlements with tax authorities and on expiry of the relevant statute of limitations partially offset by a provision for transfer pricing and other contingencies.

6 Further details explaining the adjustments in respect of prior years are set out on page 164.

AstraZeneca is domiciled in the UK but operates in other countries where the tax rates and laws are different to those in the UK. The impact on differences in effective overseas tax rates on the Group's overall tax charge is noted above. Profits arising from our manufacturing operation in Puerto Rico are granted special status and are taxed at a reduced rate compared with the normal rate of tax in that territory under a tax incentive grant continuing until 2031. The Group receives intellectual property incentives in certain jurisdictions, resulting in a reduction to the tax charge in the income statement of $367m in 2023.

4 Taxation *continued*

Deferred tax

The total movement in the net deferred tax balance in the year was $1,555m. The movements are as follows:

	Intangibles, Property, plant and equipment[1] $m	Pension and post-retirement benefits $m	Elimination of unrealised profit on inventory $m	Untaxed reserves[2] $m	Losses and tax credits carried forward $m	Accrued expenses $m	Other $m	Total $m
Net deferred tax balance at 1 January 2021	(2,627)	656	1,807	(801)	714	660	111	520
Income statement	782	(166)	(59)	(139)	307	697	153	1,575
Other comprehensive income	52	83	–	–	–	–	40	175
Equity	–	–	–	–	–	4	10	14
Additions through business combinations[3]	(3,744)	13	166	–	507	(1,263)	147	(4,174)
Exchange	57	(33)	(53)	78	(10)	(13)	(12)	14
Net deferred tax balance at 31 December 2021	(5,480)	553	1,861	(862)	1,518	85	449	(1,876)
Income statement[4]	1,414	(55)	274	38	(126)	778	105	2,428
Other comprehensive income	72	(231)	–	–	–	–	16	(143)
Equity	–	–	–	–	–	–	38	38
Exchange	63	(36)	(111)	108	(134)	17	(35)	(128)
Net deferred tax balance at 31 December 2022	(3,931)	231	2,024	(716)	1,258	880	573	319
Income statement[4]	**1,518**	**(69)**	**426**	**96**	**(308)**	**(23)**	**(133)**	**1,507**
Other comprehensive income	**(16)**	**106**	**–**	**–**	**–**	**–**	**(23)**	**67**
Equity	**–**	**–**	**–**	**–**	**–**	**–**	**(21)**	**(21)**
Additions	**(24)**	**–**	**–**	**–**	**50**	**–**	**(1)**	**25**
Exchange	**(38)**	**15**	**(64)**	**(40)**	**106**	**32**	**(34)**	**(23)**
Net deferred tax balance at 31 December 2023[5]	**(2,491)**	**283**	**2,386**	**(660)**	**1,106**	**889**	**361**	**1,874**

[1] Includes deferred tax assets of $507m on liabilities in respect of intangibles and $188m on lease liabilities in respect of right-of-use assets.

[2] Untaxed reserves relate to taxable profits where the tax liability is deferred to later periods.

[3] The deferred tax liability of $4,174m relates to deferred tax on purchase accounting adjustments arising from the acquisition of Alexion (Note 27). Accrued expenses includes the deferred tax on the purchase accounting of inventory.

[4] The Income statement movement in 2023 includes $828m arising from a UK company undertaking an intragroup purchase of certain intellectual property (see page 164 for further details). The Income statement movement in 2022 includes the aforementioned net adjustment to deferred taxes of $876m arising on the internal legal entity reorganisation to integrate the Alexion organisation, the majority of which arises on Intangibles, Property, plant and equipment.

[5] The Group recognises deferred tax assets to the extent that there are either taxable temporary differences or that it is probable that sufficient future taxable profits will arise, against which these deductible temporary differences can be utilised. The US includes a net deferred tax asset of $142m and the UK includes a net deferred tax asset of $1,723m as at 31 December 2023 which includes tax losses and other deductible temporary differences. The Group has performed an assessment of recovery of deferred tax assets and for these respective entities, the Group has forecasted future taxable profits and considers that it is probable that sufficient future taxable profits will arise against which these deductible temporary differences can be utilised. In arriving at these forecasts, the Group has reviewed the Group-level budgets and forecasts and the ability of those entities to generate future income from developing and commercialising products, including local tax laws and the scheduling of reversal of deductible temporary differences. Deferred tax assets are recognised on the basis there is sufficient forecast future taxable profits arising from the performance of on-market products and pipeline assets, including *Imfinzi*. For the UK, losses are forecast to be utilised within five years. For the US, recognised deferred taxes on losses and other items are forecast to be utilised within 15 years. It is considered that these sources of income are sufficiently predictable or diversified to support these recognition periods. A sensitivity assessment has been performed which shows that a change in profit of 10% results in an immaterial adjustment to the amount of deferred tax asset recognised. Assessing the availability of future taxable income to support recognition of deferred tax assets relies upon our Group forecasts and changes in these Group forecasts will impact the recoverability of deferred tax assets. To the extent that there are neither taxable temporary differences nor sufficient taxable profits, no deferred tax asset is recognised and details of unrecognised deferred tax assets are included in the table below.

The net deferred tax balance, before the offset of balances within countries, consists of:

	Intangibles, Property, plant and equipment $m	Pension and post-retirement benefits $m	Elimination of unrealised profit on inventory $m	Untaxed reserves $m	Losses and tax credits carried forward $m	Accrued expenses $m	Other $m	Total $m
Deferred tax assets at 31 December 2021	1,476	574	1,910	–	1,571	1,117	618	7,266
Deferred tax liabilities at 31 December 2021	(6,956)	(21)	(49)	(862)	(53)	(1,032)	(169)	(9,142)
Net deferred tax balance at 31 December 2021	(5,480)	553	1,861	(862)	1,518	85	449	(1,876)
Deferred tax assets at 31 December 2022	1,499	276	2,048	–	1,274	1,005	609	6,711
Deferred tax liabilities at 31 December 2022	(5,430)	(45)	(24)	(716)	(16)	(125)	(36)	(6,392)
Net deferred tax balance at 31 December 2022	(3,931)	231	2,024	(716)	1,258	880	573	319
Deferred tax assets at 31 December 2023	**1,883**	**313**	**2,386**	**–**	**1,141**	**1,011**	**488**	**7,222**
Deferred tax liabilities at 31 December 2023	**(4,374)**	**(30)**	**–**	**(660)**	**(35)**	**(122)**	**(127)**	**(5,348)**
Net deferred tax balance at 31 December 2023	**(2,491)**	**283**	**2,386**	**(660)**	**1,106**	**889**	**361**	**1,874**

Analysed in the Consolidated Statement of Financial Position, after offset of balances within countries, as follows:

	2023 $m	2022 $m	2021 $m
Deferred tax assets	**4,718**	3,263	4,330
Deferred tax liabilities	**(2,844)**	(2,944)	(6,206)
Net deferred tax balance	**1,874**	319	(1,876)

Unrecognised deferred tax assets

Deferred tax assets (DTA) of $1,251m (2022: $807m; 2021: $719m) have not been recognised in respect of deductible temporary differences because it is not probable that future taxable profit will be available against which the Group can utilise the benefits therefrom.

	2023 Temporary differences $m	**2023 Unrecognised DTA $m**	2022 Temporary differences $m	2022 Unrecognised DTA $m	2021 Temporary differences $m	2021 Unrecognised DTA $m
Temporary differences expiring:						
Within 10 years	**87**	**22**	104	26	4	1
More than 10 years	**153**	**32**	153	32	53	11
Indefinite	**2,788**	**595**	686	163	300	79
	3,028	**649**	943	221	357	91
Tax credits and State tax losses expiring:						
Within 10 years		**152**		115		101
More than 10 years		**363**		384		441
Indefinite		**87**		87		86
		602		586		628
Total		**1,251**		807		719

5 Earnings per $0.25 Ordinary Share

	2023	2022	2021
Profit for the year attributable to equity holders ($m)	**5,955**	3,288	112
Basic earnings per Ordinary Share	**$3.84**	$2.12	$0.08
Diluted earnings per Ordinary Share	**$3.81**	$2.11	$0.08
Weighted average number of Ordinary Shares in issue for basic earnings (millions)	**1,549**	1,548	1,418
Dilutive impact of share options outstanding (millions)	**13**	12	9
Diluted weighted average number of Ordinary Shares in issue (millions)	**1,562**	1,560	1,427

The earnings figures used in the calculations above are post-tax. The weighted average number of Ordinary Shares in issue is calculated by taking the number of Ordinary Shares outstanding each day weighted by the number of days that those shares were outstanding.

6 Segment information

The Group has reviewed its assessment of reportable segments under IFRS 8 'Operating Segments' and concluded that the Group continues to have one reportable segment.

KJ This determination is considered to be a Key Judgement and this judgement has been taken with reference to the following factors:

1 The level of integration across the different functions of the Group's pharmaceutical business:
AstraZeneca is engaged in a single business activity of pharmaceuticals and the Group does not have multiple operating segments. AstraZeneca's pharmaceuticals business consists of the discovery and development of new products, which are then manufactured, marketed and sold. All of these functional activities take place (and are managed) globally on a highly integrated basis. These individual functional areas are not managed separately.

2 The identification of the Chief Operating Decision Maker (CODM) and the nature and extent of the financial information reviewed by the CODM:
The SET, established and chaired by the CEO, is the vehicle through which the CEO exercises the authority delegated to him from the Board for the management, development and performance of AstraZeneca as a whole. It is considered that the SET is AstraZeneca's Chief Operating Decision Making body (as defined by IFRS 8). The operation of the SET is principally driven by the management of the Commercial operations, R&D, manufacturing and supply and enabling functions. All significant operating decisions are undertaken by the SET. While members of the SET have responsibility for implementation of decisions in their respective areas, operating decision making is at SET level as a whole. Where necessary, these are implemented through cross-functional sub-committees that consider the Group-wide impact of a new decision. For example, product launch decisions would be initially considered by the SET and, on approval, passed to an appropriate sub team for implementation. The ability of the enterprise to develop, produce, deliver and commercialise a wide range of pharmaceutical products are central to the SET decision-making process.

In assessing performance, the SET reviews financial information on an integrated basis for the Group as a whole, substantially in the form of, and on the same basis as, the Group's IFRS Financial Statements. The high upfront cost of discovering and developing new products, coupled with the relatively insignificant and stable unit cost of production, means that there is not the clear link that exists in many manufacturing businesses between the revenue generated on an individual product sale and the associated cost and hence margin generated on a product. Consequently, the profitability of individual drugs or classes of drugs is not considered a key measure of performance for the business and is not monitored by the SET. The focus of additional financial information reviewed is at brand sales and Gross Margin level within specific geographies. Expenditure analysis is completed for the science units, operations and enabling functions; there is no allocation of these centrally managed Group costs to the individual product or brands. The bonus of SET members' continues to be derived from the Group scorecard outcome as discussed in our Directors' Remuneration Report.

3 How resources are allocated:
Resources are allocated on a Group-wide basis according to need. In particular, capital expenditure, in-licensing, and R&D resources are allocated between activities on merit, based on overall therapeutic considerations and strategy under the aegis of the Group's Early-Stage Product Committees and Late-Stage Product Committees.

6 Segment information *continued*

Geographic areas

The following table shows information for Total Revenue by geographic area and material countries. The additional tables show the Operating profit and Profit before tax made by companies located in that area, together with Non-current assets, Total assets, Assets acquired, Net operating assets, and Property, plant and equipment owned by the same companies. Product Sales by geographic market are included in the area/country where the legal entity resides and from which those sales were made.

	Total Revenue		
	2023 $m	2022 $m	2021 $m
UK	**3,368**	3,117	3,245
Rest of Europe			
France	**1,152**	1,107	915
Germany	**2,099**	1,902	1,486
Italy	**813**	735	577
Spain	**847**	738	578
Sweden	**1,704**	1,721	2,322
Others	**3,110**	2,706	1,949
	9,725	8,909	7,827
The Americas			
Canada	**967**	1,166	772
US	**18,121**	17,278	12,047
Others	**1,683**	1,175	1,203
	20,771	19,619	14,022
Asia, Africa & Australasia			
Australia	**390**	571	547
China	**5,872**	5,743	6,002
Japan	**3,640**	3,986	3,395
Others	**2,045**	2,406	2,379
	11,947	12,706	12,323
Total Revenue	**45,811**	44,351	37,417

Total Revenue outside of the UK totalled $42,443m for the year ended 31 December 2023 (2022: $41,234m; 2021: $34,172m).

	Operating profit/(loss)			Profit/(loss) before tax		
	2023 $m	2022 $m	2021 $m	**2023 $m**	2022 $m	2021 $m
UK	**665**	1,120	(950)	**(577)**	272	(1,477)
Rest of Europe	**4,885**	2,945	2,999	**4,999**	2,709	2,682
The Americas	**1,495**	(954)	(1,936)	**1,328**	(1,140)	(2,401)
Asia, Africa & Australasia	**1,148**	646	943	**1,149**	660	931
Continuing operations	**8,193**	3,757	1,056	**6,899**	2,501	(265)

	Non-current assets[1,2]			Total assets		
	2023 $m	2022 $m	2021 $m	**2023 $m**	2022 $m	2021 $m
UK	**8,626**	8,208	7,310	**19,616**	16,786	16,615
Rest of Europe	**32,905**	34,301	38,286	**40,638**	40,669	48,383
The Americas	**26,524**	25,425	26,333	**34,754**	32,990	34,301
Asia, Africa & Australasia	**910**	929	1,078	**6,111**	6,038	6,064
Continuing operations	**68,965**	68,863	73,007	**101,119**	96,483	105,363

	Assets acquired[3]			Net operating assets[4]		
	2023 $m	2022 $m	2021 $m	**2023 $m**	2022 $m	2021 $m
UK	**812**	2,301	810	**5,275**	3,863	3,239
Rest of Europe	**1,770**	522	26,527	**32,920**	32,726	40,161
The Americas	**1,925**	421	10,810	**22,746**	23,290	24,786
Asia, Africa & Australasia	**117**	51	94	**1,405**	1,895	736
Continuing operations	**4,624**	3,295	38,241	**62,346**	61,774	68,922

[1] Non-current assets exclude Deferred tax assets and Derivative financial instruments.
[2] The Group has revised the presentation of Non-current assets to exclude certain financial assets and post-employment benefit assets which previously had been included in this disclosure. This resulted in a decrease in 2022 of $1,690m and in 2021 of $1,680m.
[3] Included in Assets acquired are those assets that are expected to be used during more than one period (Property, plant and equipment, Goodwill and Intangible assets) and include those acquired through business combinations (Note 27).
[4] Net operating assets exclude short-term investments, cash, short-term borrowings, loans, Derivative financial instruments, Retirement benefit obligations and non-operating receivables and payables.

	Property, plant and equipment		
	2023 $m	2022 $m	2021 $m
UK	**2,831**	2,526	2,542
Ireland	**1,164**	1,040	969
Sweden	**1,678**	1,472	1,593
US	**2,371**	2,176	2,660
Rest of the world	**1,358**	1,293	1,419
Continuing operations	**9,402**	8,507	9,183

Geographic markets

The table below shows Product Sales in each geographic market in which customers are located.

	2023 $m	2022 $m	2021 $m
UK	**978**	996	1,206
Rest of Europe	**8,201**	7,503	6,792
The Americas	**20,855**	20,126	14,893
Asia, Africa & Australasia	**13,755**	14,373	13,650
Continuing operations	**43,789**	42,998	36,541

Product Sales are recognised when control of the goods has been transferred to a third party. A significant proportion of this is upon delivery of the products to wholesalers. One wholesaler (2022: one; 2021: one) individually represented greater than 10% of Product Sales. The value of Product Sales to this wholesaler was $6,513m (2022: $5,387m; 2021: $4,862m).

7 Property, plant and equipment

	Land and buildings $m	Plant and equipment $m	Assets in course of construction $m	Total Property, plant and equipment $m
Cost				
At 1 January 2021	5,851	7,738	2,478	16,067
Additions through business combinations (Note 27)	542	339	254	1,135
Capital expenditure	9	31	1,112	1,152
Transfer of assets into use	236	611	(847)	–
Disposals and other movements	(92)	(469)	(200)	(761)
Exchange adjustments	(169)	(347)	(69)	(585)
At 31 December 2021	6,377	7,903	2,728	17,008
Capital expenditure	5	19	1,042	1,066
Transfer of assets into use	226	683	(909)	–
Transfer of Assets held for sale (Note 18)	(434)	(293)	–	(727)
Disposals and other movements	(425)	(146)	28	(543)
Exchange adjustments	(309)	(610)	(236)	(1,155)
At 31 December 2022	5,440	7,556	2,653	15,649
Additions through business combinations (Note 27)	**2**	**10**	**–**	**12**
Capital expenditure	**9**	**43**	**1,402**	**1,454**
Transfer of assets into use	**959**	**1,158**	**(2,117)**	**–**
Disposals and other movements	**(6)**	**(255)**	**(11)**	**(272)**
Exchange adjustments	**65**	**192**	**118**	**375**
At 31 December 2023	**6,469**	**8,704**	**2,045**	**17,218**
Depreciation and impairment				
At 1 January 2021	2,826	4,990	–	7,816
Depreciation charge for the year	231	493	–	724
Impairment (reversal)/charge	(1)	121	223	343
Disposals and other movements	(74)	(428)	(223)	(725)
Exchange adjustments	(105)	(228)	–	(333)
At 31 December 2021	2,877	4,948	–	7,825
Depreciation charge for the year	286	566	–	852
Impairment charge/(reversal)	20	8	(28)	–
Transferred to Assets held for sale (Note 18)	(300)	(277)	–	(577)
Disposals and other movements	(227)	(188)	28	(387)
Exchange adjustments	(167)	(404)	–	(571)
At 31 December 2022	2,489	4,653	–	7,142
Depreciation charge for the year	**241**	**492**	**–**	**733**
Impairment charge	**4**	**4**	**–**	**8**
Disposals and other movements	**(13)**	**(220)**	**–**	**(233)**
Exchange adjustments	**44**	**122**	**–**	**166**
At 31 December 2023	**2,765**	**5,051**	**–**	**7,816**

7 Property, plant and equipment *continued*

	Land and buildings $m	Plant and equipment $m	Assets in course of construction $m	Total Property, plant and equipment $m
Net book value				
At 31 December 2021	3,500	2,955	2,728	9,183
At 31 December 2022	2,951	2,903	2,653	8,507
At 31 December 2023	**3,704**	**3,653**	**2,045**	**9,402**

Impairment charges in 2021 totalling $343m were recognised for Plant and equipment and Assets in course of construction due to the rationalisation of our manufacturing capacity and footprint across certain production sites as a result of restructuring programmes, including the PAAGR (see Note 2). These charges were recognised in Cost of sales. The revised carrying value of the impacted assets is $nil, under fair value less costs to sell.

	2023 $m	2022 $m	2021 $m
The net book value of land and buildings comprised:			
Freeholds	**2,976**	2,555	2,985
Leasehold	**728**	396	515

8 Leases

Right-of-use assets

	Land and buildings $m	Motor vehicles $m	Other $m	Total Right-of-use assets $m
Cost				
At 1 January 2021	735	272	36	1,043
Additions through business combinations (Note 27)	255	8	–	263
Additions – separately acquired	145	98	2	245
Disposals and other movements	25	(44)	(4)	(23)
Exchange adjustments	(27)	(13)	(1)	(41)
At 31 December 2021	1,133	321	33	1,487
Additions through business combinations (Note 27)	4	–	–	4
Additions – separately acquired	140	81	14	235
Disposals and other movements	(33)	(58)	(13)	(104)
Exchange adjustments	(62)	(15)	(2)	(79)
At 31 December 2022	1,182	329	32	1,543
Additions through business combinations (Note 27)	**8**	**–**	**–**	**8**
Additions – separately acquired	**220**	**219**	**5**	**444**
Disposals and other movements	**(71)**	**(57)**	**(2)**	**(130)**
Exchange adjustments	**13**	**4**	**1**	**18**
At 31 December 2023	**1,352**	**495**	**36**	**1,883**
Depreciation and impairment				
At 1 January 2021	247	117	13	377
Depreciation charge for the year	144	85	6	235
Disposals and other movements	(54)	(42)	–	(96)
Exchange adjustments	(11)	(6)	–	(17)
At 31 December 2021	326	154	19	499
Depreciation charge for the year	160	80	6	246
Impairment charge	2	–	–	2
Disposals and other movements	(54)	(50)	(10)	(114)
Exchange adjustments	(23)	(8)	(1)	(32)
At 31 December 2022	411	176	14	601
Depreciation charge for the year	**170**	**98**	**7**	**275**
Impairment charge	**14**	**–**	**–**	**14**
Disposals and other movements	**(53)**	**(61)**	**(2)**	**(116)**
Exchange adjustments	**7**	**2**	**–**	**9**
At 31 December 2023	**549**	**215**	**19**	**783**
Net book value				
At 31 December 2021	807	167	14	988
At 31 December 2022	771	153	18	942
At 31 December 2023	**803**	**280**	**17**	**1,100**

Lease liabilities

	2023 $m	2022 $m	2021 $m
The present value of lease liabilities is as follows:			
Within one year	**(271)**	(228)	(233)
Later than one year and not later than five years	**(657)**	(549)	(544)
Later than five years	**(200)**	(176)	(210)
Total lease liabilities	**(1,128)**	(953)	(987)

The interest expense on lease liabilities included within Finance expense was $33m (2022: $24m; 2021: $22m).

The total cash outflow for leases in 2023 was $301m (2022: $268m; 2021: $262m).

The Group has entered into lease contracts that have not yet commenced. The nominal value of estimated future lease payments under these lease contracts approximates $1,615m as of 31 December 2023. Of this value, $1,348m relates to a property lease in the US which is expected to commence in 2026 with a lease term of 15 years.

In 2022 the Group entered into a sale and leaseback agreement in relation to the Waltham R&D site in MA, US. Prior to the sale, the carrying value of the Property, plant and equipment was $124m. Cash proceeds of $265m were received, recorded within Disposal of property, plant and equipment within the Consolidated Statement of Cash Flows, and a gain on disposal of $125m was recorded within Other operating income and expense within the Consolidated Statement of Comprehensive Income. A lease liability and a corresponding right-of-use asset were recorded of $28m and $13m, respectively.

9 Goodwill

	2023 $m	2022 $m	2021 $m
Cost			
At 1 January	**20,131**	20,311	12,164
Additions through business combinations (Note 27)	**158**	15	8,287
Exchange and other adjustments	**72**	(195)	(140)
At 31 December	**20,361**	20,131	20,311
Amortisation and impairment losses			
At 1 January	**311**	314	319
Exchange and other adjustments	**2**	(3)	(5)
At 31 December	**313**	311	314
Net book value			
At 31 December	**20,048**	19,820	19,997

Goodwill is tested for impairment at the operating segment level, this being the level at which goodwill is monitored for internal management purposes. As detailed in Note 6, the Group does not have multiple operating segments and is engaged in a single business activity of pharmaceuticals.

Recoverable amount is determined on a fair value less costs to sell basis using the market value of the Company's outstanding Ordinary Shares. Our market capitalisation is compared to the book value of the Group's net assets and this indicates a significant surplus at 31 December 2023 (and 31 December 2022 and 31 December 2021). No goodwill impairment was identified.

10 Intangible assets

	Product, marketing and distribution rights $m	Other intangibles $m	Software development costs $m	Total $m
Cost				
At 1 January 2021	42,677	2,642	1,288	46,607
Additions through business combinations (Note 27)	26,455	430	70	26,955
Additions – separately acquired	587	6	119	712
Transferred to Assets held for sale (Note 18)	(1,266)	(47)	–	(1,313)
Disposals	(801)	(402)	(23)	(1,226)
Exchange and other adjustments	(1,062)	(18)	(22)	(1,102)
At 31 December 2021	66,590	2,611	1,432	70,633
Additions through business combinations (Note 27)	–	46	–	46
Additions – separately acquired	2,051	12	105	2,168
Disposals	(57)	(105)	(36)	(198)
Exchange and other adjustments	(1,799)	(122)	(106)	(2,027)
At 31 December 2022	66,785	2,442	1,395	70,622
Additions through business combinations (Note 27)	**65**	**35**	**–**	**100**
Additions – separately acquired	**2,530**	**200**	**170**	**2,900**
Disposals	**(669)**	**–**	**(14)**	**(683)**
Exchange and other adjustments	**496**	**30**	**24**	**550**
At 31 December 2023	**69,207**	**2,707**	**1,575**	**73,489**
Amortisation and impairment losses				
At 1 January 2021	22,564	2,128	968	25,660
Amortisation for year	2,908	172	63	3,143
Impairment charges	2,067	–	18	2,085
Transferred to Assets held for sale (Note 18)	(931)	(14)	–	(945)
Disposals	(797)	(402)	(21)	(1,220)
Exchange and other adjustments	(535)	(21)	(26)	(582)
At 31 December 2021	25,276	1,863	1,002	28,141
Amortisation for year	3,899	181	76	4,156
Impairment charges	236	82	–	318
Impairment reversals	(77)	–	(17)	(94)
Disposals	(55)	(105)	(20)	(180)
Exchange and other adjustments	(887)	(76)	(63)	(1,026)
At 31 December 2022	28,392	1,945	978	31,315
Amortisation for year	**3,771**	**75**	**80**	**3,926**
Impairment charges	**434**	**–**	**–**	**434**
Disposals	**(667)**	**–**	**(12)**	**(679)**
Exchange and other adjustments	**336**	**41**	**27**	**404**
At 31 December 2023	**32,266**	**2,061**	**1,073**	**35,400**
Net book value				
At 31 December 2021	41,314	748	430	42,492
At 31 December 2022	38,393	497	417	39,307
At 31 December 2023	**36,941**	**646**	**502**	**38,089**

	2023 $m	2022 $m	2021 $m
Net book value			
Current intangible assets	**–**	–	105
Non-current intangible assets	**38,089**	39,307	42,387
At 31 December	**38,089**	39,307	42,492

Other intangibles consist mainly of research and device technologies and the Alexion brand name. Included within Software development costs are assets currently in development that will commence amortisation when ready for use.

Included within Additions – separately acquired are amounts of $625m (2022: $1,135m; 2021: $124m), relating to deferred payments and other non-cash consideration for the acquisition of Product, marketing and distribution rights, which are not reflected in the current year Consolidated Statement of Cash Flows. Disposals include amounts related to fully depreciated assets that are no longer in use by the Group.

Amortisation charges are recognised in profit as follows:

	Product, marketing and distribution rights $m	Other intangibles $m	Software development costs $m	Total $m
Year ended 31 December 2021				
Cost of sales	66	–	–	66
Research and development expense	–	33	–	33
Selling, general and administrative expense	2,842	138	63	3,043
Other operating income and expense	–	1	–	1
Total	2,908	172	63	3,143
Year ended 31 December 2022				
Cost of sales	32	–	–	32
Research and development expense	–	30	–	30
Selling, general and administrative expense	3,867	151	76	4,094
Total	3,899	181	76	4,156
Year ended 31 December 2023				
Cost of sales	**32**	**–**	**–**	**32**
Research and development expense	**–**	**28**	**–**	**28**
Selling, general and administrative expense	**3,739**	**47**	**80**	**3,866**
Total	**3,771**	**75**	**80**	**3,926**

Net impairment charges are recognised in profit as follows:

	Product, marketing and distribution rights $m	Other intangibles $m	Software development costs $m	Total $m
Year ended 31 December 2021				
Research and development expense	1,464	–	–	1,464
Selling, general and administrative expense	603	–	18	621
Total	2,067	–	18	2,085
Year ended 31 December 2022				
Research and development expense	95	–	–	95
Selling, general and administrative expense	64	82	(17)	129
Total	159	82	(17)	224
Year ended 31 December 2023				
Research and development expense	**417**	**–**	**–**	**417**
Selling, general and administrative expense	**17**	**–**	**–**	**17**
Total	**434**	**–**	**–**	**434**

Impairment charges and reversals

We perform a rigorous impairment trigger assessment for all our intangible assets. Intangible assets under development and not available for use are tested annually for impairment and other intangible assets are tested when there is an indication of impairment loss or reversal. Where testing is required, the recoverable amount of the assets is estimated in order to determine the extent of the impairment loss or reversal. Where it is not possible to estimate the recoverable amount of an individual asset, the Group estimates the recoverable amount of the Cash Generating Unit (CGU) to which it belongs. The Group considers that as the intangible assets are linked to individual products and that product cash flows are considered to be largely independent of other product cash flows, the CGU for intangibles is at the product level. Group-level budgets and forecasts include forecast capital investment and operational impacts related to sustainability projects, as well as inflationary impacts, and form the basis for the value in use models used for impairment testing.

An asset's recoverable amount is determined as the higher of an asset's or CGU's fair value less costs to sell or value in use, in both cases using discounted cash flow calculations where the asset's expected post-tax cash flows are risk-adjusted over their estimated remaining period of expected economic benefit. Where the value in use approach is used, the post-tax risk-adjusted cash flows are discounted using AstraZeneca's post-tax weighted average cost of capital (7.5% for 2023, 7% for 2022 and 2021) which is a nominal rate. There is no material difference in the approach taken to using pre-tax cash flows and a pre-tax rate compared to post-tax cash flows and a post-tax rate, as required by IAS 36. Where fair value less costs to sell is used to determine recoverable value, the discount rate is assessed with reference to a market participant; this is not usually materially different to the AstraZeneca post-tax weighted average cost of capital of 7.5%. Intangible assets have been tested for impairment under the value in use basis at risk-adjusted post-tax discount rates ranging between 7.5% to 9.5%.

10 Intangible assets *continued*

SE Key assumptions and significant estimates used in calculating the recoverable amounts are highly sensitive and specific to the nature of the Group's activities including:

- outcome of R&D activities
- probability of technical and regulatory success
- market volume, share and pricing (to derive peak year sales)
- amount and timing of projected future cash flows
- sales erosion curves following patent expiry.

Whilst the intangible assets portfolio is generally exposed to significant impairment risk within the next financial year, no sensitivities have been disclosed since no specific asset has been identified as having a significant risk of a material impairment arising from reasonably possible changes in key assumptions.

For assets held at fair value less costs to sell, we make appropriate adjustments to reflect market participant assessments.

In 2023, the Group recorded impairment charges of $17m in respect of launched products. Impairment charges recorded against products in development totalled $417m, including $244m related to ALXN1840 which was fully impaired following the decision to discontinue development.

In 2022, the Group recorded impairment charges of $146m in respect of launched products. Impairment charges recorded against products in development totalled $172m due to decisions made to terminate the related activities.

In 2021, the Group recorded impairment charges of $603m in respect of launched products, including *Bydureon* ($469m, revised carrying amount of $50m) under value in use model, roxadustat ($121m, revised carrying amount of $215m) under value in use model and other launched products totalling $13m.

Impairment charges recorded against products in development in 2021, based on fair value less costs to sell, totalled $1,464m, principally Ardea ($1,172m) which was fully impaired following the decision to discontinue development of verinurad. The remaining impairments relate to full impairments of various products in development, due to either management's decision to discontinue development as part of a Group-wide portfolio prioritisation review, or due to the outcome of research activities.

The Group has performed an assessment on assets which have had impairments recorded in previous periods to determine if any reversals of impairments were required. No impairment reversals were recorded in 2023. Impairment reversals of $94m were recorded in 2022, including $77m in respect of products in development. No impairment reversals were recorded in 2021.

When launched products are partially impaired, the carrying values of these assets in future periods are particularly sensitive to changes in forecast assumptions, including those assumptions set out above, as the asset is impaired down to its recoverable amount.

Significant assets

	Carrying value $m	Remaining amortisation period
C5 franchise (*Soliris*/*Ultomiris*) intangible assets arising from the acquisition of Alexion	14,356	4 to 12 years
Intangible assets arising from the acquisition of Acerta Pharma	4,335	9 years
Strensiq, *Kanuma*, *Andexxa* intangible assets arising from the acquisition of Alexion	4,147	9 to 15 years
Enhertu intangible assets acquired from Daiichi Sankyo	2,831	10 years
Intangible asset products in development arising from the acquisition of Alexion[1]	2,489	Not amortised
Intangible assets arising from the acquisition of ZS Pharma Inc.	1,838	8 years
Other intangible assets acquired from Daiichi Sankyo[1]	989	Not amortised
Baxdrostat intangible asset acquired from CinCor Pharma, Inc.[1]	780	Not amortised
Airsupra intangible asset	524	11 years
Intangible assets arising from the restructuring of a historical joint venture with MSD	472	3 to 6 years
Farxiga/*Forxiga* intangible assets acquired from BMS	426	3 years
Intangible assets arising from the acquisition of Pearl Therapeutics, Inc	412	5 to 6 years
Monalizumab intangible assets acquired from Innate Pharma[1]	370	Not amortised
RSV franchise assets arising from the acquisition of MedImmune	305	2 years
Rare disease portfolio assets acquired from Pfizer[1]	300	Not amortised

[1] Assets in development are not amortised but are tested annually for impairment.

The intangible asset baxdrostat recognised on acquisition of CinCor Pharma, Inc. in 2023 was assessed under the optional concentration test in IFRS 3 and was determined to be an asset acquisition, as substantially all of the value of the gross assets acquired was concentrated in this single asset.

The acquisition of Pfizer's pre-clinical rare disease gene therapy portfolio in 2023 was assessed under IFRS 3 and the transaction was treated as an asset acquisition.

11 Investments in associates and joint ventures

	2023 $m	2022 $m	2021 $m
At 1 January	**76**	69	39
Additions	**80**	26	92
Share of after tax losses	**(12)**	(5)	(64)
Exchange and other adjustments	**3**	(14)	2
At 31 December	**147**	76	69

On 1 November 2023, AstraZeneca entered into an agreement with Cellectis, a clinical-stage biotechnology company, to accelerate the development of next generation therapeutics in areas of high unmet medical need, including oncology, immunology and rare diseases. Under the terms of the agreement, AstraZeneca contributed $80m in funds and holds a 22% interest in the associate entity.

On 29 January 2021, AstraZeneca entered into an agreement with IHP Holdings Limited to create and run an online platform (iHospital) offering consultations with physicians, repeat prescriptions and e-pharmacy in China. The agreement resulted in the formation of a new entity, IHP HK 27 Holdings Limited. AstraZeneca contributed $30m in initial funds and holds a 50% interest in the associate entity.

On 1 December 2020, AstraZeneca and China International Capital Corporation (CICC) entered into an agreement to set up a Global Healthcare Industrial Fund to drive healthcare system innovation by leveraging local capital and accelerating China-related innovation incubation. The agreement resulted in the formation of a new entity, Wuxi AstraZeneca-CICC Venture Capital Partnership (Limited Partnership). AstraZeneca holds a 22% interest in the associate entity and contributed $1m in initial funds in 2020, with contributions of $45m and $21m made in 2021 and 2022 respectively.

On 23 September 2021, AstraZeneca entered into an agreement with VaxEquity Limited to collaborate and develop self-amplifying RNA technology with the aim of generating treatments for target diseases. AstraZeneca contributed $14m in initial funds and holds a 40% interest in the associate entity.

On 23 February 2018, AstraZeneca entered into an agreement with a consortium of investors to form a new, US-domiciled standalone company called Viela Bio. In February 2021, AstraZeneca agreed to divest its 26.7% ownership in Viela Bio, as part of the acquisition of Viela by Horizon Therapeutics plc. AstraZeneca received cash proceeds and profit of $776m upon closing with the profit recorded as Other operating income. In 2021, prior to divestment, the Group provided transitional research and development services to Viela Bio, comprising $1m of passed-through third-party costs incurred by the Group on behalf of Viela Bio.

On 27 November 2017, AstraZeneca entered into a joint venture agreement with Chinese Future Industry Investment Fund (FIIF), to discover, develop and commercialise potential new medicines to help address unmet medical needs globally, and to bring innovative new medicines to patients in China more quickly. The agreement resulted in the formation of a joint venture entity based in China, Dizal (Jiangsu) Pharmaceutical Co., Limited (Dizal). Since its establishment, AstraZeneca has contributed $80m in cash to the joint venture entity and has a 27% interest in the joint venture.

On 1 December 2015, AstraZeneca entered into a joint venture agreement with Fujifilm Kyowa Kirin Biologics Co., Ltd. to develop a biosimilar using the combined capabilities of the two parties. The agreement resulted in the formation of a joint venture entity based in the UK, Centus Biotherapeutics Limited (Centus). Since its establishment, AstraZeneca has contributed $135m in cash to the joint venture entity and has a 50% interest in the joint venture. On 26 April 2023, Centus entered a voluntary liquidation process.

All investments are accounted for using the equity method. At 31 December 2023, unrecognised losses in associates and joint ventures totalled $140m (2022: $92m; 2021: $73m) which have not been recognised due to the investment carrying value reaching $nil value.

Aggregated summarised financial information for the associate and joint venture entities is set out below:

	2023 $m	2022 $m	2021 $m
Non-current assets	**424**	290	215
Current assets	**362**	300	506
Total liabilities	**(287)**	(72)	(99)
Net assets	**499**	518	622
Amount attributable to AstraZeneca	**85**	91	65
Goodwill	**52**	–	–
Exchange adjustments	**10**	(15)	4
Carrying value of investments in associates and joint ventures	**147**	76	69

Joint contractual arrangements were entered into between AstraZeneca and Daiichi Sankyo Company Limited (Daiichi Sankyo); in March 2019 for the co-development and co-commercialisation of *Enhertu* and in July 2020 for the co-development and co-commercialisation of Dato-DXd. Each party shares global pre-tax net income from the collaboration on a 50:50 basis (with the exception of Japan where Daiichi Sankyo maintains exclusive rights and AstraZeneca receives a royalty). The joint operation is not structured through a separate legal entity, and it operates from AstraZeneca and Daiichi Sankyo's respective principal places of business.

12 Other investments

	2023 $m	2022 $m	2021 $m
Non-current investments			
Equity securities at fair value through Other comprehensive income	**1,530**	1,056	1,168
Fixed income securities at fair value through profit or loss	**–**	10	–
Total	**1,530**	1,066	1,168
Current investments			
Fixed income securities at fair value through profit or loss	**20**	13	16
Cash collateral pledged to counterparties	**102**	162	–
Fixed deposits	**–**	64	53
Total	**122**	239	69

Other investments held at FVOCI include equity securities which are not held for trading and which the Group has irrevocably elected at initial recognition to recognise in this category. Other investments held at FVPL mainly comprise fixed income securities that the Group holds to sell.

The fair value of listed investments is based on year end quoted market prices. Fixed deposits and Cash collateral pledged to counterparties are held at amortised cost with carrying value being a reasonable approximation of fair value given their short-term nature.

Cash collateral pledged to counterparties relates to collateral pledged on derivatives entered into to hedge the Group's risk exposures. In 2022, following significant foreign currency volatility increasing the collateral requirements, the Group revised its presentation to 'Other investments'. In 2021 amounts of $47m are presented within Cash and cash equivalents.

Fair value hierarchy

The table below analyses equity securities and bonds, contained within Other investments and carried at fair value, by valuation method. The different levels have been defined as follows:

> Level 1: quoted prices (unadjusted) in active markets for identical assets or liabilities
> Level 2: inputs other than quoted prices included within Level 1 that are observable for the asset or liability, either directly (i.e. as prices) or indirectly (i.e. derived from prices)
> Level 3: inputs for the asset or liability that are not based on observable market data (unobservable inputs).

	2023 FVPL $m	2023 FVOCI $m	2022 FVPL $m	2022 FVOCI $m	2021 FVPL $m	2021 FVOCI $m
Level 1	**20**	**1,217**	13	880	16	1,064
Level 2	**–**	**–**	–	–	–	–
Level 3	**–**	**313**	10	176	–	104
Total	**20**	**1,530**	23	1,056	16	1,168

Assets are transferred in or out of each Level on the date of the event or change in circumstances that caused the transfer.

Equity securities that are analysed at Level 3 include investments in private biotech companies. In the absence of specific market data, these unlisted investments are held at fair value based on the cost of investment and adjusting as necessary for impairments and revaluations on new funding rounds, which approximates to fair value. Movements in Level 3 investments are detailed below:

	2023 FVPL $m	2023 FVOCI $m	2022 FVPL $m	2022 FVOCI $m	2021 FVOCI $m
At 1 January	**10**	**176**	–	104	217
Additions	**–**	**127**	10	32	1
Revaluations	**3**	**14**	–	50	–
Net transfers out from Level 3 to Level 1	**–**	**–**	–	(4)	(113)
Disposals	**(13)**	**(8)**	–	(5)	–
Impairments and exchange adjustments	**–**	**4**	–	(1)	(1)
At 31 December	**–**	**313**	10	176	104

13 Derivative financial instruments

	Non-current assets $m	Current assets $m	Current liabilities $m	Non-current liabilities $m	Total $m
Interest rate swaps related to instruments designated at fair value through profit or loss[1]	25	–	–	–	25
Cross currency swaps designated in a net investment hedge	62	–	–	(2)	60
Cross currency swaps designated in a cash flow hedge	–	–	–	(43)	(43)
Forward FX designated in a cash flow hedge[2]	–	13	–	–	13
Other derivatives	15	70	(79)	–	6
31 December 2021	102	83	(79)	(45)	61

	Non-current assets $m	Current assets $m	Current liabilities $m	Non-current liabilities $m	Total $m
Interest rate swaps related to instruments designated at fair value through profit or loss[1]	–	1	–	–	1
Cross currency swaps designated in a net investment hedge	55	–	–	(4)	51
Cross currency swaps designated in a cash flow hedge	–	–	–	(160)	(160)
Forward FX designated in a cash flow hedge[2]	–	1	(13)	–	(12)
Other derivatives	19	85	(80)	–	24
31 December 2022	74	87	(93)	(164)	(96)

	Non-current assets $m	**Current assets $m**	**Current liabilities $m**	**Non-current liabilities $m**	**Total $m**
Cross currency swaps designated in a net investment hedge	**100**	**–**	**–**	**(1)**	**99**
Cross currency swaps designated in a cash flow hedge	**116**	**–**	**(30)**	**(37)**	**49**
Forward FX designated in a cash flow hedge[2]	**–**	**19**	**(4)**	**–**	**15**
Other derivatives	**12**	**97**	**(122)**	**–**	**(13)**
31 December 2023	**228**	**116**	**(156)**	**(38)**	**150**

[1] Interest rate swaps related to instruments designated at fair value through profit or loss matured in 2023.
[2] Forward FX designated in a cash flow hedge relates to contracts hedging anticipated CNY, EUR, GBP, JPY and SEK transactions occurring in the quarter immediately after the balance sheet date.

All derivatives are held at fair value and fall within Level 2 of the fair value hierarchy as defined in Note 12, except for an equity warrant which falls within Level 3 (valued at $12m (2022: $19m; 2021: $15m), held within Non-current assets). None of the derivatives have been reclassified in the year.

The fair value of interest rate swaps and cross currency swaps is estimated using appropriate zero coupon curve valuation techniques to discount future contractual cash flows based on rates at the current year end.

The fair value of forward foreign exchange contracts and currency options are estimated by cash flow accounting models using appropriate yield curves based on market forward foreign exchange rates at the year end. The majority of forward foreign exchange contracts for existing transactions had maturities of less than one month from year end.

The interest rates used to discount future cash flows for fair value adjustments, where applicable, are based on market swap curves at the reporting date, and were as follows:

	2023	2022	2021
Derivatives	**0.1% to 5.3%**	0.1% to 4.7%	(0.5)% to 3.6%

14 Non-current other receivables

	2023 $m	2022 $m	2021 $m
Prepayments	**274**	243	391
Accrued income	**52**	44	61
Retirement benefit scheme surpluses (Note 22)	**92**	90	–
Other receivables	**385**	458	443
Non-current other receivables	**803**	835	895

Prepayments include $nil (2022: $nil; 2021: $92m) in relation to our research collaboration with Moderna. Other receivables include $51m (2022: $71m; 2021: $44m) owed by FibroGen, Inc. for promotional activity in China pursuant to the roxadustat collaboration.

15 Inventories

	2023 $m	2022 $m	2021 $m
Raw materials and consumables	**1,531**	1,422	1,755
Inventories in process	**2,325**	1,864	5,216
Finished goods and goods for resale	**1,568**	1,413	2,012
Inventories	**5,424**	4,699	8,983

The Group recognised $6,038m (2022: $9,618m; 2021: $9,640m) of inventories as an expense within Cost of sales during the year.

Inventory write-downs in the year amounted to $574m (2022: $479m; 2021: $552m), principally arising from the reassessment of usage or demand expectations prior to inventory expiration.

16 Current trade and other receivables

	2023 $m	2022 $m	2021 $m
Trade receivables	**8,452**	7,271	6,054
Less: Expected credit loss provision (Note 28)	**(45)**	(59)	(23)
	8,407	7,212	6,031
Other receivables	**1,639**	1,659	1,808
Prepayments	**1,617**	1,329	1,512
Government grants receivable	**11**	25	–
Accrued income	**452**	296	293
Trade and other receivables	**12,126**	10,521	9,644

Trade receivables include $1,977m (2022: $2,470m; 2021: $1,865m) measured at FVOCI classified 'hold to collect and sell' as they are due from customers that the Group has the option to factor, or relate to bank acceptance drafts received in settlement of trade receivables per common practice in China.

All other financial assets included within Current trade and other receivables are held at amortised cost with carrying value being a reasonable approximation of fair value.

17 Cash and cash equivalents

	2023 $m	2022 $m	2021 $m
Cash at bank and in hand	**1,325**	1,411	1,461
Short-term deposits	**4,515**	4,755	4,868
Cash and cash equivalents	**5,840**	6,166	6,329
Unsecured bank overdrafts	**(203)**	(183)	(291)
Cash and cash equivalents in the cash flow statement	**5,637**	5,983	6,038

AstraZeneca invests in constant net asset value funds, low-volatility net asset value funds and short-term variable net asset value funds with same day access for subscription and redemption. These investments fail the 'solely payments of principal and interest' test criteria under IFRS 9. They are therefore measured at FVPL, although the fair value is materially the same as amortised cost.

Non-cash and other movements, within operating activities in the Consolidated Statement of Cash Flows, includes:

	2023 $m	2022 $m	2021 $m
Share-based payments charge for the period	**579**	619	615
Settlement of share plan awards	**(650)**	(592)	(570)
Pension contributions	**(188)**	(205)	(174)
Pension charges recorded in operating profit	**55**	101	136
Long-term provision charges recorded in operating profit	**460**	87	270
(Gain)/loss on disposal of tangible assets	**(41)**	(112)	4
Update to the contractual relationships for *Beyfortus* (nirsevimab)	**(729)**	–	–
Foreign exchange and other[1]	**128**	(590)	(186)
Total operating activities non-cash and other movements	**(386)**	(692)	95

[1] Foreign exchange and other includes, among other items, the foreign exchange of inter-company transactions, including dividends, across Group entities and the related impact from hedging those transactions.

18 Assets held for sale

Assets held for sale amount to $nil (2022: $150m; 2021: $368m).

In 2022, Assets held for sale comprised Property, plant and equipment assets relating to the West Chester site in Ohio, US. The transaction closed on 30 January 2023.

In 2021, Assets held for sale comprised Intangible assets relating to the rights to certain respiratory assets acquired from Almirall and Actavis plc. (including *Tudorza* and *Duaklir*). The transaction closed on 4 January 2022.

19 Interest-bearing loans and borrowings

		Repayment dates	2023 $m	2022 $m	2021 $m
Current liabilities					
Bank overdrafts		On demand	**203**	183	291
Other short-term borrowings excluding overdrafts			**97**	78	3
Collateral received from derivative counterparties			**215**	89	93
Lease liabilities			**271**	228	233
Floating rate notes	US dollars	2022	**–**	–	250
2.375% Callable bond	US dollars	2022	**–**	–	999
0.3% Callable bond	US dollars	2023	**–**	1,399	–
2023 Floating bank loan	US dollars	2023	**–**	2,000	–
Floating rate notes	US dollars	2023	**–**	400	–
3.5% Callable bond	US dollars	2023	**–**	849	–
7% Guaranteed debentures	US dollars	2023	**–**	294	–
0.75% Callable bond	euros	2024	**995**	–	–
0.7% Callable bond	US dollars	2024	**1,600**	–	–
2024 Floating rate bank loans	US dollars	2024	**2,000**	–	–
Other loans (including commercial paper)		Within one year	**19**	22	24
Total			**5,400**	5,542	1,893
Non-current liabilities					
Lease liabilities			**857**	725	754
0.3% Callable bond	US dollars	2023	**–**	–	1,397
2023 Floating bank loan	US dollars	2023	**–**	–	1,998
Floating rate notes	US dollars	2023	**–**	–	400
3.5% Callable bond	US dollars	2023	**–**	–	848
7% Guaranteed debentures	US dollars	2023	**–**	–	320
0.75% Callable bond	euros	2024	**–**	957	1,014
0.7% Callable bond	US dollars	2024	**–**	1,598	1,598
2024 Floating bank loans	US dollars	2024	**–**	1,998	1,997
3.375% Callable bond	US dollars	2025	**1,994**	1,992	1,988
0.7% Callable bond	US dollars	2026	**1,196**	1,195	1,193
1.2% Callable bond	US dollars	2026	**1,248**	1,246	1,245
3.625% Callable bond	euros	2027	**829**	–	–
3.125% Callable bond	US dollars	2027	**747**	746	745
4.875% Callable bond	US dollars	2028	**1,095**	–	–
1.25% Callable bond	euros	2028	**879**	845	896
1.75% Callable bond	US dollars	2028	**1,246**	1,245	1,244
4% Callable bond	US dollars	2029	**995**	995	994
0.375% Callable bond	euros	2029	**881**	846	898
4.9% Callable bond	US dollars	2030	**645**	–	–
1.375% Callable bond	US dollars	2030	**1,294**	1,293	1,292
2.25% Callable bond	US dollars	2031	**747**	747	746
5.75% Non-callable bond	pound sterling	2031	**444**	420	470
3.75% Callable bond	euros	2032	**827**	–	–
4.875% Callable bond	US dollars	2033	**497**	–	–
6.45% Callable bond	US dollars	2037	**2,725**	2,724	2,724
4% Callable bond	US dollars	2042	**989**	988	988
4.375% Callable bond	US dollars	2045	**981**	981	980
4.375% Callable bond	US dollars	2048	**738**	737	737
2.125% Callable bond	US dollars	2050	**487**	487	486
3% Callable bond	US dollars	2051	**735**	735	734
Other loans	US dollars		**146**	190	202
Total			**23,222**	23,690	28,888
Total interest-bearing loans and borrowings[1, 2]			**28,622**	29,232	30,781

[1] All loans and borrowings above are unsecured. In previous years, there were current (2022: $22m; 2021: $24m) and non-current (2022: $181m; 2021: $188m) secured loans, both included within Other loans.

[2] The $2bn USD 2024 floating rate bank loans pay interest rate based on compounded daily USD Secured Overnight Funding Rate (SOFR).

19 Interest-bearing loans and borrowings *continued*

	Total loans and borrowings 2023 $m	Total loans and borrowings 2022 $m	Total loans and borrowings 2021 $m
At 1 January	**29,232**	30,781	20,380
Changes from financing cash flows			
Issue of loans and borrowings	**3,816**	–	12,929
Repayment of loans and borrowings	**(4,942)**	(1,271)	(4,759)
Movement in short-term borrowings	**161**	74	(276)
Repayment of obligations under leases	**(268)**	(244)	(240)
Total changes in cash flows arising on financing activities from borrowings	**(1,233)**	(1,441)	7,654
Movement in overdrafts	**20**	(85)	31
New lease liabilities	**444**	253	503
Additions through business combinations	**–**	5	2,523
Exchange	**187**	(287)	(378)
Other movements	**(28)**	6	68
At 31 December	**28,622**	29,232	30,781

Also included within cash flows arising from financing activities within the Consolidated Statement of Cash Flows is a $867m cash outflow (2022: outflow of $920m; 2021: $nil) related to the Acerta Pharma share purchase liability which has a closing liability at 31 December 2023 of $833m (2022: $1,646m; 2021: $2,458m) within Trade and other payables (see Note 20).

Set out below is a comparison by category of carrying values and fair values of all the Group's interest-bearing loans and borrowings:

	Instruments designated at fair value[1] $m	Instruments designated in cash flow hedge[2] $m	Amortised cost $m	Total carrying value $m	Fair value $m
2021					
Overdrafts	–	–	291	291	291
Lease liabilities due within one year	–	–	233	233	233
Lease liabilities due after more than one year	–	–	754	754	754
Loans and borrowings due within one year	–	–	1,369	1,369	1,378
Loans and borrowings due after more than one year	320	1,910	25,904	28,134	30,596
Total at 31 December 2021	320	1,910	28,551	30,781	33,252
2022					
Overdrafts	–	–	183	183	183
Lease liabilities due within one year	–	–	228	228	228
Lease liabilities due after more than one year	–	–	725	725	725
Loans and borrowings due within one year	294	–	4,837	5,131	5,105
Loans and borrowings due after more than one year	–	1,802	21,163	22,965	21,657
Total at 31 December 2022	294	1,802	27,136	29,232	27,898
2023					
Overdrafts	**–**	**–**	**203**	**203**	**203**
Lease liabilities due within one year	**–**	**–**	**271**	**271**	**271**
Lease liabilities due after more than one year	**–**	**–**	**857**	**857**	**857**
Loans and borrowings due within one year	**–**	**995**	**3,931**	**4,926**	**4,887**
Loans and borrowings due after more than one year	**–**	**2,535**	**19,830**	**22,365**	**21,769**
Total at 31 December 2023	**–**	**3,530**	**25,092**	**28,622**	**27,987**

[1] Instruments designated at FVPL include the US dollar 7% guaranteed debentures which matured on 15 November 2023.

[2] Instruments designated in cash flow hedges are our euro 500m 0.25% Callable bond which matured in 2021, our euro 900m 0.75% 2024 Callable bond, our euro 750m 3.625% 2027 Callable bond, our euro 800m 1.25% 2028 Callable bond, and our euro 750m 3.75% 2032 Callable bond.

The fair value of fixed-rate publicly traded debt is based on year end quoted market prices; the fair value of floating rate debt is nominal value, as mark-to-market differences would be minimal given the frequency of resets. The carrying value of loans designated at FVPL is the fair value; this falls within the Level 1 valuation method as defined in Note 12. For loans designated in a fair value hedge relationship, carrying value is initially measured at fair value and remeasured for fair value changes in respect of the hedged risk at each reporting date. All other loans are held at amortised cost. Fair values, as disclosed in the table above, are all determined using the Level 1 valuation method as defined in Note 12, with the exception of overdrafts and lease liabilities, where fair value approximates to carrying values.

A loss of $6m was made during the year on the fair value of bonds designated as FVPL. A gain of $25m has been made on these bonds since designation. Under IFRS 9, the Group records the component of fair value changes relating to the component of own credit risk through Other comprehensive income. Changes in credit risk had no material effect on any other financial assets and liabilities recognised at fair value in the Group Financial Statements. The change in fair value attributable to changes in credit risk is calculated as the change in fair value not attributable to market risk.

The interest rates used to discount future cash flows for fair value adjustments, where applicable, are based on market swap curves at the reporting date, and were as follows:

	2023	2022	2021
Loans and borrowings	**n/a to n/a**[1]	4.3% to 4.9%	0.1% to 0.6%

[1] All bonds designated as FVPL have matured prior to the reporting date.

20 Trade and other payables

	2023 $m	2022 $m	2021 $m
Current liabilities			
Trade payables	**3,267**	2,550	2,824
Value-added and payroll taxes and social security	**492**	468	463
Rebates, chargebacks, returns and other revenue accruals	**7,817**	6,078	5,298
Clinical trial accruals	**1,424**	1,417	1,047
Other accruals	**6,112**	5,551	5,649
Collaboration Revenue contract liabilities	**7**	12	12
Vaccine contract liabilities	**142**	169	1,003
Deferred government grant income	**–**	1	67
Contingent consideration	**966**	757	849
Acerta Pharma share purchase liability (Note 26)	**833**	867	920
Other payables	**1,314**	1,170	806
Total	**22,374**	19,040	18,938
Non-current liabilities			
Accruals	**36**	37	25
Collaboration Revenue contract liabilities	**7**	14	26
Contingent consideration	**1,171**	1,465	2,016
Acerta Pharma share purchase liability (Note 26)	**–**	779	1,538
Other payables	**1,446**	1,975	1,328
Total	**2,660**	4,270	4,933

Included within Rebates, chargebacks, returns and other revenue accruals are contract liabilities of $102m (2022: $87m; 2021: $99m). The revenue recognised in the year from opening contract liabilities is $88m, comprising $76m relating to other revenue accruals and $12m Collaboration Revenue contract liabilities. The major markets with Rebates, chargebacks, returns and other revenue accruals are the US where the liability at 31 December 2023 amounted to $5,116m (2022: $3,961m; 2021: $3,172m), of which Rare Disease comprises $190m (2022: $139m; 2021: $127m), and China where the liability at 31 December 2023 amounted to $567m (2022: $579m; 2021: $814m).

Trade payables includes $123m (2022: $67m; 2021: $44m) due to suppliers that have signed up to a supply chain financing programme, under which the suppliers can elect on an invoice-by-invoice basis to receive a discounted early payment from the relationship bank rather than being paid in line with the agreed payment terms. If the option is taken, the Group's liability is assigned by the supplier to be due to the relationship bank rather than the supplier. The value of the liability payable by the Group remains unchanged. The Group assesses the arrangement against indicators to assess if debts which vendors have sold to the funder under the supplier financing scheme continue to meet the definition of trade payables or should be classified as borrowings. At 31 December 2023, the payables met the criteria of Trade payables. The supply chain financing programme operates in the US, UK, Sweden, China and Germany, and as at 31 December 2023, the programme had 461 suppliers enrolled across these countries.

Vaccine contract liabilities relate to amounts received from customers, primarily government bodies, in advance of supply of product.

Deferred government grant income relates to government grants received or receivable but for which the related expenses have not been incurred.

Included within current Other payables are liabilities to Daiichi Sankyo totalling $199m (2022: $100m; 2021: $nil) resulting from the collaboration agreement in relation to *Enhertu* entered into in March 2019 and $nil (2022: $nil; 2021: $324m) in relation to Dato-DXd entered into in July 2020. Additionally, included within non-current Other payables are liabilities totalling $774m (2022: $1,125m; 2021: $100m) as a result of the *Enhertu* collaboration agreement and $464m (2022: $nil; 2021: $nil) as a result of the *Airsupra* collaboration agreement.

In November 2020, *Calquence* received marketing approval in the EU, which removed all remaining conditionality in respect of the Acerta Pharma put and call options regarding the non-controlling interest; the option was exercised in April 2021 (see Note 26). The payments will be made in similar annual instalments in 2022 through to 2024, with the first payment of $920m made in 2022 and the second payment of $867m made in 2023, with a closing liability as at 31 December 2023 of $833m (2022: $1,646m; 2021: $2,458m). Interest arising from amortising the liability is included within Finance expense (see Note 3). The associated cash flows are disclosed as financing activities within the Consolidated Statement of Cash Flows.

With the exception of Contingent consideration payables of $2,137m (2022: $2,222m; 2021: $2,865m) which are held at fair value within Level 3 of the fair value hierarchy as defined in Note 12, all other financial liabilities are held at amortised cost with carrying value being a reasonable approximation of fair value.

20 Trade and other payables *continued*

Contingent consideration

	2023 $m	2022 $m	2021 $m
At 1 January	**2,222**	2,865	3,323
Additions through business combinations	**60**	–	–
Settlements	**(826)**	(772)	(643)
Disposals	**–**	(121)	–
Revaluations	**549**	82	14
Reclassification to Other payables	**–**	–	(55)
Discount unwind (Note 3)	**132**	168	226
At 31 December	**2,137**	2,222	2,865

Contingent consideration arising from business combinations is fair valued using decision-tree analysis, with key inputs including the probability of success, consideration of potential delays and the expected levels of future revenues.

Revaluations of Contingent consideration are recognised in Selling, general and administrative expense and include an increase of $520m in 2023 (2022: an increase of $182m; 2021: an increase of $42m) based on revised milestone probabilities, and revenue and royalty forecasts, relating to the acquisition of BMS's share of the Global Diabetes Alliance. Discount unwind on the liability is included within Finance expense (see Note 3).

The discount rate used for the Contingent consideration balances range from 5% to 8%. The most significant Contingent consideration balance is the Global Diabetes Alliance which is discounted at 8% and is reviewed against comparable benchmarks on a regular basis.

Management has identified that reasonably possible changes in certain key assumptions, including the likelihood of achieving successful trial results, obtaining regulatory approval, the projected market share of the therapy area and expected pricing for launched products, may cause the calculated fair value of the above contingent consideration to vary materially in future years.

The contingent consideration balance relating to BMS's share of Global Diabetes Alliance of $1,945m (2022: $2,124m; 2021: $2,544m) would increase/decrease by $195m with an increase/decrease in sales of 10% as compared with the current estimates.

The maximum development and sales milestones payable under outstanding Contingent consideration arrangements arising on business combinations are as follows:

Acquisitions	Year	Nature of contingent consideration	Maximum future milestones $m
Spirogen	2013	Milestones	180
Amplimmune, Inc.	2013	Milestones	150
Almirall[1]	2014	Milestones and royalties	345
Neogene	2023	Milestones	110

[1] These contingent consideration liabilities have been designated as the hedge instrument in a net investment hedge of foreign currency risk arising on the Group's underlying US dollar net investments held in non-US dollar denominated subsidiaries. Exchange differences on the retranslation of the contingent consideration liability are recognised in Other comprehensive income to the extent that the hedge is effective. Any ineffectiveness is taken to profit.

The amount of royalties payable under the arrangements is inherently uncertain and difficult to predict, given the direct link to future sales and the range of outcomes. The maximum amount of royalties payable in each year is with reference to net sales.

21 Provisions

	Severance $m	Environmental $m	Employee benefits $m	Legal $m	Other provisions $m	Total $m
At 1 January 2021	214	100	128	348	770	1,560
Additions through business combinations (Note 27)	–	–	41	73	27	141
Charge for year	238	23	46	109	456	872
Cash paid	(172)	(32)	(49)	(285)	(84)	(622)
Reversals	(62)	–	–	(5)	(175)	(242)
Exchange and other movements	(6)	(1)	29	(1)	(6)	15
At 31 December 2021	212	90	195	239	988	1,724
Charge for year	227	61	1	830	365	1,484
Cash paid	(223)	(19)	(41)	(814)	(185)	(1,282)
Reversals	(43)	–	(27)	(94)	(98)	(262)
Exchange and other movements	(8)	(1)	15	–	(52)	(46)
At 31 December 2022	165	131	143	161	1,018	1,618
Charge for year	**123**	**21**	**22**	**1,102**	**245**	**1,513**
Cash paid	**(87)**	**(41)**	**(14)**	**(219)**	**(404)**	**(765)**
Reversals	**(28)**	**(3)**	**(3)**	**(23)**	**(143)**	**(200)**
Exchange and other movements	**3**	**4**	**20**	**(5)**	**(33)**	**(11)**
At 31 December 2023	**176**	**112**	**168**	**1,016**	**683**	**2,155**

	2023 $m	2022 $m	2021 $m
Due within one year	**1,028**	722	768
Due after more than one year	**1,127**	896	956
Total	**2,155**	1,618	1,724

Provisions are often subject to substantial uncertainties with regard to the timing and final amounts of any payments. Once established, these amounts remain in Provisions even after settlement is reached and uncertainty resolved, with no transfer to Trade and other payables prior to payment. This is to provide more transparent disclosure of subsequent movements in brought forward and carried forward balances. Settled legal claims included within provisions are held at amortised cost with carrying value being a reasonable approximation of fair value.

Severance provisions arise predominantly in connection with global restructuring initiatives, including the PAAGR, which involve rationalisation of the global supply chain, the sales and marketing organisation, IT and business support infrastructure, and R&D.

In conjunction with the acquisition of Alexion in 2021, the enlarged Group initiated the PAAGR; a global restructuring programme, aimed at integrating systems, structure and processes, optimising the global footprint and prioritising resource allocations and investments. This includes the commencement of work on the planned upgrade of the Group's Enterprise Resource Planning IT systems (Axial Project). The Group has also continued to progress other legacy restructuring programmes.

Employee costs in connection with the initiatives are recognised in severance provisions when a detailed formal plan has been communicated to those employees affected. Final severance costs are often subject to the completion of the requisite consultations on the areas impacted, with the majority of the cost expected to be paid within one year. AstraZeneca endeavours to support employees affected by restructuring initiatives to seek alternative roles within the organisation. Where the employee is successful, any severance provisions will be released.

Details of the Environmental provisions totalling $112m (2022: $131m; 2021: $90m) and ongoing matters are provided in Note 30. These uncertainties can also cause reversal in previously established provisions once final settlement is reached.

Legal issues are often subject to substantial uncertainties with regard to the timing and final amounts of any payments. A significant proportion of the total legal provision, $616m (2022: $30m; 2021: $15m) due within one year and $372m (2022: $92m; 2021: $105m) due after more than one year[1], relates to matters settled, but not paid, in previous periods, further details are provided in Note 30.

The majority of Employee benefit provisions relate to Executive Deferred Compensation Plans, which include uncertainty over the ultimate timing and amount of payment to be made to the executives.

Other provisions comprise amounts relating to specific contractual or constructive obligations and disputes. Included within Other provisions are amounts associated with long-standing product liability settlements that arose prior to the merger of Astra and Zeneca, which given the nature of the provision, the amounts are expected to be settled over many years; the final settlement values and timings are uncertain. Also included in Other provisions is an amount of $163m (2022: $165m; 2021: $185m), in relation to third-party liability and other risks (including incurred but not yet reported claims); the claims are considered to be uncertain as to timing and amount. Charges to Other provisions in 2023 included $87m (2022: $12m; 2021: $243m) in relation to the PAAGR restructuring programme, which has a closing provision of $49m (2022: $143m; 2021: $243m), including $8m (2022: $95m; 2021: $158m) held in non-current provisions expected to be settled over time by 2025. In 2022, charges to Other provisions included $301m in relation to termination fees and onerous contracts with contract manufacturing organisations, the vast majority of which was settled in 2023.

No provision has been released or applied for any purpose other than that for which it was established.

22 Post-retirement pension and other defined benefit schemes

Background

This section predominantly covers defined benefit arrangements like post-retirement pension and medical plans which make up the vast bulk of the Group's liabilities. However, it also incorporates other benefits which fall under IAS 19 rules and which require an actuarial valuation, including but not limited to: lump sum plans, long service awards and defined contribution pension plans which have some defined benefit characteristics (e.g. a minimum guaranteed level of benefit). In total, over 50 plans in 28 countries are covered.

The Group and most of its subsidiaries offer retirement plans which cover the majority of employees. The Group's policy is to provide defined contribution (DC) orientated pension provision to its employees unless otherwise compelled by local regulation. As a result, many of these retirement plans are DC, where the Group contribution and resulting charge is fixed at a set level or is a set percentage of employees' pay. However, several plans, mainly in the UK and Sweden, are defined benefit (DB), where benefits are based on employees' length of service and salary. The major DB plans are largely legacy arrangements as they have been closed to new entrants since 2000, apart from the collectively bargained Swedish plan (which is still open to employees born before 1979). During 2010, following consultation with its UK employees' representatives, the Group introduced a freeze on pensionable pay at 30 June 2010 levels for DB members of the UK Pension Fund. The number of active members in the Fund continues to decline and is now 400 employees.

The major DB plans are funded through separate, fiduciary-administered assets. The cash funding of the plans, which may from time to time involve payments from the Group, is designed, in consultation with independent qualified actuaries, to ensure that the assets are sufficient to meet future obligations as and when they fall due. The funding level is monitored by the Group and local fiduciaries, who take into account the strength of the Group's covenant, local regulation, cash flows, and the solvency and maturity of the pension plan.

[1] The profile of future payments of legal provisions due after one year is as follows; in one to two years $180m (2022: $22m; 2021: $14m), in two to three years $159m (2022: $21m; 2021: $17m), in three to four years $10m (2022: $9m; 2021: $22m), in four to five years $9m (2022: $9m; 2021: $9m), and in more than five years $14m (2022: $31m; 2021: $43m).

22 Post-retirement and other defined benefit schemes *continued*

Financing Principles and Funding Framework

Eighty six per cent of the Group's total DB obligations (or 66% of net obligations) at 31 December 2023 are in schemes within the UK and Sweden. In these countries, the pension obligations are funded in line with the Group's financing principles, as disclosed in prior years.

The Group has developed a long-term funding framework to implement these principles. This framework targets either full funding on a low-risk funding measure, or buyout with an external insurer as the pension funds mature, with affordable long-term de-risking of investment strategy along the way. Unless local regulation dictates otherwise, this framework determines the cash contributions payable.

UK

The UK Pension Fund represents approximately 65% of the Group's DB obligations at 31 December 2023. The financing principles are modified in light of the UK regulatory requirements (summarised below) and resulting discussions with the Trustee.

Role of Trustee and Regulation

The UK Pension Fund is governed and administered by a corporate Trustee which is legally separate from the Group. The Trustee Directors are comprised of representatives appointed by both the employer and employees and include an independent professional Trustee Director. The Trustee Directors are required by law to act in the interest of all relevant beneficiaries and are responsible in particular for investment strategy and the day-to-day administration of the benefits. They are also responsible for jointly agreeing with the employer the level of contributions due to the UK Pension Fund.

The UK pensions industry is regulated by The Pensions Regulator whose statutory objectives and regulatory powers are described on its website, www.thepensionsregulator.gov.uk.

The Pension Scheme Act 2021 became effective in the UK from 1 October 2021. A section of this Act places additional legal requirements on companies who sponsor UK defined benefit pension schemes, to monitor and assess corporate activity, with a focus on the potential impact of such activity on the ongoing security of these benefits. The Group maintains a framework to ensure it meets its responsibilities under the Act.

There have been two UK High Court Rulings relating to Guaranteed Minimum Pensions (GMP) equalisation in 2018 and 2020. Following the publication of guidance around implementation in 2021, the Trustee, with input from the Group, has now completed the equalisation of benefits for the vast majority of pensioner members, with the project expected to complete in 2024. Further details are set out later in this Note. An estimate of the impact of these changes has already been recognised in 2018 and 2020, and actual experience is in line with the estimates previously recognised.

In June 2023, the UK High Court (Virgin Media Limited v NTL Pension Trustees II Limited) ruled that certain historical amendments for contracted-out defined benefit schemes were invalid if they were not accompanied by the correct actuarial confirmation. The judgment is subject to appeal. The Trustee and Group are monitoring developments and will consider if there are any implications for the UK Pension Fund, if the ruling is upheld.

Funding requirements

UK legislation requires that an actuarial valuation is completed for all DB pension schemes every three years, which compares the schemes' liabilities to its assets. As part of the triennial valuation process, the Trustee and the Group must agree on a set of assumptions to value the liabilities and determine the contributions required, if any, to ensure the UK Pension Fund is fully funded over an appropriate time period and on a suitably prudent measure. The assumptions used to value the liabilities for the triennial actuarial valuation are required to be prudent, whereas the assumptions used to prepare an IAS 19 accounting valuation are required to be 'best estimate'.

The last full actuarial valuation of the UK Pension Fund was carried out by a qualified actuary as at 31 March 2022 and finalised in May 2023, ahead of the statutory deadline.

Under the funding assumptions used to set the statutory funding target, the key assumptions from the actuarial valuation as at 31 March 2022 (shown as a single-equivalent rate) were as follows: salary increases at 0% per annum (as a result of pensionable pay levels being frozen in 2010); pension increases at 3.64% per annum; and discount rate at 3.03% per annum. The resulting valuation of the Fund's liabilities on that basis was £5,951m ($7,820m) compared to a market valuation of assets at 31 March 2022 of £5,604m ($7,364m).

Aspects of the triennial actuarial valuation are governed by a long-term funding agreement, effective since October 2016, which sets out a path to full funding on a low-risk measure. Under this agreement, if a deficit exists, the Group is required to provide security. This security takes the form of a charge in favour of the Trustee over all land and buildings on the Group's Cambridge Biomedical Campus site. This charge was enacted in December 2023, and provides long-term security to the Trustee in respect of the Group's future deficit recovery contributions. The value of the charge is currently £317m ($404m) and it is capped at £350m ($446m). The value of the charge will vary and is expected to reduce over time, before falling away. Under the terms of the charge, the Trustee can only exercise its right over the ownership of the site in a Group insolvency event.

In relation to deficit recovery contributions, a lump sum contribution of £39m ($48m) was made in March 2023, with a further annual contribution of £39m ($50m) due before 31 March 2024, and each year up to March 2028.

Further progress was made over 2023 in equalising GMP for members of the UK Pension Fund. The method of equalisation converts GMP to non-GMP pension to simplify the structure and administration of benefits. As at 31 December 2023, almost all pensioner and dependent members have had their benefits equalised and, for non-pensioner members, a process will be in place in 2024 to equalise their benefits at their point of retirement. As part of the project, a Pension Increase Exchange ('PiE') option was also made available to the majority of pensioner members, at the Group's discretion. This option provided the member with a choice to opt for a higher pension right away, but with no, or fewer, inflation-linked increases in the future. Take-up of this option resulted in a reduction to expected future liabilities and a $16m past service credit was taken to the income statement in March 2023.

Under the governing documentation of the UK Pension Fund, any future surplus in the Fund would be returnable to the Group by refund assuming gradual settlement of the liabilities over the lifetime of the Fund. In particular, the Trustee has no unilateral right to wind up the Fund without Company consent nor does it have the power to unilaterally use surplus to augment benefits prior to wind-up. As such, there are no adjustments required in respect of IFRIC 14 'IAS 19 – The Limit on a Defined Benefit Asset, Minimum Funding Requirements and their Interaction'.

On current bases, it is expected that ongoing contributions (excluding those in respect of past service deficit contributions) during the year ending 31 December 2024 for the UK scheme will be approximately $18m.

United States

In May 2023, AstraZeneca Pharmaceuticals LP agreed a buy-out of its qualified US Defined Benefit Pension Plan with an external insurer. All Plan liabilities (approximately $840m) have now been discharged (via a mix of cash payments to participants and purchase of insured annuities), with an impact of $1.7m on the income statement and a net Group cash contribution of approximately $25m. The Plan is wound up and the Trust is closed. The transaction will be completed in 2024, pending approval of Group annuity contracts from State Regulators.

There are three remaining immaterial US post-retirement benefit plans and therefore from 2024, these will not be individually disclosed.

Sweden

The Swedish plans account for 20% of the Group's defined benefit obligations. They are governed by Fiduciary Bodies with responsibility for the investment of the assets. These plans are funded in line with the Group's financing principles and local regulations.

The Swedish defined benefit pension plans were actuarially valued at 31 December 2022, when plan obligations were estimated to amount to $1,312m and plan assets were $946m. The local Swedish GAAP funding position can influence contribution policy. Over 2023, for the main pension fund the Group did not request a reimbursement of benefit payments made throughout the year as the funding level was below 100% on the Swedish GAAP basis. The benefit payments over 2023, totalling approximately $47m, are therefore regarded as Group contributions.

On current bases, it is expected that ongoing contributions (excluding those in respect of past service deficit contributions) during the year ending 31 December 2024 for Sweden will be approximately $53m.

Other defined benefit plans

The Group provides benefit plans other than pensions which have to be reported under IAS 19. These include lump sum plans, long service awards and defined contribution pension plans which have a guaranteed minimum benefit. However, the largest category of these 'other' non-pension plans are healthcare benefits.

In the US, and to a lesser extent in certain other countries, the Group's employment practices include the provision of healthcare and life assurance benefits for eligible retired employees. As at 31 December 2023, some 2,673 retired employees and covered dependents currently benefit from these provisions and some 2,133 current employees will be eligible on their retirement. The Group accrues for the present value of such retiree obligations over the working life of the employee. In practice, these benefits will be funded with reference to the financing principles.

In the US, the Post Retirement Welfare Plan which provides retiree medical benefits has a surplus of $66m. As a result, the investment strategy has been fully de-risked. The Group has concluded that under current legislation, the surplus would be repayable in the future to subsidise other medical benefits offered to employees.

The cost of post-retirement benefits other than pensions for the Group in 2023 was $1m (2022: $1m; 2021: $1m). Plan assets were $161m and plan obligations were $114m at 31 December 2023. These benefit plans have been included in the disclosure of post-retirement benefits under IAS 19.

22 Post-retirement and other defined benefit schemes *continued*

Financial assumptions

Qualified independent actuaries have updated the actuarial valuations under IAS 19 for the major defined benefit schemes operated by the Group to 31 December 2023. The assumptions used may not necessarily be borne out in practice, due to the inherent financial and demographic uncertainty associated with making long-term projections. These assumptions reflect the changes which have the most material impact on the results of the Group and were as follows:

				2022
	UK	US	Sweden	Rest of Group[1]
Inflation assumption	3.2%	–	1.9%	2.5%
Rate of increase in salaries	–[2]	–	3.4%	4.0%
Rate of increase in pensions in payment	3.1%	–	1.9%	2.5%
Discount rate – defined benefit obligation	4.9%	5.0%	4.1%	3.7%
Discount rate – interest cost	5.0%	4.9%	4.0%	3.8%
Discount rate – service cost	4.8%	n/a	4.0%	3.7%

				2023
	UK	**US**	**Sweden**	**Rest of Group[1]**
Inflation assumption	**3.1%[3]**	**–**	**1.6%**	**2.2%**
Rate of increase in salaries	**–[2]**	**–**	**3.1%**	**3.7%**
Rate of increase in pensions in payment	**2.9%**	**–**	**1.6%**	**2.2%**
Discount rate – defined benefit obligation[4]	**4.6%**	**4.7%**	**3.3%**	**3.3%**
Discount rate – interest cost[5]	**4.6%**	**4.7%**	**3.3%**	**3.3%**
Discount rate – service cost[5]	**4.5%**	**n/a**	**3.3%**	**3.3%**

[1] Rest of Group reflects the assumptions in Germany as these have the most material impact on the Group.
[2] Pensionable pay frozen at 30 June 2010 levels following UK fund changes.
[3] The UK inflation assumption includes an allowance for some UK inflation experience over 2023.
[4] Group defined benefit obligation as at 31 December 2023 calculated using discount rates based on market conditions as at 31 December 2023.
[5] 2023 interest costs and service costs calculated using discount rates based on market conditions as at 31 December 2022.

The weighted average duration of the post-retirement scheme obligations is approximately 11 years in the UK, 16 years in Sweden and 13 years for the Rest of the Group (including Germany).

Demographic assumptions

The mortality assumptions are based on country-specific mortality tables. These are compared to actual experience and adjusted where sufficient data are available. Additional allowance for future improvements in life expectancy is included for all major schemes where there is credible data to support a continuing trend.

The table below illustrates life expectancy assumptions at age 65 for male and female members retiring in 2023 and male and female members expected to retire in 2043 (2022: 2022 and 2042 respectively).

	Life expectancy assumption for a male member retiring at age 65				Life expectancy assumption for a female member retiring at age 65			
Country	**2023**	**2043**	2022	2042	**2023**	**2043**	2022	2042
UK	**22.1**	**23.1**	22.2	23.2	**23.7**	**24.8**	23.8	24.9
US	**22.2**	**24.6**	22.0	23.2	**23.3**	**26.2**	23.4	25.0
Sweden	**21.8**	**23.6**	21.8	23.6	**23.9**	**26.0**	23.9	26.0

In the UK, the Group adopted the CMI 2022 Mortality Projections Model with a 1% long-term improvement rate. No other demographic assumptions have changed since they were updated in 2022 following the actuarial valuation. The Group has continued to assume that 25% of members (2022: 25%) will transfer out of the defined benefit section of the AstraZeneca Pension Fund at the point of retirement.

In the US and Sweden, the mortality assumptions are unchanged from 2022.

Risks associated with the Group's defined benefit pension schemes

The UK defined benefit plan accounts for 65% of the Group's defined benefit obligations and exposes the Group to a number of risks, the most significant of which are:

Risk	Description	Mitigation
Asset pricing risk	The Defined Benefit Obligation (DBO) is calculated using a discount rate set with reference to AA-rated corporate bond yields; asset returns that differ from the discount rate will create an element of volatility in the solvency ratio. Approximately 45% of the UK Pension Fund is allocated to growth assets. Although these growth assets are expected to outperform AA-rated corporate bonds in the long term, they can lead to volatility and mismatching risk in the short term. The allocation to growth assets is monitored to ensure it remains appropriate given the UK Pension Fund's long-term objectives.	In order to mitigate investment risk, the Trustee invests in a suitably diversified range of asset classes, return drivers and investment managers. The investment strategy will evolve to further improve the expected risk/return profile as opportunities arise. De-risking of the investment strategy took place over 2023, as the Fund moved ahead of its long-term target, with the benchmark allocation to Growth Assets reducing from 62.5% to 47.5%. The Trustee has hedged approximately 92% of unintended non-sterling, overseas currency risk within the UK Pension Fund assets.
Interest rate risk	A decrease in corporate bond yields will increase the present value placed on the DBO for accounting purposes.	The interest rate hedge of the UK Pension Fund is predominantly implemented via holding gilts (and gilt repurchase agreements or 'gilt repo') of appropriate duration. This hedge protects to a large degree against falls in long-term interest rates and the UK Pension Fund is approximately 98% hedged as a percentage of assets at the end of 2023 (versus target of 100%). Nonetheless, there remain differences in the bonds and instruments held by the UK Pension Fund to hedge interest rate risk on the statutory and long-term funding basis (gilts and gilt repo) and the bonds analysed to set the DBO discount rate on an accounting basis (AA corporate bonds). As such, there remains some mismatching risk on an accounting basis should yields on gilts diverge compared to AA corporate bonds.
Inflation risk	The majority of the DBO is indexed in line with price inflation (mainly inflation as measured by the UK Retail Price Index (RPI) but also for some members a component of pensions is indexed by the UK Consumer Price Index (CPI)) and higher inflation will lead to higher liabilities (although, in the vast majority of cases, this is capped at an annual increase of 5%, known as Limited Price Indexation or LPI).	The UK Pension Fund holds RPI index-linked gilts and gilt repo. The inflation hedge of the UK Pension Fund protects to some degree against higher-than-expected inflation increases on the DBO (approximately 100% hedged as a percentage of assets at the end of 2023). Over 2023, work was carried out by the Trustee to improve the accuracy of the hedge to LPI linked liabilities.
Life expectancy	The majority of the UK Pension Fund's obligations are to provide benefits for the life of the member, so increases in life expectancy will result in an increase in the liabilities.	In 2013 the Trustee entered into a longevity swap to hedge against the risk of increasing life expectancy over the next 75 years. The swap currently covers approximately 8,000 of the UK Pension Fund's pensioners, equivalent to $2.4bn of Pension fund liability. A one-year increase in life expectancy would result in a $214m increase in pension fund obligations, which would be partially offset by a $108m increase in the value of the longevity swap and hence the pension fund assets.
Cash flow and liquidity risk	The UK Pension Fund is maturing and cash flow negative. Assets are liquidated to meet benefit outgo and potentially from time to time, to supplement the collateral pool required to post margin for derivative holdings. There is a risk of the Trustee requesting liquidity support from the Group to meet margin calls or expenditure, if the liquidity position of the UK Pension Fund is not effectively monitored and managed.	The Trustee invests in a diversified portfolio of highly liquid assets to manage sequencing risk and operates a collateral management policy, maintaining a minimum liquidity 'buffer' above recommended regulatory guidelines, which can be quickly supplemented in an orderly manner. Over 2023, in addition to the Growth and Liability Hedging portfolios, the Trustee allocated 7% of assets to a new, cash flow driven investment portfolio, consisting of investment grade corporate bonds. The purpose of this portfolio is to generate income to help meet the Fund's benefit outgo. The portfolio is expected to grow over time as further de-risking occurs.

Other risks

There are a number of other risks of administering the UK Pension Fund which the Trustee manages with Group input. Some of the major risks include counterparty risks from using derivatives (mitigated by using a specialist investment manager to oversee a diversified range of counterparties of high standing and ensuring positions are collateralised daily). Furthermore, there are operational risks (such as paying out the wrong benefits) and legislative risks (such as the UK government introducing new legislation). These are mitigated so far as possible via the governance structure in place which oversees and administers the pension funds.

The Group's pension plans in Sweden also manage these key risks, where relevant, in a similar way, with the local fiduciary bodies investing in a diversified manner and employing a framework to hedge interest rate risk where practicable.

Local fiduciary boards are aware of Environmental, Social and Governance (ESG) risks as they pertain to investment policy, and where local regulation allows, have policies in place to monitor and manage such risks and comply with local legislation and disclosure requirements. The Trustee of the UK Pension Fund published its inaugural Task Force for Climate-related Disclosures (TCFD) report in October 2023.

22 Post-retirement and other defined benefit schemes *continued*

Assets and obligations of defined benefit schemes

The assets and obligations of the defined benefit schemes operated by the Group at 31 December 2023, as calculated in accordance with IAS 19, are shown below. The fair values of the schemes' assets are not intended to be realised in the short term and may be subject to significant change before they are realised. The present value of the schemes' obligations is derived from cash flow projections over long periods and is therefore inherently uncertain.

Scheme assets

	UK		US		Sweden		Rest of Group		Total		2022
	Quoted $m	Unquoted $m	Quoted $m	Unquoted $m	Quoted $m	Unquoted $m	Quoted $m	Unquoted $m	Quoted $m	Unquoted $m	Total $m
Government bonds[1]	1,931	–	104	–	–	–	60	–	2,095	–	2,095
Corporate bonds[2]	–	–	622	–	–	–	11	–	633	–	633
Derivatives[3]	–	(608)	(2)	(3)	–	325	(2)	–	(4)	(286)	(290)
Investment funds: Listed Equities[4]	–	265	–	–	–	–	49	4	49	269	318
Investment funds: Absolute Return/Multi Strategy[4]	–	1,701	–	–	–	475	6	–	6	2,176	2,182
Investment funds: Corporate Bonds/Credit[4]	–	817	–	–	–	144	49	10	49	971	1,020
Cash and cash equivalents	52	415	285	–	–	2	–	4	337	421	758
Other	–	–	–	2	–	–	1	311	1	313	314
Total fair value of scheme assets/(liabilities)[5]	1,983	2,590	1,009	(1)	–	946	174	329	3,166	3,864	7,030

	UK		US		Sweden		Rest of Group		Total		2023
	Quoted $m	Unquoted $m	Quoted $m	Unquoted $m	Quoted $m	Unquoted $m	Quoted $m	Unquoted $m	Quoted $m	Unquoted $m	Total $m
Government bonds[1]	**2,383**	**–**	**61**	**–**	**–**	**–**	**51**	**–**	**2,495**	**–**	**2,495**
Corporate bonds[2]	**373**	**–**	**94**	**–**	**–**	**–**	**6**	**–**	**473**	**–**	**473**
Derivatives[3]	**–**	**(532)**	**–**	**–**	**–**	**440**	**–**	**–**	**–**	**(92)**	**(92)**
Investment funds: Listed Equities[4]	**–**	**321**	**–**	**–**	**–**	**–**	**53**	**3**	**53**	**324**	**377**
Investment funds: Absolute Return/Multi Strategy[4]	**–**	**1,131**	**–**	**–**	**–**	**461**	**5**	**8**	**5**	**1,600**	**1,605**
Investment funds: Corporate Bonds/Credit[4]	**–**	**667**	**–**	**–**	**–**	**165**	**48**	**–**	**48**	**832**	**880**
Cash and cash equivalents	**53**	**363**	**5**	**–**	**–**	**2**	**–**	**3**	**58**	**368**	**426**
Other	**–**	**–**	**–**	**–**	**–**	**–**	**(1)**	**316**	**(1)**	**316**	**315**
Total fair value of scheme assets[5]	**2,809**	**1,950**	**160**	**–**	**–**	**1,068**	**162**	**330**	**3,131**	**3,348**	**6,479**

[1] Predominantly developed markets in nature.

[2] Predominantly developed markets in nature and investment grade (AAA-BBB).

[3] Includes interest rate swaps, inflation swaps, longevity swap, equity total return swaps and other contracts. More detail is given in the section Risks associated with the Group's defined benefit pensions on page 187. Valuations are determined by independent third parties.

[4] Investment Funds are pooled, commingled vehicles, whereby the pension scheme owns units in the fund, alongside other investors. The pension schemes invest in a number of Investment Funds, including Listed Equities (primarily developed markets with some emerging markets), Corporate Bonds/Credit (a range of investment-grade and non investment-grade credit) and Absolute Return/Multi Strategy (multi-asset exposure both across and within traditional and alternative asset classes). The price of the funds is set by independent administrators/custodians employed by the investment managers and based on the value of the underlying assets held in the fund. Details of pricing methodology is set out within internal control reports provided for each fund. Prices are updated daily, weekly or monthly depending upon the frequency of the fund's dealing.

[5] None of the Group's own assets were included in the scheme assets (2022: $1m). The assets held in 2022 were AstraZeneca corporate debt held by the US qualified plan and amounted to 0.05% of the plan's then assets.

Scheme obligations

	UK $m	US $m	Sweden $m	Rest of Group $m	2022 Total $m
Present value of scheme obligations in respect of:					
Active membership	(212)	(54)	(430)	(424)	(1,120)
Deferred membership	(804)	(437)	(369)	(299)	(1,909)
Pensioners	(3,785)	(531)	(513)	(250)	(5,079)
Total value of scheme obligations	(4,801)	(1,022)	(1,312)	(973)	(8,108)

	UK $m	US $m	Sweden $m	Rest of Group $m	2023 Total $m
Present value of scheme obligations in respect of:					
Active membership	**(233)**	**(45)**	**(553)**	**(442)**	**(1,273)**
Deferred membership	**(853)**	**(2)**	**(443)**	**(294)**	**(1,592)**
Pensioners	**(4,075)**	**(107)**	**(606)**	**(254)**	**(5,042)**
Total value of scheme obligations	**(5,161)**	**(154)**	**(1,602)**	**(990)**	**(7,907)**

Net (deficit)/surplus in the scheme

	UK $m	US $m	Sweden $m	Rest of Group $m	2022 Total $m
Total fair value of scheme assets	4,573	1,008	946	503	7,030
Total value of scheme obligations	(4,801)	(1,022)	(1,312)	(973)	(8,108)
Deficit in the scheme as recognised in the Consolidated Statement of Financial Position	(228)	(14)	(366)	(470)	(1,078)
Included in Non-current other receivables	–	62	–	28[1]	90
Included in Retirement benefit obligations	(228)	(76)	(366)	(498)	(1,168)
	(228)	(14)	(366)	(470)	(1,078)

	UK $m	**US $m**	**Sweden $m**	**Rest of Group $m**	**2023 Total $m**
Total fair value of scheme assets	**4,759**	**160**	**1,068**	**492**	**6,479**
Total value of scheme obligations	**(5,161)**	**(154)**	**(1,602)**	**(990)**	**(7,907)**
(Deficit)/surplus in the scheme as recognised in the Consolidated Statement of Financial Position	**(402)**	**6**	**(534)**	**(498)**	**(1,428)**
Included in Non-current other receivables	**–**	**66**	**–**	**26**[1]	**92**
Included in Retirement benefit obligations	**(402)**	**(60)**	**(534)**	**(524)**	**(1,520)**
	(402)	**6**	**(534)**	**(498)**	**(1,428)**

[1] Surpluses were recognised in Ireland and Belgium.

Fair value of scheme assets

	UK $m	**US $m**	**Sweden $m**	**Rest of Group $m**	**2023 Total $m**	UK $m	US $m	Sweden $m	Rest of Group $m	2022 Total $m
At beginning of year	**4,573**	**1,008**	**946**	**503**	**7,030**	7,333	1,413	1,234	584	10,564
Interest income on scheme assets	**229**	**22**	**38**	**11**	**300**	123	29	18	5	175
Expenses	**(9)**	**(1)**	**–**	**(1)**	**(11)**	(5)	(2)	–	–	(7)
Actuarial (losses)/gains	**(59)**	**2**	**37**	**(45)**	**(65)**	(1,964)	(295)	(153)	(55)	(2,467)
Exchange and other adjustments	**262**	**(1)**	**48**	**20**	**329**	(728)	–	(152)	(34)	(914)
Employer contributions	**65**	**35**	**46**	**42**	**188**	118	7	43	37	205
Participant contributions	**1**	**4**	**–**	**7**	**12**	1	5	–	5	11
Benefits paid	**(303)**	**(68)**	**(47)**	**(45)**	**(463)**	(305)	(149)	(44)	(39)	(537)
Settlements	**–**	**(841)**	**–**	**–**	**(841)**	–	–	–	–	–
Scheme assets' fair value at end of year	**4,759**	**160**	**1,068**	**492**	**6,479**	4,573	1,008	946	503	7,030

The actual return on the plan assets was a gain of $235m (2022: loss of $2,292m).

Movement in post-retirement scheme obligations

	UK $m	**US $m**	**Sweden $m**	**Rest of Group $m**	**2023 Total $m**	UK $m	US $m	Sweden $m	Rest of Group $m	2022 Total $m
Present value of obligations in scheme at beginning of year	**(4,801)**	**(1,022)**	**(1,312)**	**(973)**	**(8,108)**	(7,941)	(1,404)	(2,373)	(1,300)	(13,018)
Current service cost	**(6)**	**(2)**	**(13)**	**(35)**	**(56)**	(14)	(1)	(35)	(38)	(88)
Past service credit/(cost)	**12**	**–**	**(2)**	**2**	**12**	(5)	–	(4)	3	(6)
Participant contributions	**(1)**	**(4)**	**–**	**(7)**	**(12)**	(1)	(4)	–	(5)	(10)
Benefits paid	**303**	**68**	**47**	**45**	**463**	305	149	44	39	537
Interest expense on post-retirement scheme obligations	**(239)**	**(22)**	**(50)**	**(27)**	**(338)**	(132)	(29)	(31)	(12)	(204)
Actuarial (losses)/gains	**(155)**	**(12)**	**(202)**	**28**	**(341)**	2,243	268	806	268	3,585
Exchange and other adjustments	**(274)**	**1**	**(70)**	**(34)**	**(377)**	744	(1)	281	72	1,096
Settlements	**–**	**839**	**–**	**11**	**850**	–	–	–	–	–
Present value of obligations in scheme at end of year	**(5,161)**	**(154)**	**(1,602)**	**(990)**	**(7,907)**	(4,801)	(1,022)	(1,312)	(973)	(8,108)

The obligations arise from over 50 plans in 28 countries:

	UK $m	**US $m**	**Sweden $m**	**Rest of Group $m**	**2023 Total $m**	UK $m	US $m	Sweden $m	Rest of Group $m	2022 Total $m
Funded – pension schemes[1]	**(5,151)**	**–**	**(1,599)**	**(868)**	**(7,618)**	(4,787)	(851)	(1,310)	(842)	(7,790)
Funded – post-retirement healthcare	**–**	**(94)**	**–**	**–**	**(94)**	–	(111)	–	–	(111)
Unfunded – pension schemes[1]	**–**	**(60)**	**(3)**	**(113)**	**(176)**	–	(60)	(2)	(122)	(184)
Unfunded – post-retirement healthcare	**(10)**	**–**	**–**	**(9)**	**(19)**	(14)	–	–	(9)	(23)
Total	**(5,161)**	**(154)**	**(1,602)**	**(990)**	**(7,907)**	(4,801)	(1,022)	(1,312)	(973)	(8,108)

[1] Includes defined benefit pension schemes and other plans, such as lump sum, long service awards and DC plans with underpins.

22 Post-retirement and other defined benefit schemes *continued*

Consolidated Statement of Comprehensive Income disclosures

The amounts that have been charged to the Consolidated Statement of Comprehensive Income, in respect of defined benefit schemes for the year ended 31 December 2023, are set out below.

	2023					2022				
	UK $m	**US $m**	**Sweden $m**	**Rest of Group $m**	**Total $m**	UK $m	US $m	Sweden $m	Rest of Group $m	Total $m
Operating profit										
Current service cost	**(6)**	**(2)**	**(13)**	**(35)**	**(56)**	(14)	(1)	(35)	(38)	(88)
Past service credit/(cost)	**12**	**–**	**(2)**	**2**	**12**	(5)	–	(4)	3	(6)
Expenses	**(9)**	**(1)**	**–**	**(1)**	**(11)**	(5)	(2)	–	–	(7)
Total charge to Operating profit	**(3)**	**(3)**	**(15)**	**(34)**	**(55)**	(24)	(3)	(39)	(35)	(101)
Finance expense										
Interest income on scheme assets	**229**	**22**	**38**	**11**	**300**	123	29	18	5	175
Interest expense on post-retirement scheme obligations	**(239)**	**(22)**	**(50)**	**(27)**	**(338)**	(132)	(29)	(31)	(12)	(204)
Net interest on post-employment defined benefit plan liabilities	**(10)**	**–**	**(12)**	**(16)**	**(38)**	(9)	–	(13)	(7)	(29)
Charge before taxation	**(13)**	**(3)**	**(27)**	**(50)**	**(93)**	(33)	(3)	(52)	(42)	(130)
Other comprehensive income										
Difference between the actual return and the expected return on the post-retirement scheme assets	**(59)**	**2**	**37**	**(45)**	**(65)**	(1,964)	(295)	(153)	(55)	(2,467)
Experience (losses)/gains arising on the post-retirement scheme obligations	**(25)**	**(2)**	**(67)**	**(13)**	**(107)**	55	(16)	(99)	(6)	(66)
Changes in financial assumptions underlying the present value of the post-retirement scheme obligations	**(142)**	**(10)**	**(135)**	**44**	**(243)**	2,272	284	896	275	3,727
Changes in demographic assumptions	**12**	**–**	**–**	**(3)**	**9**	(84)	–	9	(1)	(76)
Remeasurement of the defined benefit liability	**(214)**	**(10)**	**(165)**	**(17)**	**(406)**	279	(27)	653	213	1,118

Past service cost includes granting early retirement in UK and Sweden.

Total Group pension costs in respect of defined contribution and defined benefit schemes during the year are set out below (see Note 29).

	2023 $m	2022 $m
Defined contribution schemes	**482**	445
Defined benefit schemes – Current service cost and Expenses	**67**	95
Defined benefit schemes – Past service (credit)/cost	**(12)**	6
Pension costs	**537**	546

SE Rate sensitivities

The following table shows the US dollar effect of a change in the significant actuarial assumptions used to determine the retirement benefits obligations in our three main defined benefit pension obligation countries.

	2023		2022	
	+0.5%	**–0.5%**	+0.5%	–0.5%
Discount rate				
UK ($m)	**269**	**(308)**	262	(289)
US ($m)	**4**	**(4)**	46	(49)
Sweden ($m)	**109**	**(123)**	95	(107)
Total ($m)	**382**	**(435)**	403	(445)

	2023		2022	
	+0.5%	**–0.5%**	+0.5%	–0.5%
Inflation rate[1]				
UK ($m)	**(189)**	**184**	(173)	165
US ($m)	**n/a**	**n/a**	n/a	n/a
Sweden ($m)	**(116)**	**104**	(104)	93
Total ($m)	**(305)**	**288**	(277)	258

	2023		2022	
	+0.5%	**–0.5%**	+0.5%	–0.5%
Rate of increase in salaries				
UK ($m)	**n/a**	**n/a**	n/a	n/a
US ($m)	**n/a**	**n/a**	n/a	n/a
Sweden ($m)	**(46)**	**42**	(47)	43
Total ($m)	**(46)**	**42**	(47)	43

	2023		2022	
	+1 year	–1 year	+1 year	–1 year
Mortality rate				
UK ($m)	**(214)**[2]	**212**[3]	(191)	193
US ($m)	**(2)**	**2**	(20)	20
Sweden ($m)	**(51)**	**51**	(44)	44
Total ($m)	**(267)**	**265**	(255)	257

[1] Rate of increase in pensions in payment follows inflation.
[2] Of the $214m increase, $108m is covered by the longevity swap.
[3] Of the $212m decrease, $106m is covered by the longevity swap.

In consideration of current market conditions, additional sensitivities have been calculated for the UK and Sweden schemes for 2023. The effect on retirement benefit obligations of a 1.0% change in assumption is as follows: $525m (UK) and $210m (Sweden) if the discount rate is increased; $(634)m (UK) and $(254)m (Sweden) if the discount rate is decreased; $(384)m (UK) and $(240)m (Sweden) if the inflation rate is increased; and $363m (UK) and $201m (Sweden) if the inflation rate is decreased.

The sensitivity to the financial assumptions shown above has been estimated taking into account the approximate duration of the liabilities and the overall profile of the plan membership.

The inflation sensitivity allows for the impact of a change in inflation on salary increases and pension increases (where these assumptions are inflation-linked).

The salary increase sensitivity reflects the impact of an increase of only salary relative to inflation.

The sensitivity to the life expectancy assumption is estimated based on a revised mortality assumption that extends/reduces the current life expectancy by one year for a particular age.

23 Reserves

Retained earnings

The cumulative amount of goodwill written off directly to reserves resulting from acquisitions, net of disposals, amounted to $595m (2022: $591m; 2021: $615m) using year end rates of exchange.

At 31 December 2023, 1,580,137 shares, at a cost of $129m, have been deducted from Retained earnings (2022: 1,671,446 shares, at a cost of $112m; 2021: 3,922,122 shares, at a cost of $239m) to satisfy future vesting of employee share plans.

There are no significant statutory or contractual restrictions on the distribution of current profits of subsidiaries; undistributed profits of prior years are, in the main, permanently employed in the businesses of these companies. The undistributed income of AstraZeneca companies overseas might be liable to overseas taxes and/or UK taxation (after allowing for double taxation relief) if they were to be distributed as dividends (see Note 4).

	2023 $m	2022 $m	2021 $m
Cumulative translation differences included within Retained earnings			
At 1 January	**(3,694)**	(1,934)	(1,143)
Foreign exchange arising on consolidation	**608**	(1,446)	(483)
Exchange adjustments on goodwill (recorded against other reserves)	**4**	(24)	(21)
Foreign exchange arising on designated liabilities in net investment hedges[1]	**24**	(282)	(321)
Fair value movements on derivatives designated in net investment hedges	**44**	(8)	34
Net exchange movement in Retained earnings	**680**	(1,760)	(791)
At 31 December	**(3,014)**	(3,694)	(1,934)

[1] Foreign exchange arising on designated liabilities in net investment hedges includes $(57)m in respect of designated bonds and $81m in respect of designated contingent consideration and other liabilities. The change in value of designated contingent consideration liabilities relates to $82m in respect of BMS' share of Global Diabetes Alliance.

The cumulative loss with respect to costs of hedging is $22m (2022: loss of $3m; 2021: gain of $4m) and the loss during the year was $19m (2022: loss of $7m; 2021: loss of $6m).

The balance remaining in the foreign currency translation reserve from net investment hedging relationships for which hedge accounting no longer applied is a gain of $527m. For further detail relating to hedging balances, please see the Hedge accounting section within Note 28, from page 200.

Other reserves

The other reserves arose from the cancellation of £1,255m of share premium account by the Company in 1993 and the redenomination of share capital of $157m in 1999. The reserves are available for writing off goodwill arising on consolidation and, subject to guarantees given to preserve creditors at the date of the court order, are available for distribution.

24 Share capital

	Allotted, called-up and fully paid		
	2023 $m	2022 $m	2021 $m
Issued Ordinary Shares ($0.25 each)	**388**	387	387
Redeemable Preference Shares (£1 each – £50,000)	**–**	–	–
At 31 December	**388**	387	387

The Redeemable Preference Shares carry limited class voting rights and no dividend rights. This class of shares is capable of redemption at par at the option of the Company on the giving of seven days' written notice to the registered holder of the shares.

The Company does not have a limited amount of authorised share capital.

The movements in the number of Ordinary Shares during the year can be summarised as follows:

	No. of shares		
	2023	2022	2021
At 1 January	**1,549,800,030**	1,549,400,665	1,312,668,724
Issue of share capital (business combinations)	**–**	–	236,321,411
Issue of shares (share schemes)	**362,596**	399,365	410,530
At 31 December	**1,550,162,626**	1,549,800,030	1,549,400,665

Share issues
Issue of share capital (business combinations) represents share capital issued as part of the acquisition of Alexion (see Note 27).

Share repurchases
No Ordinary Shares were repurchased by the Company in 2023 (2022: nil; 2021: nil).

Shares held by subsidiaries
No shares in the Company were held by subsidiaries in any year.

25 Dividends to shareholders

	2023 Per share	2022 Per share	2021 Per share	**2023 $m**	2022 $m	2021 $m
Second interim (March 2023)	**$1.97**	$1.97	$1.90	**3,047**	3,046	2,490
First interim (September 2023)	**$0.93**	$0.93	$0.90	**1,440**	1,440	1,392
Total	**$2.90**	$2.90	$2.80	**4,487**	4,486	3,882

The Company has exercised its authority in accordance with the provisions set out in the Company's Articles of Association, that the balance of unclaimed dividends outstanding past 12 years be forfeited. Unclaimed dividends of $nil (2022: $1m; 2021: $nil) have been adjusted for in Retained earnings in 2023.

The 2022 second interim dividend of $1.97 per share was paid on 27 March 2023. The 2023 first interim dividend of $0.93 per share was paid on 11 September 2023.

Reconciliation of dividends charged to equity to cash flow statement:

	2023 $m	2022 $m	2021 $m
Dividends charged to equity	**4,487**	4,486	3,882
Exchange losses on payment of dividend	**5**	5	3
Hedge contracts relating to payment of dividends (cash flow statement)	**(19)**	(127)	(29)
Dividends paid to non-controlling interests	**4**	–	–
Net movement of unclaimed dividends in the year	**4**	–	–
Dividends paid (cash flow statement)	**4,481**	4,364	3,856

26 Non-controlling interests

The Group Financial Statements at 31 December 2023 reflect equity of $23m (2022: $21m; 2021: $19m) and total comprehensive income of $6m (2022: $2m; 2021: $3m) attributable to the non-controlling interests in AstraZeneca Pharma India Limited, P.T. AstraZeneca Indonesia, Beijing Falikang Pharmaceutical (China) Co. Limited, and AstraZeneca Algeria Pharmaceutical Industries SPA.

In February 2016, AstraZeneca acquired a 55% controlling stake in Acerta Pharma where the non-controlling interest was subject to put and call options. The put option gave rise to a liability (see Note 20). AstraZeneca exercised its option to acquire the remaining 45% of shares in Acerta Pharma in April 2021.

As part of the acquisition of Alexion in July 2021, a pre-existing non-controlling interest in Caelum Biosciences was recognised (Note 27). This was valued at $150m, the agreed-upon exercise price for the exclusive option to acquire the remaining equity. The option was exercised on 28 September 2021 and the acquisition of Caelum Biosciences closed shortly thereafter on 5 October 2021.

27 Acquisition of business operations

Acquisitions of business operations in 2023

On 16 January 2023, AstraZeneca completed the acquisition of Neogene Therapeutics Inc. (Neogene), a global clinical-stage biotechnology company pioneering the discovery, development and manufacturing of next-generation T-cell receptor therapies (TCR-Ts). The purchase price allocation exercise has completed, with the fair value of total consideration determined at $267m. Intangible assets of $100m and goodwill of $158m were recognised in the acquisition balance sheet, as well as a cash outflow of $189m net of cash acquired. Future contingent milestones-based and non-contingent consideration is payable to a maximum of $120m. Neogene's results have been consolidated into the Group's results from 16 January 2023.

Acquisitions of business operations in 2022

On 16 November 2022, AstraZeneca completed the acquisition of 100% of the issued shares of LogicBio Therapeutics, Inc. (LogicBio) based in Lexington, MA, US. LogicBio is a clinical-stage genetic medicine company pioneering genome editing and gene delivery platforms to address rare and serious diseases from infancy through adulthood. The total consideration was $72m. Cash of $68m was paid on the completion date, with $4m of outstanding options, which will be settled in cash, recorded in current Trade and other payables. Goodwill of $15m, assets of $82m, including $46m of intangible assets, and liabilities of $25m were recognised on acquisition. LogicBio's results have been consolidated into the Group's results from 16 November 2022.

Acquisitions of business operations in 2021

On 21 July 2021, AstraZeneca completed the acquisition of 100% of the issued shares of Alexion Pharmaceuticals, Inc (Alexion), based in Boston, MA, US. Alexion is a global biopharmaceutical company focused on serving patients and families affected by rare diseases and devastating conditions through the discovery, development and commercialisation of life-changing medicines.

At closing, Alexion shareholders received 2.1243 AstraZeneca American Depositary Shares (ADSs) and $60 in cash for each of their Alexion shares. Unvested Alexion employee share awards were converted to equivalent AstraZeneca share awards. The fair value of the purchase consideration was $41,058m, comprising AstraZeneca ADSs of $27,196m, cash of $13,349m and replacement employee share awards of $513m.

The Group funded the cash element of the acquisition with $8bn of new long-term debt, issued in May and June 2021, $4bn of term loans drawn in July 2021 under the $17.5bn committed bank facilities entered into in December 2020 to secure the acquisition financing, and existing cash balances. The Group cancelled the remaining $13.5bn of the facilities in June, July and October 2021. Loans and borrowings of $2.3bn acquired with Alexion were repaid in full shortly following completion of the acquisition.

The acquisition was accounted for as a business combination using the acquisition method of accounting in accordance with IFRS 3 'Business Combinations' and consequently the Alexion assets acquired, and liabilities assumed, were recorded by AstraZeneca at fair value, with the excess of the purchase price over the fair value of the identifiable assets and liabilities being recognised as goodwill.

KJ As part of the Alexion acquisition in 2021, we identified the assets (comprising principally launched products and IPR&D post pre-clinical stage) and liabilities acquired. Attributing fair values to assets acquired and liabilities assumed as part of business combinations is considered to be a key judgement. The purchase price allocation was performed with assistance from an independent valuer to advise on the valuation techniques and key assumptions in the valuation, in particular in respect of the valuation of the intangible assets and inventory.

27 Acquisition of business operations *continued*

The fair values assigned to the Alexion business combination in 2021 were:

	Fair value $m
Non-current assets	
Property, plant and equipment	1,135
Right-of-use assets	263
Intangible assets	26,855
Other non-current assets	301
	28,554
Current assets	
Inventories	6,769
Trade and other receivables	2,096
Intangible assets	100
Cash and cash equivalents	4,086
	13,051
Current liabilities	
Interest-bearing loans and borrowings	(2,336)
Trade and other payables	(1,192)
Other current liabilities	(40)
	(3,568)
Non-current liabilities	
Lease liabilities	(228)
Deferred tax liabilities	(4,191)
Other non-current liabilities	(697)
	(5,116)
Total net assets acquired	32,921
Less: non-controlling interests	(150)
Goodwill	8,287
Total fair value of consideration	41,058
Less: fair value of equity consideration	(27,196)
Less: fair value of replacement employee share awards	(513)
Less: cash and cash equivalents acquired	(4,086)
Net cash outflow	9,263

The estimated fair value and useful lives of intangible assets were as follows:

	Fair value $m	Useful lives Years
Launched products – C5 franchise (*Soliris*/*Ultomiris*)	18,480	6 to 15
Launched products – *Strensiq*, *Kanuma*, *Andexxa*	5,215	11 to 17
Products in development	2,760	Not amortised
Other intangibles	500	5 to 10
	26,955	

The fair value attributed to intangible assets was $26,955m and primarily represents intellectual property rights over launched products of $23,695m and products under development of $2,760m. These were fair valued using the multi-period excess earnings method, which uses a number of estimates regarding the amount and timing of future cash flows. The key assumptions in the cash flows are the probability of technical and regulatory success, peak year sales and revenue erosion curves. In accordance with the Group's policy on impairment assessments as set out on page 159, the assets were assessed for impairment in the final quarter of 2023, 2022 and 2021. Future milestones have been included in the valuation of the intangible assets (as a deduction of cash flows).

The fair value of inventory, which includes raw materials, work in progress and finished goods related to the launched products was estimated at $6,769m, an uplift of $5,635m on the carrying value prior to the acquisition. The fair value adjustment relates only to work in progress and finished goods and was calculated as the estimated selling price less costs to complete and sell the inventory, associated margins on these activities and holding costs. As at 31 December 2023, the fair value uplift has been fully unwound.

Property, plant and equipment principally comprises the manufacturing facilities in Dublin and Athlone, Ireland and was fair valued using a cost approach. The estimated fair value of $1,135m represents an uplift of $111m over carrying value.

The estimated fair value of contingent liabilities was $76m, relating to various claims and disputes in each case where there is a possible, but not probable, future financial exposure, and involve an assessment of the likelihood of a number of scenarios in relation to those matters. This amount has been included within other non-current liabilities of $697m.

The estimated fair value of trade and other receivables was $2,096m, which approximated the contractual cash flows.

The net deferred tax position reflected an adjustment of $5,215m related to the deferred tax impact of the fair value uplifts on intangible assets, inventories, property, plant and equipment and contingent liabilities as described above.

Goodwill amounting to $8,287m was recognised on acquisition and is underpinned by a number of elements, which individually could not be quantified. Most significant among these is the premium attributable to a pre-existing, well-positioned business in the innovation-intensive, high-growth rare diseases market with a highly skilled workforce and established reputation. Other important elements include the potential unidentified products that future research and development may yield and the core technological capabilities and knowledge base of the company. Goodwill is not expected to be deductible for tax purposes.

Non-controlling interests reflect Alexion's pre-existing minority equity interest in Caelum Biosciences and have been valued at $150m, the agreed-upon exercise price for the exclusive option to acquire the remaining equity. The option was exercised on 28 September 2021 and the acquisition of Caelum Biosciences closed shortly thereafter on 5 October 2021 (Note 26).

Alexion's results have been consolidated into the Group's results from 21 July 2021. For the period from acquisition to 31 December 2021, before reflecting the fair value adjustments arising on the acquisition, Alexion's Total Revenues were $3,071m and Profit after tax was $889m. If the acquisition had taken effect at the beginning of the reporting period in which the acquisition occurred (1 January 2021), on a pro forma basis, after reflecting the fair value adjustments arising on the acquisition, the Total Revenue of the combined Group for the year ended 31 December 2021 would have been $41,132m and the Loss after tax would have been $1,152m. This pro forma information does not purport to represent the results of the combined Group that actually would have occurred had the acquisition taken place on 1 January 2021 and should not be taken to be representative of future results.

Total acquisition-related costs of $5m (2022: $4m; 2021: $171m) have been incurred by the Group, which include advisory, legal and other professional fees. These costs are presented in the Statement of Comprehensive Income within Selling, general and administrative expense and Finance expense.

The terms of the acquisition include a retention bonus plan for legacy Alexion employees whereby up to $50m may be used for retention bonus awards to employees at the level of Vice President or below. In 2023, $nil costs were recorded in the Statement of Comprehensive Income (2022: $3m; 2021: $24m). These bonuses vested and were paid six months after the acquisition, or earlier.

Upon completion of the acquisition, all unvested Alexion employee share awards were converted into AstraZeneca restricted stock awards that continue to have, and shall be subject to, the same terms and conditions as applied in the corresponding Alexion awards immediately prior to completion. Alexion Performance Stock Plan (PSU) awards that included performance-based vesting conditions were converted using the greater of the original target level and Alexion's assessment of the level of achievement immediately prior to completion (subject to a limit of 175% for the awards granted in 2019 and a limit of 150% for the awards granted in 2020). In the year, a cost of $48m (2022: $257m; 2021: $257m) has been recorded in the Statement of Comprehensive Income, $nil (2022: $9m; 2021: $9m) in Cost of sales, $16m (2022: $92m; 2021: $73m) in Research and development expense and $32m (2022: $156m; 2021: $175m) in Selling, general and administrative expense. Payments made to the Employee Benefit Trust upon vesting of share awards recognised as part of the consideration for the acquisition of Alexion are recognised within investing activities in the Group's Statement of Cash Flows as the cash payment relates to the settlement of the obligation that arose on the acquisition of Alexion that was included as part of the consideration for the acquisition.

28 Financial risk management objectives and policies

The Group's principal financial instruments, other than derivatives, comprise bank overdrafts, loans and other borrowings, lease liabilities, current and non-current investments, cash and short-term deposits. The main purpose of these financial instruments is to manage the Group's funding and liquidity requirements. The Group has other financial assets and liabilities such as trade receivables and trade payables, which arise directly from its operations.

The principal financial risks to which the Group is exposed are those of liquidity, interest rate, foreign currency and credit. Each of these is managed in accordance with Board-approved policies. These policies, together with the Group's approach to capital management, are set out below.

Capital management

The capital structure of the Group consists of Shareholders' equity (Note 24), Debt (Note 19), Other current investments (Note 12) and Cash (Note 17). For the foreseeable future, the Board will maintain a capital structure that supports the Group's strategic objectives through:

- managing funding and liquidity risk
- optimising shareholder return
- maintaining a strong, investment-grade credit rating.

The Group utilises factoring arrangements and bank acceptance drafts discounting for selected trade receivables. These arrangements qualify for full derecognition of the associated trade receivables under IFRS 9. Amounts due on invoices that have not been factored at year end, from customers that are subject to these arrangements, are disclosed in Note 16.

Funding and liquidity risk are reviewed regularly by the Board and managed in accordance with the policies described below.

The Board regularly reviews its shareholders' distribution policy, which comprises a regular cash dividend and potentially a share repurchase component. No share repurchases have been made since 2012.

The Group's net debt position (loans and borrowings net of Cash and cash equivalents, Other investments and Derivative financial instruments) has decreased from a net debt position of $22,923m at the beginning of the year to a net debt position of $22,510m at 31 December 2023.

28 Financial risk management objectives and policies *continued*

Liquidity risk

The Board reviews the Group's ongoing liquidity risks annually as part of the planning process and on an ad hoc basis. The Board considers short-term requirements against available sources of funding, taking into account forecast cash flows. The Group manages liquidity risk by maintaining access to a number of sources of funding which are sufficient to meet anticipated funding requirements. Specifically, the Group uses US and European commercial paper, bank loans, committed bank facilities and cash resources to manage short-term liquidity and manages long-term liquidity by raising funds through the capital markets. At 31 December 2023, the Group was assigned short-term credit ratings of P-1 by Moody's and A-1 by Standard and Poor's. The Group's long-term credit rating was A2 Stable outlook by Moody's and A Stable outlook by Standard and Poor's.

In addition to Cash and cash equivalents of $5,840m, short-term fixed income investments of $20m, less overdrafts of $203m at 31 December 2023, the Group has committed bank facilities of $6,875m available to manage liquidity. These committed bank facilities have no financial covenants. $2,000m mature in February 2025. The maturity of the $4,875m facilities was extended in February 2024 from April 2026 to April 2029. The Group regularly monitors the credit standing of the banks providing the facilities and currently does not anticipate any issue with drawing on the committed facilities should this be necessary. Advances under these facilities currently bear an interest rate per annum based on SOFR (Secured Overnight Financing Rate) plus a margin.

At 31 December 2023, the Group has $4,855m outstanding from debt issued under a Euro Medium Term Note programme and $19,959m under a SEC-registered programme. The funds made available under these facility agreements may be used for the general corporate purposes of the Group.

The maturity profile of the anticipated future contractual cash flows including interest in relation to the Group's financial liabilities, on an undiscounted basis and which, therefore, differs from both the carrying value and fair value, is as follows:

	Bank overdrafts and other loans $m	Bonds and bank loans $m	Lease liability $m	Trade and other payables $m	Total non-derivative financial instruments $m	Derivative financial instruments receivable $m	Derivative financial instruments payable $m	Total derivative financial instruments $m	Total $m
Within one year	387	1,981	256	19,007	21,631	(11,766)	11,774	8	21,639
In one to two years	–	5,647	210	2,521	8,378	(55)	66	11	8,389
In two to three years	–	5,242	163	1,669	7,074	(1,060)	1,079	19	7,093
In three to four years	–	2,591	130	862	3,583	(35)	39	4	3,587
In four to five years	–	2,970	96	233	3,299	(118)	111	(7)	3,292
In more than five years	–	19,727	221	2,212	22,160	(1,521)	1,480	(41)	22,119
	387	38,158	1,076	26,504	66,125	(14,555)	14,549	(6)	66,119
Effect of interest	–	(8,609)	–	–	(8,609)	299	(325)	(26)	(8,635)
Effect of discounting, fair values and issue costs	–	(142)	(89)	(2,633)	(2,864)	(36)	7	(29)	(2,893)
31 December 2021	387	29,407	987	23,871	54,652	(14,292)	14,231	(61)	54,591

	Bank overdrafts and other loans $m	Bonds and bank loans $m	Lease liability $m	Trade and other payables $m	Total non-derivative financial instruments $m	Derivative financial instruments receivable $m	Derivative financial instruments payable $m	Total derivative financial instruments $m	Total $m
Within one year	365	5,777	249	19,065	25,456	(12,445)	12,478	33	25,489
In one to two years	–	5,233	208	2,086	7,527	(1,012)	1,078	66	7,593
In two to three years	–	2,608	172	872	3,652	(34)	38	4	3,656
In three to four years	–	2,983	128	595	3,706	(103)	103	–	3,706
In four to five years	–	1,267	84	814	2,165	(32)	35	3	2,168
In more than five years	–	18,156	184	3,177	21,517	(1,436)	1,378	(58)	21,459
	365	36,024	1,025	26,609	64,023	(15,062)	15,110	48	64,071
Effect of interest	(15)	(7,982)	–	–	(7,997)	227	(249)	(22)	(8,019)
Effect of discounting, fair values and issue costs	–	(113)	(72)	(3,299)	(3,484)	63	7	70	(3,414)
31 December 2022	350	27,929	953	23,310	52,542	(14,772)	14,868	96	52,638

	Bank overdrafts and other loans $m	**Bonds and bank loans $m**	**Lease liability $m**	**Trade and other payables $m**	**Total non-derivative financial instruments $m**	**Derivative financial instruments receivable $m**	**Derivative financial instruments payable $m**	**Total derivative financial instruments $m**	**Total $m**
Within one year	**542**	**5,469**	**313**	**22,401**	**28,725**	**(11,302)**	**11,366**	**64**	**28,789**
In one to two years	**–**	**2,764**	**261**	**1,482**	**4,507**	**(100)**	**114**	**14**	**4,521**
In two to three years	**–**	**3,137**	**208**	**788**	**4,133**	**(164)**	**179**	**15**	**4,148**
In three to four years	**–**	**2,230**	**138**	**625**	**2,993**	**(924)**	**883**	**(41)**	**2,952**
In four to five years	**–**	**3,822**	**88**	**12**	**3,922**	**(949)**	**971**	**22**	**3,944**
In more than five years	**–**	**17,995**	**271**	**35**	**18,301**	**(1,507)**	**1,340**	**(167)**	**18,134**
	542	**35,417**	**1,279**	**25,343**	**62,581**	**(14,946)**	**14,853**	**(93)**	**62,488**
Effect of interest	**(27)**	**(8,270)**	**–**	**–**	**(8,297)**	**589**	**(644)**	**(55)**	**(8,352)**
Effect of discounting, fair values and issue costs	**–**	**(168)**	**(151)**	**(309)**	**(628)**	**44**	**(46)**	**(2)**	**(630)**
31 December 2023	**515**	**26,979**	**1,128**	**25,034**	**53,656**	**(14,313)**	**14,163**	**(150)**	**53,506**

Where interest payments are on a floating rate basis, it is assumed that rates will remain unchanged from the last business day of each year ended 31 December.

The Group has $2bn of bank loans that mature in July 2024 which the Group can repay before maturity at face value. Other than that, it is not expected that the cash flows in the maturity profile could occur significantly earlier or at significantly different amounts, with the exception of $2,137m of contingent consideration held within Trade and other payables (see Note 20).

Market risk

Interest rate risk

The Group maintains a Board-approved mix of fixed and floating rate debt and uses underlying debt, interest rate swaps and forward rate agreements to manage this mix.

The majority of surplus cash is currently invested in US dollar liquidity funds and investment-grade fixed income securities.

The interest rate profile of the Group's interest-bearing financial instruments are set out below. In the case of current and non-current financial liabilities, the classification includes the impact of interest rate swaps which convert the debt to floating rate.

	2023			2022			2021		
	Fixed rate $m	**Floating rate $m**	**Total $m**	Fixed rate $m	Floating rate $m	Total $m	Fixed rate $m	Floating rate $m	Total $m
Financial liabilities									
Current	**2,885**	**2,515**	**5,400**	2,476	3,066	5,542	1,232	661	1,893
Non-current	**23,222**	**–**	**23,222**	21,511	2,179	23,690	23,985	4,903	28,888
Total	**26,107**	**2,515**	**28,622**	23,987	5,245	29,232	25,217	5,564	30,781
Financial assets									
Fixed deposits	**–**	**–**	**–**	64	–	64	53	–	53
Cash collateral pledged to counterparties	**–**	**102**	**102**	–	162	162	–	–	–
Cash and cash equivalents	**–**	**5,840**	**5,840**	250	5,916	6,166	–	6,329	6,329
Total	**–**	**5,942**	**5,942**	314	6,078	6,392	53	6,329	6,382

In addition to the financial assets above, there are $11,288m (2022: $9,546m; 2021: $8,765m) of other current and non-current asset investments and other financial assets.

The Group is also exposed to market risk on other investments.

	2023 $m	2022 $m	2021 $m
Equity securities at fair value through Other comprehensive income (Note 12)	**1,530**	1,056	1,168
Non-current fixed income securities at fair value through profit or loss (Note 12)	**–**	10	–
Total	**1,530**	1,066	1,168

Foreign currency risk

The US dollar is the Group's most significant currency. As a consequence, the Group results are presented in US dollars and exposures are managed against US dollars accordingly.

Translational

Approximately 60% of Group external sales in 2023 were denominated in currencies other than the US dollar, while a significant proportion of manufacturing, and research and development costs were denominated in pound sterling and Swedish krona. Surplus cash generated by business units is substantially converted to, and held centrally in, US dollars. As a result, operating profit and total cash flow in US dollars will be affected by movements in exchange rates.

This currency exposure is managed centrally, based on forecast cash flows. The impact of movements in exchange rates is mitigated significantly by the correlations which exist between the major currencies to which the Group is exposed and the US dollar. Monitoring of currency exposures and correlations is undertaken on a regular basis and hedging is subject to pre-execution approval.

As at 31 December 2023, before the impact of derivatives, 2% of interest-bearing loans and borrowings were denominated in pound sterling and 16% were denominated in euros. Where there is non-US dollar debt and an underlying net investment of that amount in the same currency, the Group applies net investment hedging. Exchange differences on the retranslation of debt designated as net investment hedges are recognised in Other comprehensive income to the extent that the hedge is effective. Any ineffectiveness is taken to profit. For details of non-US dollar debt in a designated hedging relationship please see the Hedge accounting section within this Note 28 from page 200.

The Group holds cross-currency swaps to hedge against the impact of fluctuations in foreign exchange rates. Fair value movements on the revaluation of the cross-currency swaps are recognised in Other comprehensive income to the extent that the hedge is effective, with any ineffectiveness taken to profit.

As at 31 December 2023, the Group operates in three countries designated as hyperinflationary, being Argentina, Venezuela and Turkey. The foreign exchange risk of these markets has been assessed and deemed to be immaterial.

Transactional

The Group aims to hedge all its forecasted major transactional currency exposures on working capital balances, which typically extend for up to three months. Where practicable, these are hedged using forward foreign exchange contracts. In addition, external dividend payments in pound sterling to UK shareholders and in Swedish krona to Swedish shareholders are fully hedged from announcement date to payment date. Foreign exchange gains and losses on forward contracts transacted for transactional hedging are taken to profit or to Other comprehensive income if the contract is in a designated cash flow hedge.

28 Financial risk management objectives and policies *continued*

Sensitivity analysis

The sensitivity analysis set out below summarises the sensitivity of the market value of our financial instruments to hypothetical changes in market rates and prices. The range of variables chosen for the sensitivity analysis reflects our view of changes which are reasonably possible over a one-year period. Market values are the present value of future cash flows based on market rates and prices at the valuation date. For long-term debt, an increase in interest rates results in a decline in the fair value of debt.

The sensitivity analysis assumes an instantaneous 100 basis point change in interest rates in all currencies from their levels at 31 December 2023, with all other variables held constant. Based on the composition of our long-term debt portfolio and cash reserves as at 31 December 2023, a 1% increase in interest rates would result in an additional $25m in interest expense on the debt and an additional $58m interest income on the cash reserves. The exchange rate sensitivity analysis assumes an instantaneous 10% change in foreign currency exchange rates from their levels at 31 December 2023, with all other variables held constant. The +10% case assumes a 10% strengthening of the US dollar against all other currencies and the -10% case assumes a 10% weakening of the US dollar.

Each incremental 10% movement in foreign currency exchange rates would have approximately the same effect as the initial 10% detailed in the table below and each incremental 1% change in interest rates would have approximately the same effect as the 1% detailed in the table below.

	Interest rates		Exchange rates	
31 December 2021	+1%	–1%	+10%	–10%
Increase/(decrease) in fair value of financial instruments ($m)	1,978	(2,106)	82	(85)
Impact on profit: gain/(loss) ($m)	–	–	24	(9)
Impact on equity: gain/(loss) ($m)	–	–	58	(76)

	Interest rates		Exchange rates	
31 December 2022	+1%	–1%	+10%	–10%
Increase/(decrease) in fair value of financial instruments ($m)	1,317	(1,490)	81	(89)
Impact on profit: gain/(loss) ($m)	–	–	26	(15)
Impact on equity: gain/(loss) ($m)	–	–	55	(74)

	Interest rates		**Exchange rates**	
31 December 2023	**+1%**	**–1%**	**+10%**	**–10%**
Increase/(decrease) in fair value of financial instruments ($m)	**1,361**	**(1,534)**	**196**	**(212)**
Impact on profit: gain/(loss) ($m)	**–**	**–**	**134**	**(128)**
Impact on equity: gain/(loss) ($m)	**–**	**–**	**62**	**(83)**

Credit risk

The Group is exposed to credit risk on financial assets, such as cash investments, derivative instruments, and Trade and other receivables. The Group was also exposed in its Net asset position to its own credit risk in respect of the 2023 debentures which are accounted for at FVPL. Under IFRS 9, the effect of the losses and gains arising from own credit risk on the fair value of bonds designated at FVPL are recorded in Other comprehensive income.

Financial counterparty credit risk

The majority of the AstraZeneca Group's cash is centralised within the Group treasury entity and is subject to counterparty risk on the principal invested. The level of the Group's cash investments and hence credit risk will depend on the cash flow generated by the Group and the timing of the use of that cash. The credit risk is mitigated through a policy of prioritising security and liquidity over return and, as such, cash is only invested in high credit-quality investments. Counterparty limits are set according to the assessed risk of each counterparty and exposures are monitored against these limits on a regular basis.

The Group's principal financial counterparty credit risks at 31 December 2023 were as follows:

Current assets

	2023 $m	2022 $m	2021 $m
Cash at bank and in hand	**1,325**	1,411	1,461
Money market liquidity funds	**4,425**	4,486	4,772
Other short-term cash equivalents	**90**	269	96
Total Cash and cash equivalents (Note 17)	**5,840**	6,166	6,329
Fixed income securities at fair value through profit or loss (Note 12)	**20**	13	16
Cash collateral pledged to counterparties (Note 12)	**102**	162	–
Fixed deposits (Note 12)	**–**	64	53
Total derivative financial instruments (Note 13)	**116**	87	83
Current assets subject to credit risk	**6,078**	6,492	6,481

Non-current assets

	2023 $m	2022 $m	2021 $m
Derivative financial instruments (Note 13)	**228**	74	102
Non-current assets subject to credit risk	**228**	74	102

The majority of the Group's cash is invested in US dollar AAA-rated money market liquidity funds. The money market liquidity fund portfolios are managed by six external third-party fund managers to maintain an AAA rating. The Group's investments represent no more than 10% of each overall fund value. There were no other significant concentrations of financial credit risk at the reporting date.

All financial derivatives are transacted with commercial banks, in line with standard market practice. The Group has agreements with some bank counterparties whereby the parties agree to post cash collateral, for the benefit of the other, equivalent to the market valuation of the derivative positions above a predetermined threshold. The carrying value of such cash collateral held by the Group at 31 December 2023 was $215m (2022: $89m; 2021: $93m) and the carrying value of such cash collateral posted by the Group at 31 December 2023 was $102m (2022: $162m; 2021: $47m).

The impairment provision for other financial assets at 31 December 2023 was immaterial.

Trade receivables

Trade receivable exposures are managed locally in the operating units where they arise and credit limits are set as deemed appropriate for the customer. The Group is exposed to customers ranging from government-backed agencies and large private wholesalers to privately owned pharmacies, and the underlying local economic and sovereign risks vary throughout the world. Where appropriate, the Group endeavours to minimise risks by the use of trade finance instruments such as letters of credit and insurance. The Group applies the expected credit loss approach to establish an allowance for impairment that represents its estimate of expected losses in respect of Trade receivables.

The Group applies the IFRS 9 simplified approach to measuring expected credit losses which uses a lifetime expected loss allowance to Trade receivables. To measure expected credit losses, Trade receivables have been grouped based on shared credit characteristics and the days past due.

The expected loss rates are based on payment profiles over a period of 36 months before 31 December 2023, 31 December 2022 or 31 December 2021 respectively and the corresponding historical credit losses experienced within this period. The historical loss rates are adjusted to reflect current and forward-looking information on macroeconomic factors affecting the ability of the customer to settle the receivables.

On that basis, the loss allowance was determined as follows:

31 December 2021	Current	0-90 days past due	90-180 days past due	Over 180 days past due	Total
Expected loss rate	0.1%	1.2%	22.6%	11.0%	
Gross carrying amount ($m)	5,617	328	18	91	6,054
Loss allowance ($m)	5	4	4	10	23

31 December 2022	Current	0-90 days past due	90-180 days past due	Over 180 days past due	Total
Expected loss rate	0.03%	0.3%	32.0%	40.6%	
Gross carrying amount ($m)	6,791	331	50	99	7,271
Loss allowance ($m)	2	1	16	40	59

31 December 2023	**Current**	**0-90 days past due**	**90-180 days past due**	**Over 180 days past due**	**Total**
Expected loss rate	**0.01%**	**0.3%**	**0.8%**	**15.0%**	
Gross carrying amount ($m)	**7,709**	**342**	**121**	**280**	**8,452**
Loss allowance ($m)	**1**	**1**	**1**	**42**	**45**

Trade receivables are written off where there is no reasonable expectation of recovery.

Impairment losses on Trade receivables are presented as net impairment losses within Operating profit, any subsequent recoveries are credited against the same line.

In the US, sales to three wholesalers accounted for approximately 80% of US sales (2022: three wholesalers accounted for approximately 73%; 2021: three wholesalers accounted for approximately 94%).

The movements of the Group expected credit losses provision are follows:

	2023 $m	2022 $m	2021 $m
At 1 January	**59**	23	23
Net movement recognised in income statement	**(14)**	37	(2)
Amounts utilised, exchange and other movements	**–**	(1)	2
At 31 December	**45**	59	23

Given the profile of our customers, including large wholesalers and government-backed agencies, no further credit risk has been identified with the Trade receivables not past due other than those balances for which an allowance has been made. The income statement credit or charge is recorded in Operating profit.

28 Financial risk management objectives and policies *continued*

Hedge accounting

The Group uses foreign currency borrowings, foreign currency forwards and swaps, currency options, interest rate swaps and cross-currency interest rate swaps for the purpose of hedging its foreign currency and interest rate risks. The Group may designate certain financial instruments as fair value hedges, cash flow hedges or net investment hedges in accordance with IFRS 9. Hedge effectiveness is determined at the inception of the hedge relationship, and through periodic prospective effectiveness assessments to ensure that an economic relationship exists between the hedged item and hedging instrument. Sources of hedge effectiveness will depend on the hedge relationship designation but may include:

- a significant change in the credit risk of either party to the hedging relationship
- a timing mismatch between the hedging instrument and the hedged item
- movements in foreign currency basis spread for derivatives in a fair value hedge
- a significant change in the value of the foreign currency-denominated net assets of the Group in a net investment hedge.

The hedge ratio for each designation will be established by comparing the quantity of the hedging instrument and the quantity of the hedged item to determine their relative weighting; for all of the Group's existing hedge relationships the hedge ratio has been determined as 1:1. Designated hedges are expected to be effective and therefore the impact of ineffectiveness on profit is not expected to be material. The accounting treatment for fair value hedges and debt designated as FVPL is disclosed in the Group Accounting Policies section from page 152.

The following table represents the Group's continuing designated hedge relationships under IFRS 9.

2021

			Other comprehensive income						
	Nominal amounts in local currency	Carrying value $m	Opening balance 1 January 2021 $m	Fair value (gain)/loss deferred to OCI $m	Fair value loss recycled to the Income statement $m	Closing balance 31 December 2021 $m	Average maturity year	Average USD FX rate	Average pay interest rate
Cash flow hedges – foreign currency and interest rate risk[1, 3, 4]									
Cross currency interest rate swaps – Euro bonds	EUR 1,700m	(43)	46	182	(201)	27	2026	1.14	USD 2.85%
FX Forwards – short-term FX risk	USD 1,220m	12	(5)	–	(7)	(12)	2022	–	–
Net investment hedge – foreign exchange risk[2, 3]									
Transactions matured pre-2021		–	(565)	–	–	(565)	–	–	–
Cross currency interest rate swap – JPY investment	JPY 58.3bn	62	(19)	(43)	–	(62)	2029	108.03	JPY 1.53%
Cross currency interest rate swap – CNY investment	CNY 458m	(2)	2	–	–	2	2026	6.68	CNY 4.80%
Foreign currency borrowing – GBP investment	GBP 350m	470	(233)	(5)	–	(238)	2031	n/a	GBP 5.75%
Foreign currency borrowing – EUR investment[5]	EUR 450m	–	85	(47)	–	38	2021	n/a	EUR 0.88%
Foreign currency borrowing – EUR investment[6]	EUR 800m	898	–	(50)	–	(50)	2029	n/a	EUR 0.38%
Contingent consideration liabilities and Acerta Pharma share purchase liability – AZUK and AZAB USD investments	USD 2,658m	(2,658)	1,411	421	–	1,832	–	–	–

2022

			Other comprehensive income						
	Nominal amounts in local currency	Carrying value $m	Opening balance 1 January 2022 $m	Fair value (gain)/loss deferred to OCI $m	Fair value (gain)/loss recycled to the Income statement $m	Closing balance 31 December 2022 $m	Average maturity year	Average USD FX rate	Average pay interest rate
Cash flow hedges – foreign currency and interest rate risk[1, 3, 4]									
Cross currency interest rate swaps – Euro bonds	EUR 1,700m	(160)	27	118	(111)	34	2026	1.14	USD 2.85%
FX Forwards – short-term FX risk	USD 1,126m	(12)	(12)	(14)	38	12	2023	–	–
Net investment hedge – foreign exchange risk[2, 3]									
Transactions matured pre-2022		–	(527)	–	–	(527)	–	–	–
Cross currency interest rate swap – JPY investment	JPY 58.3bn	55	(62)	7	–	(55)	2029	108.03	JPY 1.53%
Cross currency interest rate swap – CNY investment	CNY 458m	(4)	2	2	–	4	2026	6.68	CNY 4.80%
Foreign currency borrowing – GBP investment	GBP 350m	420	(238)	(50)	–	(288)	2031	n/a	GBP 5.75%
Foreign currency borrowing – EUR investment[6]	EUR 800m	846	(50)	(52)	–	(102)	2029	n/a	EUR 0.38%
Contingent consideration liabilities and Acerta Pharma share purchase liability – AZUK and AZAB USD investments	USD 2,093m	(2,093)	1,832	384	–	2,216	–	–	–

2023

	Nominal amounts in local currency	Carrying value $m	Other comprehensive income: Opening balance 1 January 2023 $m	Other comprehensive income: Fair value (gain)/loss deferred to OCI $m	Other comprehensive income: Fair value (gain)/loss recycled to the Income statement $m	Other comprehensive income: Closing balance 31 December 2023 $m	Average maturity year	Average USD FX rate	Average pay interest rate
Cash flow hedges – foreign currency and interest rate risk[2, 4, 5]									
Cross currency interest rate swaps – Euro bonds	**EUR 3,200m**	**49**	**34**	**(210)**	**139**	**(37)**	**2027**	**1.10**	**USD 3.80%**
FX Forwards – short-term FX risk	**USD 2,009m**	**15**	**12**	**(33)**	**6**	**(15)**	**2024**	**–**	**–**
Net investment hedge – foreign exchange risk[3, 4]									
Transactions matured pre-2023		**–**	**(527)**	**–**	**–**	**(527)**	**–**	**–**	**–**
Cross currency interest rate swap – JPY investment	**JPY 58.3bn**	**100**	**(55)**	**(45)**	**–**	**(100)**	**2029**	**108.03**	**JPY 1.53%**
Cross currency interest rate swap – CNY investment	**CNY 458m**	**(1)**	**4**	**(3)**	**–**	**1**	**2026**	**6.68**	**CNY 4.80%**
Foreign currency borrowing – GBP investment	**GBP 350m**	**444**	**(288)**	**24**	**–**	**(264)**	**2031**	**n/a**	**GBP 5.75%**
Foreign currency borrowing – EUR investment[7]	**EUR 800m**	**881**	**(102)**	**33**	**–**	**(69)**	**2029**	**n/a**	**EUR 0.38%**
Contingent consideration liabilities and Acerta Pharma share purchase liability – AZUK and AZAB USD investments	**USD 1,937m**	**(1,937)**	**2,216**	**(81)**	**–**	**2,135**	**–**	**–**	**–**

[1] Swaps designated in a fair value hedge matured on 24 November 2021 and hedge ineffectiveness during 2023 was $nil (2022: $nil; 2021: $nil).
[2] Hedge ineffectiveness recognised on swaps designated in a cash flow hedge during the period was $nil (2022: $nil; 2021: $nil).
[3] Hedge ineffectiveness recognised on swaps designated in a net investment hedge during the period was $nil (2022: $nil; 2021: $nil).
[4] Fair value movements on cross-currency interest rate swaps in cash flow hedge and net investment hedge relationships are shown inclusive of the impact of costs of hedging.
[5] Nominal amount of FX forwards in a cash flow hedge of $2,009m represents the USD equivalent notional of the FX forwards. By currency, the nominal amounts were SEK 9,778m at FX rate 9.9869, JPY 24,351m at 141.4050, GBP 428m at 0.7844 and EUR 228m at 0.9036. All FX forwards in a cash flow hedge mature on 25 January 2024.
[6] The EUR 450m NIH matured in November 2021, when the hedging instrument, a EUR bond matured.
[7] On 3 June 2021, upon issuance of the EUR 800m 0.375% 2029 Non-callable bond, EUR 550m was designated in a net investment hedge of the foreign currency exposure in relation of an equivalent amount of EUR-denominated net assets. The remaining EUR 250m was subsequently designated in a net investment hedge upon maturity of the EUR 450m bond on 24 November 2021.

Key controls applied to transactions in derivative financial instruments are to use only instruments where good market liquidity exists, to revalue all financial instruments regularly using current market rates and to sell options only to offset previously purchased options or as part of a risk management strategy. The Group is not a net seller of options, and does not use derivative financial instruments for speculative purposes. The Group held no options during the reporting period.

29 Employee costs and share plans for employees

Employee costs

The monthly average number of people, to the nearest hundred, employed by the Group is set out in the table below. In accordance with the Companies Act 2006, this includes part-time employees.

	2023	2022	2021
Employees			
UK	**10,700**	9,800	8,900
Rest of Europe	**23,000**	20,600	18,300
The Americas	**22,400**	20,900	18,800
Asia, Africa & Australasia	**30,300**	30,700	33,600
Continuing operations	**86,400**	82,000	79,600

Geographical distribution described in the table above is by location of legal entity employing staff. Certain staff will undertake some or all of their activity in a different location.

The number of people employed by the Group at the end of 2023 was 89,900 (2022: 83,500; 2021: 83,100).

The costs incurred during the year in respect of these employees were:

	2023 $m	2022 $m	2021 $m
Wages and salaries	**9,341**	8,656	7,633
Social security costs	**1,100**	991	886
Pension costs	**537**	546	564
Other employment costs	**1,357**	1,338	1,192
Total	**12,335**	11,531	10,275

Severance costs of $123m are not included above (2022: $227m; 2021: $238m).

The charge for share-based payments in respect of share plans is $579m (2022: $619m; 2021: $615m). Payments made to the Employee Benefit Trust upon vesting of share awards are recognised within operating cash flows, reflecting the substance of the arrangement in place between the Group and the Trust. The plans are equity settled.

The Directors believe that, together with the basic salary system, the Group's employee incentive schemes provide competitive and market-related packages to motivate employees. They should also align the interests of employees with those of shareholders, as a whole, through long-term share ownership in the Company. The Group's current US, UK and Swedish schemes are described below; other arrangements apply elsewhere.

29 Employee costs and share plans for employees *continued*

Bonus and share plans

US

In the US, there are two employee short-term performance bonus plans in operation to differentiate and reward strong individual performance. Performance bonuses are paid in cash. The AstraZeneca Performance Share Plan and the AstraZeneca Global Restricted Share Plan operate in respect of relevant employees in the US. AstraZeneca ADRs necessary to satisfy the awards are purchased on the market or funded via a trust.

UK

The AstraZeneca UK Performance Bonus Plan

Employees of participating AstraZeneca UK companies are invited to participate in this bonus plan, which rewards strong individual performance. Bonuses are paid in cash.

The AstraZeneca UK All-Employee Share Plan

The Company offers UK employees the opportunity to buy Partnership Shares (Ordinary Shares). Employees may invest up to £150 a month to purchase Partnership Shares in the Company at the current market value. In 2010, the Company introduced a Matching Share element, the first award of which was made in 2011. Currently one Matching Share is awarded for every four Partnership Shares purchased. Partnership Shares and Matching Shares are held in the HM Revenue & Customs (HMRC)-approved All-Employee Share Plan. At the Company's AGM in 2002, shareholders approved the issue of new shares for the purposes of the All-Employee Share Plan.

Sweden

In Sweden, an all-employee performance bonus plan is in operation, which rewards strong individual performance. Bonuses are paid 50% into a fund investing in AstraZeneca equities and 50% in cash. The AstraZeneca Executive Annual Bonus Scheme, the AstraZeneca Performance Share Plan and the AstraZeneca Global Restricted Stock Plan all operate in respect of relevant AstraZeneca employees in Sweden.

Other bonus and share plans that operate across the Group are described below.

The AstraZeneca Executive Annual Bonus Scheme

This scheme is a performance bonus scheme for Directors and senior employees who do not participate in the AstraZeneca UK Performance Bonus Plan. Annual bonuses are paid in cash and reflect both corporate and individual performance measures. The Remuneration Committee has discretion to reduce or withhold bonuses if business performance falls sufficiently short of expectations in any year such as to make the payment of bonuses inappropriate.

The AstraZeneca Deferred Bonus Plan

This plan was introduced in 2006 and is used to defer a portion of the bonus earned under the AstraZeneca Executive Annual Bonus Scheme into Ordinary Shares in the Company for a period of three years. The plan currently operates only in respect of Executive Directors and members of the SET (with awards granted as AstraZeneca ADRs for members of SET employed within the US). Awards of shares under this plan are typically made in March each year, the first award having been made in February 2006.

The AstraZeneca Performance Share Plan

This plan was approved by shareholders in 2020 for a period of 10 years (subsequently amended by approval of shareholders in 2021) and replaces the 2014 AstraZeneca Performance Share Plan. Generally, awards can be granted at any time, but not during a closed period of the Company. The first grant of Performance Share Plan awards was made in May 2014 under the 2014 AstraZeneca Performance Share Plan. Awards granted under the plan vest after three years, or in the case of Executive Directors and members of the SET, after an additional two-year holding period, and is subject to the achievement of performance conditions. For awards granted to all participants in 2023, vesting is subject to a combination of measures focused on science and innovation, revenue growth, financial performance and carbon reduction. The Remuneration Committee has responsibility for agreeing any awards under the plan and for setting the policy for the way in which the plan should be operated, including agreeing performance targets and which employees should be eligible to participate.

The AstraZeneca Investment Plan

This plan was introduced in 2010 and approved by shareholders at the 2010 AGM. The final grant of awards under this plan took place in March 2016. Awards granted under the plan vest after eight years and are subject to performance conditions measured over a period of four years.

The AstraZeneca Global Restricted Stock Plan

The Global Restricted Stock Plan (GRSP) was introduced in 2010. This plan provides for the grant of restricted stock unit (RSU) awards to selected below SET-level employees and is used in conjunction with the AstraZeneca Performance Share Plan to provide a mix of RSUs and performance share units (PSUs). Awards typically vest on the third anniversary of the date of grant and are contingent on continued employment with the Company. The Remuneration Committee has responsibility for agreeing any awards under the plan and for setting the policy for the way in which the plan should be operated.

The AstraZeneca Restricted Share Plan

This plan was introduced in 2008 and provides for the grant of restricted share unit (RSU) awards to key employees, excluding Executive Directors. Awards are made on an ad hoc basis with variable vesting dates. The plan has been used five times in 2023 to make awards to 305 employees. The Remuneration Committee has responsibility for agreeing any awards under the plan and for setting the policy for the way in which the plan should be operated.

The AstraZeneca Extended Incentive Plan

This plan was introduced in 2018 and provides for the grant of awards to key employees, excluding Executive Directors. Awards are made on an ad hoc basis and 50% of the award will normally vest on the fifth anniversary of grant, with the balance vesting on the tenth anniversary of grant. The award can be subject to the achievement of performance conditions. The Remuneration Committee has responsibility for agreeing any awards under the plan and for setting the policy for the way in which the plan should be operated, including agreeing performance targets (if any) and which employees should be invited to participate.

Details of share options outstanding during the year for the main share plans are shown below.

	The AstraZeneca Performance Share Plan		The AstraZeneca Global Restricted Stock Plan		The AstraZeneca Restricted Share Plan		The AstraZeneca Extended Incentive Plan	
	Ordinary Shares '000	ADR Shares '000	Ordinary Shares '000	ADR Shares[1] '000	Ordinary Shares '000	ADR Shares '000	Ordinary Shares '000	ADR Shares '000
Outstanding at 1 January 2021	3,045	4,791	1,626	9,175	161	506	300	65
Granted	1,275	2,082	902	4,509	139	481	–	175
Forfeited	(220)	(494)	(158)	(1,254)	(18)	(42)	(18)	(45)
Cancelled	(9)	–	(1)	(8)	–	–	–	–
Exercised	(632)	(1,201)	(341)	(2,881)	(27)	(182)	–	–
Outstanding at 31 December 2021	3,459	5,178	2,028	9,541	255	763	282	195
Granted	1,059	2,339	1,237	6,478	75	216	–	–
Forfeited	(132)	(570)	(190)	(1,627)	(25)	(136)	(23)	–
Cancelled	–	–	–	(3)	–	–	–	–
Exercised	(756)	(1,223)	(606)	(2,706)	(72)	(165)	–	–
Outstanding at 31 December 2022	3,630	5,724	2,469	11,683	233	678	259	195
Granted	**976**	**2,071**	**1,185**	**6,343**	**208**	**436**	**71**	**95**
Forfeited	**(148)**	**(437)**	**(187)**	**(1,417)**	**(20)**	**(59)**	**(8)**	**–**
Cancelled	**–**	**–**	**–**	**(3)**	**–**	**–**	**–**	**(34)**
Exercised	**(813)**	**(1,470)**	**(570)**	**(2,738)**	**(86)**	**(288)**	**(107)**	**(9)**
Outstanding at 31 December 2023	**3,645**	**5,888**	**2,897**	**13,868**	**335**	**767**	**215**	**247**

[1] Shares issued to Alexion employees under the GRSP are covered under the Alexion employee share award below.

	The AstraZeneca Performance Share Plan		The AstraZeneca Global Restricted Stock Plan		The AstraZeneca Restricted Share Plan		The AstraZeneca Extended Incentive Plan	
	WAFV[1] pence	WAFV $	WAFV pence	WAFV $	WAFV pence	WAFV $	WAFV pence	WAFV $
WAFV of 2021 grants	6012	41.56	6893	47.75	7415	53.96	–	56.83
WAFV of 2022 grants	8328	55.73	9167	61.21	9894	63.35	–	–
WAFV of 2023 grants	**9929**	**59.95**	**10822**	**65.38**	**11135**	**65.37**	**11748**	**74.78**

[1] Weighted average fair value.

Alexion employee share award plan

At acquisition in 2021 Alexion employee share awards were converted into AstraZeneca restricted stock awards that continue to have, and shall be subject to, the same terms and conditions as applied in the corresponding Alexion awards immediately prior to completion. The fair value at the grant date was $57.54 and of the 15,220,000 shares outstanding at 31 December 2021, 8,627,000 were exercised and 980,000 were forfeited during 2022. During 2022, Alexion employees had the option to defer awards due to vest in July 2022 until February 2023 when they would also receive an additional vest equivalent to 15% of the shares deferred. As a result, 1,780,000 shares were deferred, resulting in an additional 267,000 shares being issued with a grant date fair value of $65.62, that vested in 2023. During 2023, 2,060,000 shares vested, 531,000 were forfeited/cancelled and the closing balance of these awards as of 31 December 2023 was 3,022,000.

The weighted average fair value for awards granted under the AstraZeneca Performance Share Plan is primarily based on the market price at the point of grant adjusted for the market-based performance elements which are valued using a modified version of the Monte Carlo method. The fair values of all other plans are set using the market price at the point of award. These awards are settled in equity including dividends accumulated from the date of award to vesting.

30 Commitments, contingent liabilities and contingent assets

Commitments	**2023 $m**	2022 $m	2021 $m
Contracts placed for future capital expenditure on Property, plant and equipment and software development costs not provided for in these financial statements	**1,368**	502	388

Guarantees and contingencies arising in the ordinary course of business, for which no security has been given, are not expected to result in any material financial loss.

Research and development collaboration payments

The Group has various ongoing collaborations, including in-licensing and similar arrangements with development partners. Such collaborations may require the Group to make payments on achievement of stages of development, launch or revenue milestones, although the Group generally has the right to terminate these agreements at no cost. The Group recognises research and development milestones as an intangible asset once it is committed to payment, which is generally when the Group reaches set trigger points in the development cycle. Revenue-related milestones are recognised as intangible assets on product launch at a value based on the Group's long-term revenue forecasts for the related product. The table below indicates potential development and revenue-related payments that the Group may be required to make under such collaborations.

	Total $m	Under 1 year $m	Years 1 and 2 $m	Years 3 and 4 $m	Years 5 and greater $m
Future potential research and development milestone payments	**10,971**	**1,256**	**3,798**	**1,764**	**4,153**
Future potential revenue milestone payments	**20,195**	**43**	**491**	**2,400**	**17,261**

The table includes all potential payments for achievement of milestones under ongoing research and development arrangements. Revenue-related milestone payments represent the maximum possible amount payable on achievement of specified levels of revenue as set out in individual contract agreements, but exclude variable payments that are based on unit sales (e.g. royalty-type payments) which are expensed as the associated sale is recognised. The table excludes any payments already capitalised in the Financial Statements for the year ended 31 December 2023 which have been capitalised with reference to the latest Group sales forecasts for approved indications.

The future payments we disclose represent contracted payments and, as such, are not discounted and are not risk-adjusted. As detailed in the Risk section from page 54, the development of any pharmaceutical product candidate is a complex and risky process that may fail at any stage in the development process due to a number of factors (including items such as failure to obtain regulatory approval, unfavourable data from key studies, adverse reactions to the product candidate or indications of other safety concerns). The timing of the payments is based on the Group's current best estimate of achievement of the relevant milestone.

Environmental costs and liabilities

The Group's expenditure on environmental protection, including both capital and revenue items, relates to costs that are necessary for implementing internal systems and programmes, and meeting legal and regulatory requirements for processes and products. This includes investment to conserve natural resources and otherwise minimise the impact of our activities on the environment.

They are an integral part of normal ongoing expenditure for carrying out the Group's research, manufacturing and commercial operations and are not separated from overall operating and development costs. There are no known changes in legal, regulatory or other requirements resulting in material changes to the levels of expenditure for 2021, 2022 or 2023.

In addition to expenditure for meeting current and foreseen environmental protection requirements, the Group incurs costs in investigating and cleaning up legacy land and groundwater contamination. In particular, AstraZeneca has environmental liabilities at some currently or formerly owned, leased and third-party sites.

In the US, Zeneca Inc., and/or its indemnitees, have been named as potentially responsible parties (PRPs) or defendants at a number of sites where Zeneca Inc. is likely to incur future environmental investigation, remediation, operation and maintenance costs under federal, state, statutory or common law environmental liability allocation schemes (together, US Environmental Consequences). Similarly, Stauffer Management Company LLC (SMC), which was established in 1987 to own and manage certain assets of Stauffer Chemical Company acquired that year, and/or its indemnitees, have been named as PRPs or defendants at a number of sites where SMC is likely to incur US Environmental Consequences.

AstraZeneca has also given indemnities to third parties for a number of sites outside the US. These environmental liabilities arise from legacy operations that are not currently part of the Group's business and, at most of these sites, remediation, where required, is either completed or in progress. AstraZeneca has made provisions for the estimated costs of future environmental investigation, remediation, operation and maintenance activity beyond normal ongoing expenditure for maintaining the Group's R&D and manufacturing capacity and product ranges, where a present obligation exists, it is probable that such costs will be incurred and they can be estimated reliably. With respect to such estimated future costs, there were provisions at 31 December 2023 in the aggregate of $112m (2022: $131m; 2021: $90m), mainly relating to the US. Where we are jointly liable or otherwise have cost-sharing agreements with third parties, we reflect only our share of the obligation. Where the liability is insured in part or in whole by insurance or other arrangements for reimbursement, an asset is recognised to the extent that this recovery is virtually certain.

It is possible that AstraZeneca could incur future environmental costs beyond the extent of our current provisions. The extent of such possible additional costs is inherently difficult to estimate due to a number of factors, including: (1) the nature and extent of claims that may be asserted in the future; (2) whether AstraZeneca has or will have any legal obligation with respect to asserted or unasserted claims; (3) the type of remedial action, if any, that may be selected at sites where the remedy is presently not known; (4) the potential for recoveries from or allocation of liability to third parties; and (5) the length of time that the environmental investigation, remediation and liability allocation process can take. As per our accounting policy on page 158, Provisions for these costs are made when there is a present obligation and where it is probable that expenditure on remedial work will be required and a reliable estimate can be made of the cost. Notwithstanding and subject to the foregoing, we estimate the potential additional loss for future environmental investigation, remediation, remedial operation and maintenance activity above and beyond our provisions to be, in aggregate, between $114m and $191m (2022: $113m and $188m; 2021: $99m and $165m) which relates mainly to the US.

Legal proceedings

AstraZeneca is involved in various legal proceedings considered typical to its business, including actual or threatened litigation and actual or potential government investigations relating to employment matters, product liability, commercial disputes, pricing, sales and marketing practices, infringement of IP rights, and the validity of certain patents and competition laws. The more significant matters are discussed below.

Most of the claims involve highly complex issues. Often these issues are subject to substantial uncertainties and, therefore, the probability of a loss, if any, being sustained and/or an estimate of the amount of any loss is difficult to ascertain.

We do not believe that disclosure of the amounts sought by plaintiffs, if known, would be meaningful with respect to these legal proceedings. This is due to a number of factors, including (i) the stage of the proceedings (in many cases trial dates have not been set) and the overall length and extent of pre-trial discovery; (ii) the entitlement of the parties to an action to appeal a decision; (iii) clarity as to theories of liability, damages and governing law; (iv) uncertainties in timing of litigation; and (v) the possible need for further legal proceedings to establish the appropriate amount of damages, if any.

While there can be no assurance regarding the outcome of any of the legal proceedings referred to in this Note 30, based on management's current and considered view of each situation, we do not currently expect them to have a material adverse effect on our financial position including within the next financial year. This position could of course change over time, not least because of the factors referred to above.

In cases that have been settled or adjudicated, or where quantifiable fines and penalties have been assessed and which are not subject to appeal (or other similar forms of relief), or where a loss is probable and we are able to make a reasonable estimate of the loss, we generally indicate the loss absorbed or make a provision for our best estimate of the expected loss.

Where it is considered that the Group is more likely than not to prevail, legal costs involved in defending the claim are charged to profit as they are incurred.

Where it is considered that the Group has a valid contract which provides the right to reimbursement (from insurance or otherwise) of legal costs and/or all or part of any loss incurred or for which a provision has been established, and we consider recovery to be virtually certain, the best estimate of the amount expected to be received is recognised as an asset.

KJ Assessments as to whether or not to recognise provisions or assets, and of the amounts concerned, usually involve a series of complex judgements about future events and can rely heavily on estimates and assumptions. AstraZeneca believes that the provisions recorded are adequate based on currently available information and that the insurance recoveries recorded will be received. However, given the inherent uncertainties involved in assessing the outcomes of these cases, and in estimating the amount of the potential losses and the associated insurance recoveries, we could in the future incur judgments or insurance settlements that could have a material adverse effect on our results in any particular period.

IP claims include challenges to the Group's patents on various products or processes and assertions of non-infringement of patents. A loss in any of these cases could result in loss of patent protection on the related product.

The consequences of any such loss could be a significant decrease in Product Sales, which could have a material adverse effect on our results. The lawsuits filed by AstraZeneca for patent infringement against companies that have filed abbreviated new drug applications (ANDAs) in the US, seeking to market generic forms of products sold by the Group prior to the expiry of the applicable patents covering these products, typically also involve allegations of non-infringement, invalidity and unenforceability of these patents by the ANDA filers. In the event that the Group is unsuccessful in these actions or the statutory 30-month stay expires before a ruling is obtained, the ANDA filers involved will also have the ability, subject to FDA approval, to introduce generic versions of the product concerned.

AstraZeneca has full confidence in, and will vigorously defend and enforce, its IP.

Over the course of the past several years, including in 2023, a significant number of commercial litigation claims in which AstraZeneca is involved have been resolved, particularly in the US, thereby reducing potential contingent liability exposure arising from such litigation. Similarly, in part due to patent litigation and settlement developments, greater certainty has been achieved regarding possible generic entry dates with respect to some of our patented products. At the same time, like other companies in the pharmaceutical sector and other industries, AstraZeneca continues to be subject to government investigations around the world.

Patent litigation

Legal proceedings brought against AstraZeneca for which a provision has been taken

Imfinzi and *Imjudo*

US and ROW patent proceedings

In February 2022, in Japan, Ono Pharmaceuticals filed a lawsuit in Tokyo District Court, Civil Division against AstraZeneca alleging that AstraZeneca's marketing of *Imfinzi* in Japan infringed several of their patents.

In March 2022, Bristol-Myers Squibb Co. and E.R. Squibb & Sons, LLC filed a lawsuit in the US District Court for the District of Delaware (District Court) against AstraZeneca alleging that AstraZeneca's marketing of *Imfinzi* infringed several of their patents. In April 2023, Bristol-Myers Squibb Co., E.R. Squibb & Sons, LLC, Tasuku Honjo, Ono Pharmaceutical Co., Ltd., and the Dana-Farber Cancer Institute Inc. filed a separate lawsuit in the District Court against AstraZeneca alleging that AstraZeneca's marketing of *Imfinzi* infringed another of their patents.

In January 2023, Bristol-Myers Squibb Co. and E.R. Squibb & Sons, LLC filed a lawsuit in the District Court against AstraZeneca alleging that AstraZeneca's marketing of *Imjudo* infringed two of their patents.

In July 2023, AstraZeneca entered into a global settlement agreement with Bristol-Myers Squibb Co., E.R. Squibb & Sons, LLC, and Ono Pharmaceutical Co., Ltd. that resolves all patent disputes between the companies relating to *Imfinzi* and *Imjudo*. In June 2023, a provision was taken totaling $510m.

These matters are now concluded.

Legal proceedings brought against AstraZeneca considered to be contingent liabilities

Enhertu

US patent proceedings

In October 2020, Seagen Inc. (Seagen) filed a complaint against Daiichi Sankyo Company, Limited (Daiichi Sankyo) in the US District Court for the Eastern District of Texas (District Court) alleging that *Enhertu* infringes a Seagen patent. AstraZeneca co-commercialises *Enhertu* with Daiichi Sankyo, Inc. in the US. After trial in April 2022, the jury found that the patent was infringed and awarded Seagen $41.82m in past damages. In July 2022, the District Court entered final judgment and declined to enhance damages on the basis of wilfulness. In October 2023, the District Court entered an amended final judgment that requires Daiichi Sankyo to pay Seagen a royalty of 8% on US sales of *Enhertu* from April 1, 2022, through November 4, 2024, in addition to the past damages previously awarded by the Court. AstraZeneca and Daiichi Sankyo have appealed the District Court's decision.

In December 2020 and January 2021, AstraZeneca and Daiichi Sankyo, Inc. filed post-grant review (PGR) petitions with the US Patent and Trademark Office (USPTO) alleging, inter alia, that the Seagen patent is invalid for lack of written description and enablement. The USPTO initially declined to institute the PGRs, but, in April 2022, the USPTO granted the rehearing requests, instituting both PGR petitions. Seagen subsequently disclaimed all patent claims at issue in one of the PGR proceedings. In July 2022, the USPTO reversed its institution decision and declined to institute the other PGR petition. AstraZeneca and Daiichi Sankyo, Inc. requested reconsideration of the decision not to institute review of the patent.

30 Commitments, contingent liabilities and contingent assets *continued*

In February 2023, the USPTO reinstituted the PGR proceeding. An oral hearing took place in August 2023. In January 2024, the USPTO issued a decision that Seagen's patent is unpatentable, invalidating all claims asserted against *Enhertu*. The USPTO's decision does not overturn the Texas District Court's decision unless and until the USPTO's decision is affirmed on appeal by the US Court of Appeals for the Federal Circuit. No such appeal has been filed.

Faslodex

Patent proceedings outside the US

In 2021 in Japan, AstraZeneca received notice from the Japan Patent Office (JPO) that Sandoz K.K. (Sandoz) and Sun Pharma Japan Ltd. (Sun) were seeking to invalidate the *Faslodex* formulation patent. AstraZeneca defended the challenged patent, and Sun withdrew from the JPO patent challenge. In July 2023, the JPO issued a final decision upholding various claims of the challenged patent and determining that other patent claims were invalid. In August 2023, Sandoz appealed the JPO decision to the Japan IP High Court.

Tagrisso

US patent proceedings

In September 2021, Puma Biotechnology, Inc. and Wyeth LLC filed a patent infringement lawsuit in the US District Court for the District of Delaware against AstraZeneca relating to *Tagrisso*. Trial has been scheduled for May 2024.

Legal proceedings brought by AstraZeneca considered to be contingent assets

Brilinta

US patent proceedings

In 2015 and subsequently, in response to Paragraph IV notices from ANDA filers, AstraZeneca filed patent infringement lawsuits in the US District Court for the District of Delaware (District Court) relating to patents listed in the FDA Orange Book with reference to *Brilinta*. In 2022, AstraZeneca entered into several separate settlements and the District Court entered consent judgments to dismiss each of the corresponding litigations. Additional proceedings are ongoing in the District Court. No trial date has been set.

Calquence

US patent proceedings

In February 2022, in response to Paragraph IV notices from multiple ANDA filers, AstraZeneca filed patent infringement lawsuits in the US District Court for the District of Delaware. In its complaint, AstraZeneca alleges that a generic version of *Calquence*, if approved and marketed, would infringe patents listed in the FDA Orange Book with reference to *Calquence* that are owned or licensed by AstraZeneca. Trial has been scheduled for March 2025.

In February 2023, Sandoz Inc. filed a petition for inter partes review with the US Patent and Trademark Office of certain *Calquence* patent claims. AstraZeneca has asserted claims for patent infringement against Sandoz and other defendants in the US ANDA litigation. In August 2023, the US Patent Trial and Appeal Board issued a decision denying institution of inter partes review.

Daliresp

US patent proceedings

In 2015 and subsequently, in response to Paragraph IV notices from ANDA filers, AstraZeneca filed patent infringement lawsuits in the US District Court for the District of New Jersey (District Court) relating to patents listed in the FDA Orange Book with reference to *Daliresp*. In 2022, AstraZeneca entered into a settlement agreement and the District Court entered a consent judgment to dismiss the corresponding litigation. Additional ANDA challenges are pending.

Farxiga

US patent proceedings

In May 2021, AstraZeneca proceeded to trial against ANDA filer Zydus Pharmaceuticals (USA) Inc. (Zydus) in the US District Court for the District of Delaware (District Court). In October 2021, the District Court issued a decision finding the asserted claims of AstraZeneca's patent as valid and infringed by Zydus's ANDA product. In August 2022, Zydus appealed the District Court decision. Zydus's appeal has been dismissed.

In December 2023, AstraZeneca initiated ANDA litigation against Sun Pharmaceutical Industries Ltd. and Sun Pharmaceutical Industries, Inc. in the District Court. No trial date has been set.

Lokelma

US patent proceedings

In August 2022, in response to Paragraph IV notices, AstraZeneca initiated ANDA litigation against multiple generic filers in the US District Court for the District of Delaware. Trial has been scheduled for March 2025.

Lynparza

US patent proceedings

In December 2022, AstraZeneca received a Paragraph IV notice from an ANDA filer relating to patents listed in the FDA Orange Book with reference to *Lynparza*. In February 2023, in response to the Paragraph IV notice, AstraZeneca, MSD International Business GmbH, and the University of Sheffield initiated ANDA litigation against Natco Pharma Limited (Natco) in the US District Court for the District of New Jersey. In the complaint, AstraZeneca alleged that Natco's generic version of *Lynparza*, if approved and marketed, would infringe patents listed in the FDA Orange Book with reference to *Lynparza*. No trial date has been scheduled.

In December 2023, AstraZeneca received a Paragraph IV notice from an ANDA filer relating to patents listed in the FDA Orange Book with reference to *Lynparza*. In February 2024, in response to the Paragraph IV notice, AstraZeneca, MSD International Business GmbH, and the University of Sheffield initiated ANDA litigation against Sandoz Inc. (Sandoz) in the US District Court for the District of New Jersey. In the complaint, AstraZeneca alleged that Sandoz's generic version of *Lynparza*, if approved and marketed, would infringe patents listed in the FDA Orange Book with reference to *Lynparza*. No trial date has been scheduled.

Soliris

US patent proceedings

In January 2024, Alexion initiated patent infringement litigation against Samsung Bioepis Co. Ltd. in the US District Court for the District of Delaware alleging that Samsung's biosimilar eculizumab product, for which Samsung is currently seeking FDA approval, will infringe six *Soliris*-related patents. No trial date has been scheduled. Five of the six asserted patents are also the subject of inter partes review proceedings before the US Patent and Trademark Office.

Tagrisso

Patent proceedings outside the US

In Russia, in August 2023, AstraZeneca filed lawsuits in the Arbitration Court of the Moscow Region (Court) against the Ministry of Health of the Russian Federation and Axelpharm LLC related to Axelpharm's improper use of AstraZeneca's information to obtain authorisation to market a generic version of *Tagrisso*. In December 2023, the Court dismissed the lawsuit against the Ministry of Health of the Russian Federation. In January 2024, AstraZeneca filed an appeal, which is pending. The lawsuit against Axelpharm remains pending before the Court.

In Russia, in November 2023, Axelpharm LLC filed a compulsory licensing action against AstraZeneca in the Arbitration Court of the Moscow Region (Court) related to a patent that covers *Tagrisso*. The lawsuit remains pending before the Court.

Legal proceedings brought against AstraZeneca which have been concluded

Movantik

US patent proceedings

AstraZeneca has resolved by settlement agreement the previously disclosed patent infringement lawsuit brought by Aether Therapeutics, Inc. in the US District Court for the District of Delaware against AstraZeneca, Nektar Therapeutics and Daiichi Sankyo, Inc., relating to *Movantik*. This matter is now concluded.

Legal proceedings brought by AstraZeneca which have been concluded

Symbicort

US patent proceedings

In February 2023, AstraZeneca resolved by settlement agreement the previously disclosed ANDA litigations with Mylan Pharmaceuticals Inc. and Kindeva Drug Delivery L.P. (together, defendants). In those actions, AstraZeneca alleged that the defendants' generic versions of *Symbicort*,

if approved and marketed, would infringe various AstraZeneca patents. This matter is now concluded.

Tagrisso

Patent proceedings outside the US

In Russia, in October 2021, AstraZeneca filed a lawsuit in the Arbitration Court of the Moscow Region (Court) against Axelpharm, LLC to prevent it from obtaining authorisation to market a generic version of *Tagrisso* prior to the expiration of AstraZeneca's patents covering *Tagrisso*. The lawsuit also names the Ministry of Health of the Russian Federation as a third party. In March 2022, the Court dismissed the lawsuit. In June 2022, the dismissal was affirmed on appeal. In January 2023, the dismissal was affirmed on further appeal. This matter is now concluded.

Product liability litigation

Legal proceedings brought against AstraZeneca for which a provision has been taken

Nexium and *Losec/Prilosec*

US proceedings

AstraZeneca has been defending lawsuits brought in federal and state courts involving claims that plaintiffs have been diagnosed with various injuries following treatment with proton pump inhibitors (PPIs), including *Nexium* and *Prilosec*. Most of the lawsuits alleged kidney injury. In August 2017, the pending federal court cases were consolidated in a multidistrict litigation (MDL) proceeding in the US District Court for the District of New Jersey for pre-trial purposes. In addition to the MDL cases, there were cases alleging kidney injury filed in Delaware and New Jersey state courts.

In addition, AstraZeneca has been defending lawsuits involving allegations of gastric cancer following treatment with PPIs, including one such claim in the US District Court for the Middle District of Louisiana (Louisiana District Court).

In October 2023, AstraZeneca resolved all pending claims in the MDL, as well as all pending claims in Delaware and New Jersey state courts, for $425m, for which a provision has been taken. The only remaining case is the one pending in the Louisiana District Court. The Court in that case has postponed trial, which was previously scheduled to begin in April 2024. No new trial date has been set.

Legal proceedings brought against AstraZeneca considered to be contingent liabilities

Farxiga and *Xigduo* XR

US proceedings

AstraZeneca has been named as a defendant in lawsuits involving plaintiffs claiming physical injury, including Fournier's Gangrene and necrotising fasciitis, from treatment with *Farxiga* and/or *Xigduo* XR. In September 2023, the parties resolved by settlement agreement one case, filed in state court in Minnesota, previously scheduled for trial in October 2023. All remaining claims are filed in Delaware state court and remain pending.

Nexium and *Losec/Prilosec*

Canada proceedings

In Canada, in July and August 2017, AstraZeneca was served with three putative class action lawsuits. Two of the lawsuits have been dismissed, one in 2019 and one in 2021. The third lawsuit seeks authorisation to represent individual residents in Canada who allegedly suffered kidney injuries from the use of proton pump inhibitors, including *Nexium* and *Losec*.

Onglyza and *Kombiglyze*

US proceedings

In the US, AstraZeneca is defending various lawsuits alleging heart failure, cardiac injuries, and/or death from treatment with *Onglyza* or *Kombiglyze*. In August 2022, the US District Court for the Eastern District of Kentucky, presiding over the consolidated federal cases, granted AstraZeneca's motion for summary judgment, which plaintiffs have appealed to the US Court of Appeals for the Sixth Circuit. In the California state court proceeding, the trial court granted summary judgment for AstraZeneca, which the California appellate court affirmed. The California Supreme Court has declined further review, so the California state court proceeding has concluded.

Commercial litigation

Legal proceedings brought against AstraZeneca considered to be contingent liabilities

340B Antitrust Litigation

US proceedings

In September 2021, AstraZeneca was served with a class-action antitrust complaint filed in the US District Court for the Western District of New York (District Court) by Mosaic Health alleging a conspiracy to restrict access to 340B discounts in the diabetes market through contract pharmacies. In September 2022, the District Court granted AstraZeneca's motion to dismiss the Complaint. In February 2024, the District Court denied Plaintiffs' request to file a new amended complaint and entered an order closing the matter.

Anti-Terrorism Act Civil Lawsuit

US proceedings

In the US, in October 2017, AstraZeneca and certain other pharmaceutical and/or medical device companies were named as defendants in a complaint filed in the US District Court for the District of Columbia (District Court) by US nationals (or their estates, survivors, or heirs) who were killed or wounded in Iraq between 2005 and 2013. The plaintiffs allege that the defendants violated the US Anti-Terrorism Act and various state laws by selling pharmaceuticals and medical supplies to the Iraqi Ministry of Health. In July 2020, the District Court granted AstraZeneca's and the other defendants' motion to dismiss the lawsuit, which the DC Circuit Court of Appeals (the Appellate Court) reversed in January 2022. In February 2023, the Appellate Court denied a request for en banc review. In June 2023, AstraZeneca and the other defendants filed a petition for review by the United States Supreme Court.

Caelum Trade Secrets Litigation

US proceedings

AstraZeneca has been defending a matter filed by the University of Tennessee Research Foundation in the US District Court for the Eastern District of Tennessee (District Court) related to CAEL-101. In October 2023, AstraZeneca filed a motion for summary judgment on all claims and awaits a decision by the District Court. Trial is currently scheduled for September 2024.

Definiens

Germany proceedings

In Germany, in July 2020, AstraZeneca received a notice of arbitration filed with the German Institution of Arbitration from the sellers of Definiens AG (the Sellers) regarding the 2014 Share Purchase Agreement (SPA) between AstraZeneca and the Sellers. The Sellers claim that they are owed approximately $140m in earn-outs under the SPA. The arbitration hearing took place in March 2023 and final post-hearing written briefs were submitted in June 2023. In December 2023, the arbitration panel made a final award of $46.43m in favour of the Sellers. AstraZeneca is considering its options.

Employment Litigation

US proceedings

In December 2022, AstraZeneca was served with a lawsuit filed by seven former employees in the US District Court for the District of Delaware (District Court) asserting age, religion, and disability discrimination claims related to AstraZeneca's vaccination requirement. In March 2023, AstraZeneca filed a motion to dismiss the religious and disability discrimination claims and a motion to strike the class and collective claims. That motion is fully briefed and the parties are awaiting a decision by the District Court.

Pay Equity Litigation

US proceedings

AstraZeneca was defending a putative class and collective action matter in the US District Court for the Northern District of Illinois (District Court) brought by three named plaintiffs, who are former AstraZeneca employees. The case involved claims under the federal and Illinois Equal Pay Acts, with the plaintiffs alleging they were paid less than male employees who performed substantially similar and/or equal work. In January 2023, the District Court granted AstraZeneca's motion to dismiss plaintiffs' complaint. In March 2023, plaintiffs filed a Second Amended Complaint. AstraZeneca moved to dismiss the Second Amended Complaint in April 2023. The motion to dismiss was denied in October 2023, and the parties are proceeding with discovery.

Seroquel XR (Antitrust Litigation)

US proceedings

In 2019, AstraZeneca was named in several related complaints brought in the US District Court for the Southern District of New York (District Court), including several putative class action lawsuits that were purportedly brought on behalf of classes of direct

30 Commitments, contingent liabilities and contingent assets *continued*

purchasers or end payors of *Seroquel XR*, that allege AstraZeneca and generic drug manufacturers violated US antitrust laws when settling patent litigation related to *Seroquel XR*. In July 2022, in response to AstraZeneca's motion to dismiss, the District Court dismissed all claims relating to the settlement with one of the generic manufacturers but denied the motion with respect to all claims relating to the second generic manufacturer and allowed those claims to proceed. Trial is currently scheduled for May 2025.

Syntimmune

US proceedings

In connection with Alexion's prior acquisition of Syntimmune, Inc., (Syntimmune) in December 2020, Alexion was served with a lawsuit filed by the stockholders' representative for Syntimmune in Delaware state court that alleged, among other things, breaches of contractual obligations relating to the 2018 merger agreement. The stockholders' representative alleges that Alexion failed to meet its obligations under the merger agreement to use commercially reasonable efforts to achieve the milestones. Alexion also filed a claim for breach of the representations in the 2018 merger agreement. A trial was held in July 2023 and a decision is expected in 2024.

Viela Bio, Inc. Shareholder Litigation

US proceedings

In February 2023, AstraZeneca was served with a lawsuit filed in Delaware state court against AstraZeneca and certain officers (collectively, defendants), on behalf of a putative class of Viela Bio, Inc. (Viela) shareholders. The complaint alleges that defendants breached their fiduciary duty to Viela shareholders in the course of Viela's 2021 merger with Horizon Therapeutics, plc. In May 2023, AstraZeneca filed a motion to dismiss, which is now fully briefed and pending before the Court.

Legal proceedings brought by AstraZeneca considered to be contingent assets

PARP Inhibitor Royalty Dispute

UK proceedings

In October 2012, Tesaro, Inc. (now wholly owned by GlaxoSmithKline plc, (GSK)) entered into two worldwide, royalty-bearing patent license agreements with AstraZeneca related to GSK's product niraparib. In May 2021, AstraZeneca filed a lawsuit against GSK in the Commercial Court of England and Wales alleging that GSK has failed to pay all of the royalties due on niraparib sales under the license agreements. The case was transferred to the Chancery Division and a trial took place in March 2023. In April 2023, the court issued a decision in AstraZeneca's favour. GSK has been granted permission to appeal, and the appellate hearing was held in January 2024.

Legal proceedings brought against AstraZeneca which have been concluded

Alexion Shareholder Litigation

US proceedings

In December 2016, putative securities class action lawsuits were filed in the US District Court for the District of Connecticut (District Court) against Alexion and certain officers and directors (collectively, defendants), on behalf of purchasers of Alexion publicly traded securities during the period 30 January 2014 through 26 May 2017. The amended complaint alleged that defendants engaged in securities fraud, including by making misrepresentations and omissions in their public disclosures concerning Alexion's *Soliris* sales practices, management changes, and related investigations. In August 2021, the District Court issued a decision denying in part defendants' motion to dismiss the matter. The Court granted plaintiffs' motion for class certification in April 2023. In August 2023, the parties reached a settlement in principle of this matter. In September 2023, the court granted preliminary approval of the class settlement. A provision was taken in September 2023. The court granted final approval of the class settlement in December 2023, and the matter is now concluded.

AZD1222 Securities Litigation

US proceedings

In January 2021, putative securities class action lawsuits were filed in the US District Court for the Southern District of New York (District Court) against AstraZeneca PLC and certain officers, on behalf of purchasers of AstraZeneca publicly traded securities during a period later amended to cover 15 June 2020 through 29 January 2021. The Amended Complaint alleges that defendants made materially false and misleading statements in connection with the development of AZD1222, AstraZeneca's vaccine for the prevention of COVID-19. In September 2022, the District Court granted AstraZeneca's motion to dismiss the Amended Complaint with prejudice. In May 2023, the US Court of Appeals for the Second Circuit affirmed the dismissal. The matter is now concluded.

Portola Shareholder Litigation

US proceedings

In connection with Alexion's July 2020 acquisition of Portola Pharmaceuticals, Inc. (Portola), Alexion assumed litigation to which Portola is a party. In January 2020, putative securities class action lawsuits were filed in the US District Court for the Northern District of California against Portola and certain officers and directors (collectively, defendants), on behalf of purchasers of Portola publicly traded securities during the period 8 January 2019 through 26 February 2020. The operative complaints alleged that defendants made materially false and/or misleading statements or omissions with regard to *Andexxa*. In June 2022, the parties reached a settlement in principle of this matter. In March 2023, the court granted final approval of the settlement. The matter is now concluded.

Government investigations/proceedings

Legal proceedings brought against AstraZeneca considered to be contingent liabilities

340B Qui Tam

US proceedings

In July 2023, AstraZeneca was served with an unsealed civil lawsuit brought by a qui tam relator on behalf of the United States, several states, and the District of Columbia in the US District Court for the Central District of California. The complaint alleges that AstraZeneca violated the US False Claims Act (FCA) and state-law analogues. In September 2023, AstraZeneca filed a motion to dismiss the relator's claims. In response, the relator filed a First Amended Complaint. In December 2023, AstraZeneca filed a motion to dismiss the First Amended Complaint.

340B Administrative Proceedings

US proceedings

In September 2023, the Arkansas Insurance Department sent AstraZeneca an administrative complaint concerning compliance with Arkansas's 340B Statute, which requires manufacturers to recognize an unlimited number of contract pharmacies.

Previously disclosed Administrative Dispute Resolution proceedings against AstraZeneca remain pending before the US Health Resources and Services Administration.

Brazilian Tax Assessment Matter

Brazil proceedings

In connection with an ongoing matter, in August 2019, the Brazilian Federal Revenue Service provided a Notice of Tax and Description of the Facts (the Tax Assessment) to two Alexion subsidiaries (the Brazil Subsidiaries), as well as to two additional entities – a logistics provider utilised by Alexion and a distributor. The Tax Assessment focuses on the importation of *Soliris* vials pursuant to Alexion's free drug supply to patients programme in Brazil.

Alexion prevailed in the first level of administrative appeals in the Brazilian federal administrative proceeding system based on a deficiency in the Brazil Tax Assessment. The decision was subject to an automatic (ex officio) appeal to the second level of the administrative courts. In March 2023, the second level of the administrative courts issued a decision to remand the matter to the first level of administrative courts for a determination on the merits.

Texas Qui Tam

US proceedings

In December 2022, AstraZeneca was served with an unsealed civil lawsuit brought by qui tam relators on behalf of the State of Texas in Texas state court, which alleges that AstraZeneca engaged in unlawful marketing practices. In March 2023, AstraZeneca filed a motion to dismiss and a motion to transfer venue. In response, relators filed an Amended Petition. In May 2023, AstraZeneca filed a motion to

dismiss the Amended Petition and renewed its motion to transfer venue. In September 2023, the Texas state court denied AstraZeneca's motion to transfer venue and motion to dismiss. Trial is currently scheduled for October 2024.

Turkish Ministry of Health Matter

Turkey proceedings

In Turkey, in July 2020, the Turkish Ministry of Health (Ministry of Health) initiated an investigation regarding payments to healthcare providers by Alexion Turkey and former employees and consultants. The investigation arose from Alexion's disclosure of a $21.5m civil settlement with the US Securities & Exchange Commission (SEC) in July 2020 fully resolving the SEC's investigation into possible violations of the US Foreign Corrupt Practices Act. In September 2021, the Ministry of Health completed its draft investigation report, and referred the matter to the Ankara Public Prosecutor's Office with a recommendation for further proceedings against certain former employees.

US Congressional Inquiry

US proceedings

In January 2024, AstraZeneca received a letter from the US Senate Committee on Health, Education, Labor and Pensions (HELP Committee) seeking information related to AstraZeneca's inhaled Respiratory products. AstraZeneca intends to cooperate with the inquiry.

Vermont US Attorney Investigation

US proceedings

In April 2020, AstraZeneca received a Civil Investigative Demand from the US Attorney's Office in Vermont and the Department of Justice, Civil Division, seeking documents and information relating to AstraZeneca's relationships with electronic health-record vendors. AstraZeneca continues to cooperate with this enquiry.

Legal proceedings brought by AstraZeneca considered to be contingent assets

Inflation Reduction Act Litigation

US proceedings

In August 2023, AstraZeneca filed a lawsuit in federal court in Delaware challenging aspects of the drug price negotiation provisions of the Inflation Reduction Act and the implementing guidance and regulations promulgated by the US Department of Health and Human Services.

Louisiana 340B Litigation

US proceedings

In August 2023, AstraZeneca filed a lawsuit against the State of Louisiana alleging that the Louisiana's 340B statute, which requires manufacturers to recognize an unlimited number of contract pharmacies, is preempted on several grounds and violates the Contracts Clause of the U.S. Constitution. AstraZeneca and the State of Louisiana have moved for summary judgment on AstraZeneca's claims.

Legal proceedings brought against AstraZeneca which have been concluded

COVID-19 Vaccine Supply and Manufacturing Inquiries

Brazil proceedings

In February 2022, a Brazilian Public Prosecutor filed a lawsuit against several defendants including the Brazilian Federal Government, AstraZeneca, and other COVID-19 vaccine manufacturers. In April 2022, a Brazilian Court issued an order dismissing the lawsuit. In October 2023, the pending appeal was dismissed. No further appeal was made. This matter is now concluded.

Legal proceedings brought by AstraZeneca which have been concluded

US 340B Litigation

US proceedings

In January 2021, AstraZeneca filed a lawsuit in the US District Court for the District of Delaware (District Court) alleging that an Advisory Opinion issued by the Department of Health and Human Services violates the Administrative Procedure Act. In June 2021, the District Court found in favour of AstraZeneca, invalidating the Advisory Opinion. However, in May 2021, prior to the District Court's ruling, the US Government issued new and separate letters to AstraZeneca (and other companies) asserting that AstraZeneca's contract pharmacy policy violates the 340B statute. AstraZeneca amended the complaint to include allegations challenging the letter sent in May 2021, and in February 2022, the District Court ruled in favour of AstraZeneca invalidating those letters sent by the US Government. In January 2023, the Court of Appeals affirmed the District Court's decision in AstraZeneca's favour. Final judgment was entered in favour of AstraZeneca in May 2023 and this matter is now concluded.

Other

Additional government inquiries

As is true for most, if not all, major prescription pharmaceutical companies, AstraZeneca is currently involved in multiple inquiries into drug marketing and pricing practices. In addition to the investigations described above, various law enforcement offices have, from time to time, requested information from the Group. There have been no material developments in those matters.

Tax

AstraZeneca considers whether it is probable that a taxation authority will accept an uncertain tax treatment. If it is concluded that it is not probable that the taxation authority will accept an uncertain tax treatment, where tax exposures can be quantified, a tax liability is recognised based on either the most likely amount method or the expected value method depending on which method management expects to better predict the resolution of the uncertainty. Tax liabilities for uncertain tax treatments can be built up over a long period of time but the resolution of such tax exposures usually occurs at a point in time, and given the inherent uncertainties in assessing the outcomes of these exposures (which sometimes can be binary in nature), we could, in future periods, experience adjustments to the liabilities recognised in respect of uncertain tax treatments that have a material positive or negative effect on our results in any particular period. Details of the movements in relation to material uncertain tax treatments are discussed below.

KJ AstraZeneca faces a number of audits and reviews in jurisdictions around the world and, in some cases, is in dispute with the tax authorities. The issues under discussion are often complex and can require many years to resolve. Tax liabilities recognised for uncertain tax treatments require management to make key judgements with respect to the outcome of current and potential future tax audits, and actual results could vary from these estimates. Management does not believe a significant risk of material change to uncertain tax positions exists in the next 12 months.

The total net tax liability recognised in the Group Financial Statements in respect of uncertain tax positions is $1,336m (2022: $830m; 2021: $768m). The net tax liability consists of $1,241m (2022: $632m; 2021: $702m) included within income tax payable, $441m (2022: $291m; 2021: $(33)m) included within deferred tax asset, partially offset by $9m (2022: $(20)m; 2021: $(17)m) included within deferred tax liabilities, and $337m (2022: $113m; 2021: additional $82m) included within income tax receivable.

Transfer pricing

The net tax liability included in the Group Financial Statements to cover the worldwide exposure to uncertain tax treatments is $401m (2022: $260m; 2021: $77m). The increase in the net tax liability for uncertain tax positions relating to transfer pricing of $141m compared with 2022 is mainly as a result of an increase of tax liabilities arising from updates to estimates of prior period tax liabilities following progression of tax authority reviews.

These matters can be complex and judgemental. The liability includes uncertain tax treatments which are estimated using the expected value method and depend on AstraZeneca's assessment of the likelihood of the approach taken by the tax authorities and could change in the future to reflect progress in tax authority reviews, the extent that any tax authority challenge is concluded, or matters lapse including following expiry of the relevant statutes of limitation resulting in a reduction in the tax charge in future periods.

For transfer pricing matters, including items under tax audit, AstraZeneca estimates the potential for additional tax liabilities above the amount provided where the possibility of the additional liabilities falling due is more than remote, to be up to $386m (2022: $245m; 2021: $48m) including associated interest.

30 Commitments, contingent liabilities and contingent assets *continued*

Management believes that it is unlikely that these additional liabilities will arise. It is possible that some of these contingencies may change in the future to reflect progress in tax authority reviews, to the extent that any tax authority challenge is concluded or matters lapse including following expiry of the relevant statutes of limitation resulting in a reduction in the tax charge in future periods. Management continues to believe that AstraZeneca's positions on all its transfer pricing positions, audits and disputes are robust, and that AstraZeneca has recognised appropriate tax balances, including consideration of whether corresponding relief will be available under Mutual Agreement procedures or unilaterally.

Other uncertain tax treatments

Included in the net tax liability is $935m (2022: $570m; 2021: $691m) relating to a number of other uncertain tax treatments. The increase of $365m in the net tax liability relating to the other uncertain tax treatments mainly relates to an update to tax liabilities following progress of reviews by tax authorities and administrative appeal processes. The liability includes tax liabilities in respect of uncertain tax treatments which are estimated using the most likely amount method and the expected value method and depend on AstraZeneca's assessment of the likelihood of the approach taken by the tax authorities. This could change in the future to reflect progress in tax authority reviews, the extent that any tax authority challenge is concluded, or matters lapse including following expiry of the relevant statutes of limitation resulting in a reduction in the tax charge in future periods.

For these other tax liabilities in respect of uncertain tax treatments, AstraZeneca estimates the potential for additional liabilities above the amount provided where the possibility of the additional liabilities falling due is more than remote, to be up to $293m (2022: $209m; 2021: $273m) including associated interest. It is possible that some of these liabilities may reduce in the future if any tax authority challenge is concluded or matters lapse following expiry of the relevant statutes of limitation, resulting in a reduction in the tax charge in future periods. AstraZeneca does not believe there are any significant other uncertain tax treatments where the possibility of the additional liabilities falling due is more than remote (2022: $280m; 2021: $325m) including associated interest.

Timing of cash flows and interest

The Group is currently under audit in several countries and the timing of any resolution of these audits is uncertain.

It is anticipated that tax payments may be required in relation to a number of significant disputes which may be resolved over the next one to two years. AstraZeneca considers the tax liabilities set out above to appropriately reflect the expected value of any final settlement. Some of the items discussed above are not currently within the scope of tax authority audits and may take longer to resolve.

Included within other payables is a net amount of interest arising on tax contingencies of $184m (2022: $106m; 2021: $85m).

31 Statutory and other information

	2023 $m	2022 $m	2021 $m
Fees payable to PricewaterhouseCoopers LLP and its associates:			
Group audit fee	**10.2**	9.9	10.5
Fees payable to PricewaterhouseCoopers LLP and its associates for other services:			
The audit of subsidiaries pursuant to legislation	**15.0**	15.1	15.2
Attestation under s404 of Sarbanes-Oxley Act 2002	**3.3**	3.1	2.0
Audit-related assurance services	**1.1**	0.7	4.5
Other assurance services	**0.2**	0.2	3.4
Fees payable to PricewaterhouseCoopers Associates in respect of the Group's pension schemes:			
The audit of subsidiaries' pension schemes	**0.3**	0.3	0.3
	30.1	29.3	35.9

$0.7m of fees payable in 2023 are in respect of the Group audit and audit of subsidiaries related to prior years (2022: $0.6m in respect of the Group audit and audit of subsidiaries related to prior years).

$0.3m of 2021 Group audit fees and $0.7m of 2021 Audit-related assurance services and Other assurance services relate to pre-acquisition fees incurred by Alexion.

Included in the 2021 Audit-related assurance services and Other assurance services are $6.1m of services provided in relation to the acquisition of Alexion and related debt issuance.

Related party transactions

The Group had no material related party transactions which might reasonably be expected to influence decisions made by the users of these Financial Statements.

Key management personnel compensation

Key management personnel are defined for the purpose of disclosure under IAS 24 'Related Party Disclosures' as the members of the Board and the members of the SET.

	2023 $'000	2022 $'000	2021 $'000
Short-term employee benefits	**38,636**	38,632	32,985
Post-employment benefits	**1,354**	1,388	1,378
Share-based payments	**58,242**	56,297	45,234
	98,232	96,317	79,597

Total remuneration is included within employee costs (see Note 29).

32 Subsequent events

There were no material subsequent events.

Group Subsidiaries and Holdings

In accordance with section 409 of the Companies Act 2006 a full list of subsidiaries, partnerships, associates, joint ventures and joint arrangements, the place of incorporation, registered office address, and the effective percentage of equity owned as at 31 December 2023 are disclosed below. Unless otherwise stated, the share capital disclosed comprises ordinary shares which are indirectly held by AstraZeneca PLC.

Unless otherwise stated, the accounting year ends of subsidiaries are 31 December. The Group Financial Statements consolidate the Financial Statements of the Company and its subsidiaries at 31 December 2023.

At 31 December 2023	Group Interest
Wholly owned subsidiaries	
Algeria	
AAPM SARL	100%
Number 20, Micro-Economic Zone, Hydra Business Center, Dar El Medina, Algiers, Algeria	
Argentina	
AstraZeneca S.A.	100%
Olga Cossettini 363, 3° floor, Buenos Aires, Argentina	
Alexion Pharma Argentina SRL	100%
Avenida Leandro N. Alem 592 Piso 6, Buenos Aires, Argentina	
Australia	
AstraZeneca Holdings Pty Limited	100%
AstraZeneca Pty Limited	100%
Alexion Pharmaceuticals Australasia Pty Ltd	100%
66 Talavera Road, Macquarie Park, NSW 2113, Australia	
LogicBio Australia Pty Limited	100%
Level 40, 2-26 Park Street, Sydney, NSW 2000, Australia	
Austria	
AstraZeneca Österreich GmbH	100%
A-1120 Wien, Rechte Wienzeile 223 Tür 16.1, Austria	
Alexion Pharma Austria GmbH	100%
Donau-City-Straße 7, 30. Stock, DC Tower, Vienna 1220, Austria	
Portola Österreich GmbH (in liquidation)	100%
Mooslackengasse 17, 1190 Wien, Austria	
Belgium	
AstraZeneca S.A. / N.V.	100%
Alfons Gossetlaan 40 bus 201 at 1702 Groot-Bijgaarden, Belgium	
Alexion Pharma Belgium Sprl	100%
Alexion Services Europe Sprl	100%
de Meeûssquare 37, Bruxelles 1000, Belgium	
Bermuda	
Alexion Bermuda Holding ULC	100%
Alexion Bermuda Limited	100%
Alexion Bermuda Partners LP	100%
Canon's Court, 22 Victoria St., Hamilton, Bermuda	

At 31 December 2023	Group Interest
Brazil	
AstraZeneca do Brasil Limitada	100%
Rod. Raposo Tavares, KM 26, 9, Cotia, Brazil	
Alexion Farmacêutica América Latina Serviços de Administração de Vendas Ltda.	100%
Alexion Serviços e Farmacêutica do Brasil Ltda.	100%
Av. Dr Chucri Zaidan, 1240, 15° andar, CEP 04711-130, Ed. Morumbi Corporate – Golden Tower Vila São Francisco, São Paulo, Brazil	
Bulgaria	
AstraZeneca Bulgaria EOOD	100%
1057 Sofia, Izgrev Region, 36 Dragan Tsankov Blvrd, Bulgaria	
Canada	
AstraZeneca Canada Inc.[1]	100%
Suite 5000, 1004 Middlegate Road, Mississanga, ON, L4Y 1M4, Canada	
Alexion Pharma Canada Corporation	100%
1300-1969 ST Upper Water, Halifax, NS, B3J 3R7, Canada	
Cayman Islands	
AZ Reinsurance Limited	100%
18 Forum Lane, 2nd Floor, Camana Bay, Grand Cayman, P.O. Box 69, Cayman Islands	
Grey Wolf Merger Sub	100%
PO Box 309, Ugland House, Grand Cayman, KY1-1104, Cayman Islands	
Chile	
AstraZeneca S.A.	100%
AstraZeneca Farmaceutica Chile Limitada	100%
Av. Isidora Goyenechea 3477, 2nd Floor, Las Condes, Santiago, Chile	
China	
AstraZeneca Pharmaceutical Co., Limited	100%
No. 2, Huangshan Road, Wuxi, Jiangsu Province, China	
AstraZeneca (Wuxi) Trading Co. Ltd	100%
Building E, Huirong Plaza, Jinghui Road East, Xinwu District, Wuxi, Jiangsu Province, China	
AstraZeneca Investment (China) Co., Ltd	100%
199 Liangjing Road, China (Shanghai) Pilot Free Trade Zone, Shanghai, China	
AstraZeneca Pharmaceutical (China) Co. Ltd	100%
No. 9, Medical Avenue, Jiangsu Province, Taizhou, China	
AstraZeneca Pharmaceutical (Beijing) Co., Ltd	100%
1F, Building No. 4, No. 8 Courtyard, No. 1 Kegu Street, Beijing Economic-Technological Development Area, Beijing 100176, China	

At 31 December 2023	Group Interest
AstraZeneca (Guangzhou) Pharmaceutical Co., Ltd	100%
Room 406-178, No. 1, Yichuang Street, (China-Singapore Guangzhou Knowledge City) Huangpu District, Guangzhou City, China	
AstraZeneca Investment Consulting (Wuxi) Co., Ltd	100%
Room 808, 8F, Building 99-2 Linghu Avenue, Xinwu District, Wuxi, Jiangsu, China	
AstraZeneca Pharmaceutical (Hangzhou) Co., Ltd	100%
12F & 14F, Building 1, Shuli Plaza, 758 Fei Jia Tang Road, Gongshu District, Hangzhou, Zhejiang Province, China	
AstraZeneca Global R&D (China) Co., Ltd	100%
16F, 88 Xizang North Road, Jing'an District, Shanghai, China	
AstraZeneca Pharmaceutical (Chengdu) Co., Ltd	100%
10th Floor, Building 11 (Building E11), No. 366, Hemin Street, Chengdu High-tech Zone, China (Sichuan) Pilot Free Trade Zone, China	
AstraZeneca Pharmaceutical (Shanghai) Co., Ltd	100%
B1F, 8F & 9F, 88 Xizang North Road, Jing'an District, Shanghai, China	
Alexion Pharmaceuticals (Shanghai) Company Limited	100%
Room 702, No. 1539 West Nanjing Road, Jing'an District, Shanghai, China	
AstraZeneca Pharmaceutical Manufacturing (Qingdao) Co., Ltd.	100%
AstraZeneca Pharmaceutical (Qingdao) Co., Ltd.	100%
Room 806, Building 2, No. 82 Juxianqiao Road, High-tech Zone, Qingdao City, Shandong Province, China	
Colombia	
AstraZeneca Colombia S.A.S.	100%
Av Carrera 9 No. 101-67 Office 601, Bogotá, 110231, Colombia	
Alexion Pharma Colombia S.A.S.	100%
Carrera 9 No. 115 - 06 /30 Edificio Tierra Firme Oficina 2904 Bogotá D.C., Colombia	
Costa Rica	
AstraZeneca CAMCAR Costa Rica, S.A.	100%
San José, Escazú, Roble Corporate Center, 5to piso, Costa Rica	
Croatia	
AstraZeneca d.o.o.	100%
Radnicka cesta 80, 10000 Zagreb, Croatia	

Group Subsidiaries and Holdings
continued

At 31 December 2023	Group Interest
Czech Republic	
AstraZeneca Czech Republic, s.r.o.	100%
U Trezorky 921/2, 158 00 Prague 5, Czech Republic	
Alexion Pharma Czech s.r.o.	100%
Novodvorská 994/138, Braník, 142 00 Prague, Czech Republic	
Denmark	
AstraZeneca A/S	100%
Johanne Møllers Passage 1, Dk-1799 Copenhagen V, Denmark	
Egypt	
AstraZeneca Egypt for Pharmaceutical Industries SAE	100%
6th of October City, 6th Industrial Zone, Plot 2, Giza, Egypt	
AstraZeneca Egypt LLC	100%
47 St. 270 New Maadi, Cairo, Egypt	
Drimex LLC	100%
Plot 133, Banks' District, 5th Settlement, New Cairo, Cairo, Egypt	
Estonia	
AstraZeneca Eesti OÜ	100%
Harju maakond, Tallinn, Lasnamäe linnaosa, Valukoja tn 8/1, 11415, Estonia	
Finland	
AstraZeneca Oy.	100%
Keilaranta 18, 02150 Espoo, Finland	
France	
AstraZeneca SAS	100%
Tour Carpe Diem-31, Place des Corolles, 92400 Courbevoie, France	
AstraZeneca Reims Production SAS	100%
Chemin de Vrilly Parc, Industriel de la Pompelle, Reims, 51100, France	
AstraZeneca Dunkerque Production SCS	100%
224 Avenue de la Dordogne, 59640 Dunkerque, France	
Alexion Europe SAS	100 %
Alexion Pharma France SAS	100 %
103-105 Rue Anatole France 92300 Levallois-Perret, France	
Germany	
AstraZeneca Holding GmbH	100%
AstraZeneca GmbH	100%
Friesenweg 26, 22763, Hamburg, Germany	
Sofotec GmbH	100%
Benzstrasse 1-3, 61352, Bad Homburg v.d. Hohe, Germany	
AstraZeneca Computational Pathology GmbH[2]	100%
Bernhard-Wicki-Straße 5, 80636, Munich, Germany	
Alexion Pharma Germany GmbH	100%
Landsberger Straße 300, 80687, Munich, Germany	

At 31 December 2023	Group Interest
Greece	
AstraZeneca S.A.	100%
Agisilaou 6-8 Marousi, Athens, Greece	
Hong Kong	
AstraZeneca Hong Kong Limited	100%
Unit 1 – 3, 11/F., China Taiping Finance Centre, 18 King Wah Road, North Point, Hong Kong	
Hungary	
AstraZeneca Kft	100%
1st floor, 4 building B, Alíz str., Budapest, 1117, Hungary	
India	
AstraZeneca India Private Limited[3]	100%
Block A, Neville Tower, 11th Floor, Ramanujan IT SEZ, Taramani, Chennai, Tamil Nadu, PIN 600113, India	
Alexion Business Services Private Limited	100%
9th Floor, Platina, G Block Plot No. C-59, Bandra-Kurla Complex Bandra (East), Mumbai 400051, India	
Iran	
AstraZeneca Pars Company	100%
Suite 1, 1st Floor No. 39, Alvand Ave., Argantin Sq., Tehran 1516673114, Iran	
Ireland	
AstraZeneca Pharmaceuticals (Ireland) Designated Activity Company	100%
4th Floor, South Bank House, Barrow Street, Dublin, 4, Republic of Ireland	
Alexion Pharma Holding Limited	100%
Alexion Pharma International Operations Limited	100%
Alexion Pharma Development Limited	100%
AstraZeneca Ireland Limited	100%
College Business & Technology Park, Blanchardstown Road North, Dublin 15, Republic of Ireland	
Israel	
AstraZeneca (Israel) Ltd	100%
Atirei Yeda 1, Building O-Tech 2, POB 8044, Kfar Saba, 4464301, Israel	
Alexion Pharma Israel Ltd	100%
4 Weizmann Str., Tel-Aviv-Jaffa, Israel	
Italy	
Simesa SpA	100%
AstraZeneca SpA	100%
Alexion Pharma Italy Srl	100%
Viale Decumano 39, 20157 Milan, Italy	
Japan	
AstraZeneca K.K.	100%
Grand Front Osaka Tower B, 3-1, Ofuka-cho, Kita-ku, Osaka, 530-0011, Japan	
Alexion Pharma GK	100%
Ebisu First Square, 18-14, Ebisu 1-chome, Shibuya-ku, Tokyo, Japan	

At 31 December 2023	Group Interest
Kazakhstan	
AstraZeneca Kazakhstan LLP	100%
Office 101, 77 Kunayev Street, Almaty 050000, Kazakhstan	
Kenya	
AstraZeneca Pharmaceuticals Limited	100%
L.R. No.1/1327, Avenue 5, 1st Floor, Rose Avenue, Nairobi, Kenya	
Latvia	
AstraZeneca Latvija SIA	100%
Skanstes iela 50, Riga, LV-1013, Latvia	
Lithuania	
AstraZeneca Lietuva UAB	100%
Spaudos g., Vilnius, LT-05132, Lithuania	
Luxembourg	
AstraZeneca Luxembourg S.A.	100%
Rue Nicolas Bové 2A – L-1253, Luxembourg	
Malaysia	
AstraZeneca Asia-Pacific Business Services Sdn Bhd	100%
12th Floor, Menara Symphony, No. 5 Jalan Prof, Khoo Kay Kim, Seksyen 13, 46200 Petaling Jaya, Selangor Darul Ehsan, Malaysia	
AstraZeneca Sdn Bhd	100%
Nucleus Tower, Level 11 & 12, No. 10 Jalan PJU 7/6, Mutiara Damansara, 47800 Petaling Jaya, Selangor Darul Ehsan, Malaysia	
Mexico	
AstraZeneca Health Care Division, S.A. de C.V.	100%
AstraZeneca, S.A. de C.V.	100%
Av. Periferico Sur 4305 interior 5, Colonia Jardines en la Montaña, Mexico City, Tlalpan Distrito Federal, CP 14210, Mexico	
Alexion Pharma Mexico S. de R.L. de C.V.	100%
Paseo de los Tamarindos 90, Torre 1 piso 6 - A Col., Bosques de la Lomas, CP 05120 D.F, Mexico	
Morocco	
AstraZeneca Maroc SARLAU	100%
92 Boulevard Anfa ETG 2, Casablanca 20000, Morocco	
The Netherlands	
AstraZeneca B.V.	100%
AstraZeneca Continent B.V.	100%
AstraZeneca Gamma B.V.	100%
AstraZeneca Holdings B.V.	100%
AstraZeneca Jota B.V.	100%
AstraZeneca Rho B.V.	100%
AstraZeneca Sigma B.V.	100%
AstraZeneca Treasury B.V.	100%
AstraZeneca Zeta B.V.	100%
Prinses Beatrixlaan 582, 2595BM, The Hague, The Netherlands	

At 31 December 2023	Group Interest
AstraZeneca Nijmegen B.V.	100%
Lagelandseweg 78, 6545 CG Nijmegen, The Netherlands	
Acerta Pharma B.V.	100%
Aspire Therapeutics B.V.	100%
Kloosterstraat 9, 5349 AB, Oss, The Netherlands	
Portola Netherlands B.V.	100%
Prins Bernhardplein 200 JB Amsterdam 1097, The Netherlands	
Alexion Holding B.V.	100%
Alexion Pharma Foreign Holdings B.V.	100%
Alexion Pharma Netherlands B.V.	100%
Prinses Beatrixlaan 582, 5895 BM, The Hague, The Netherlands	
Neogene Therapeutics B.V.	100%
Science Park 106, 1098 XG Amsterdam, The Netherlands	
New Zealand	
AstraZeneca Limited	100%
Pharmacy Retailing (NZ) Limited t/a Healthcare Logistics, 58 Richard Pearse Drive, Mangere, Auckland, 1142, New Zealand	
Nigeria	
AstraZeneca Nigeria Limited	100%
11A, Alfred Olaiya Street, Awuse Estate, Off Salvation Street, Opebi, Ikeja, Lagos, Nigeria	
Norway	
AstraZeneca AS	100%
Karvesvingen 7, 0579 Oslo, Norway	
Pakistan	
AstraZeneca Pharmaceuticals Pakistan (Private) Limited[4]	100%
Office No 1, 2nd Floor, Sasi Arcade, Block 7, Main Clifton Road, Karachi, Pakistan	
Panama	
AstraZeneca CAMCAR, S.A.	100%
Bodega #1, Parque Logistico MIT, Carretera Hacia Coco Solo, Colon, Panama	
Peru	
AstraZeneca Peru S.A.	100%
Calle Las Orquídeas N° 675, Int. 802, Edificio Pacific Tower, San Isidro, Lima, Peru	
Philippines	
AstraZeneca Pharmaceuticals (Phils.) Inc.	100%
16th Floor, Inoza Tower, 40th Street, Bonifacio Global City, Taguig 1634, Philippines	
Poland	
AstraZeneca Pharma Poland Sp.z.o.o.	100%
Alexion Pharma Poland Sp.z.o.o.	100%
Postepu 14, 02-676, Warszawa, Poland	

At 31 December 2023	Group Interest
Portugal	
Astra Alpha Produtos Farmacêuticos Lda	100%
AstraZeneca Produtos Farmacêuticos Lda	100%
Novastra Promoção e Comércio Farmacêutico Lda	100%
Novastuart Produtos Farmacêuticos Lda	100%
Stuart-Produtos Farmacêuticos Lda	100%
Zeneca Epsilon – Produtos Farmacêuticos Lda	100%
Zenecapharma Produtos Farmacêuticos, Unipessoal Lda	100%
Rua Humberto Madeira, No 7, Queluz de Baixo, 2730-097, Barcarena, Portugal	
Puerto Rico	
IPR Pharmaceuticals, Inc.	100%
Road 188, San Isidro Industrial Park, Canóvanas, 00729, Puerto Rico	
Romania	
AstraZeneca Pharma S.R.L.	100%
Bucharest, 1A Tipografilor Street, MUSE Offices, 2nd and 3rd Floor, District 1, 013714, Romania	
Russia	
AstraZeneca Industries, LLC	100%
8 1st Vostochniy lane, Dobrino village, Borovskiy district, Kaluga region 249006, Russian Federation	
AstraZeneca Pharmaceuticals, LLC	100%
Building 1, 21 First Krasnogvardeyskiy lane, floor 30, rooms 13 and 14, Moscow, 123112, Russian Federation	
Alexion Pharma OOO LLC	100%
Building 1, 21 First Krasnogvardeyskiy lane, floor 29, Moscow, 123112, Russian Federation	
Saudi Arabia	
AstraZeneca Continent – Regional Headquarter	100%
Al-Nakhlah Tower, Floor 13th Ath Thumamah Road, Al Sahafa District., P.O. Box 42150, Riyadh, Kingdom of Saudi Arabia	
AstraZeneca Trading Company	100%
125 Prince Sultan, 2086 Ar Rawdah District, 23435, Jeddah, Kingdom of Saudi Arabia	
Singapore	
AstraZeneca Singapore Pte Limited	100%
10 Kallang Avenue #12-10, Aperia Tower 2, 339510, Singapore	
South Africa	
AstraZeneca Pharmaceuticals (Pty) Limited	100%
17 Georgian Crescent West, Northdowns Office Park, Bryanston, 2191, South Africa	

At 31 December 2023	Group Interest
South Korea	
AstraZeneca Korea Co. Ltd	100%
21st Floor, Asem Tower, 517, Yeongdong-daero, Gangnam-gu, Seoul, 06164, Republic of Korea	
Alexion Pharma Korea LLC	100%
41 FL., 152 Teheran-ro (Yeoksam-dong Gangnam Finance Center), Gangnam-gu, Seoul, Republic of Korea	
Spain	
AstraZeneca Farmaceutica Holding Spain, S.A.	100%
AstraZeneca Farmaceutica Spain S.A.	100%
Laboratorio Beta, S.A.	100%
Laboratorio Lailan, S.A.	100%
Laboratorio Tau, S.A.	100%
Fundación AstraZeneca	100%
Calle del Puerto de Somport, 21-23, 28050, Madrid, Spain	
Alexion Pharma Spain S.L.	100%
Av Diagonal Num.601 P.1, Barcelona 08028, Spain	
Sweden	
Astra Export & Trading Aktiebolag	100%
Astra Lakemedel Aktiebolag	100%
AstraZeneca AB	100%
AstraZeneca Biotech AB	100%
AstraZeneca BioVentureHub AB	100%
AstraZeneca Holding Aktiebolag[5]	100%
AstraZeneca International Holdings Aktiebolag[6]	100%
AstraZeneca Nordic AB	100%
AstraZeneca Pharmaceuticals Aktiebolag	100%
AstraZeneca Södertälje 2 AB	100%
Stuart Pharma Aktiebolag	100%
Tika Lakemedel Aktiebolag	100%
SE-151 85 Södertälje, Sweden	
Aktiebolaget Hassle	100%
Symbicom Aktiebolag[6]	100%
431 83 Molndal, Sweden	
Astra Tech International Aktiebolag	100%
Box 14, 431 21 Molndal, Sweden	
Alexion Pharma Nordics Holding AB	100%
Alexion Pharma Nordics AB	100%
Kungsgatan 3, Stockholm 111 43, Sweden	
Switzerland	
AstraZeneca AG	100%
Evinova AG	100%
Neuhofstrasse 34, 6340 Baar, Switzerland	
Spirogen Sarl[6]	100%
Rue du Grand-Chêne 5, CH-1003 Lausanne, Switzerland	
Alexion Pharma GmbH	100%
Giesshübelstrasse 30, Zürich 8045, Switzerland	

Group Subsidiaries and Holdings
continued

At 31 December 2023	Group Interest
Taiwan	
AstraZeneca Taiwan Limited	100%
21st Floor, Taipei Metro Building 207, Tun Hwa South Road, SEC 2 Taipei, Taiwan	
Alexion Pharma Taiwan Ltd	100%
Room 1153, 11F, No. 1, SongZhi Rd, Taipei 11047, Taiwan	
Thailand	
AstraZeneca (Thailand) Limited	100%
Asia Centre 19th floor, 173/20, South Sathorn Rd, Khwaeng Thungmahamek, Khet Sathorn, Bangkok, 10120, Thailand	
Tunisia	
AstraZeneca Tunisie SaRL	100%
Lot n°1.5.5 les jardins du lac, bloc B les berges du lac Tunis, Tunisia	
Turkey	
AstraZeneca Ilac Sanayi ve Ticaret Limited Sirketi	100%
YKB Plaza, B Blok, Kat:3-4, Levent/Besiktas, Istanbul, Turkey	
Zeneca Ilac Sanayi ve Ticaret Anonim Sirketi	100%
Büyükdere Cad., Y.K.B. Plaza, B Blok, Kat:4, Levent/Beşiktaş, Istanbul, Turkey	
Alexion Ilac Ticaret Limited Sirketi	100%
Içerenköy Mahellisi Umut SK. and Ofis Sit. No: 10 12/73 Ataşehir, Istanbul 10-12/73, Turkey	
Ukraine	
AstraZeneca Ukraina LLC	100%
54 Simi Prakhovykh street, Kyiv, 01033, Ukraine	
United Arab Emirates	
AstraZeneca FZ-LLC	100%
P.O. Box 505070, Block D, Dubai Healthcare City, Oud Mehta Road, Dubai, United Arab Emirates	
Alexion Pharma Middle East FZ-LLC	100%
Dubai Science Park, 501, Floor 5, EIB Building No. 2, Dubai, United Arab Emirates	
United Kingdom	
Ardea Biosciences Limited	100%
Arrow Therapeutics Limited	100%
Astra Pharmaceuticals Limited	100%
AstraPharm[6]	100%
AstraZeneca China UK Limited	100%
AstraZeneca Death In Service Trustee Limited	100%
AstraZeneca Employee Share Trust Limited	100%
AstraZeneca Finance Limited	100%
AstraZeneca Intermediate Holdings Limited[5]	100%
AstraZeneca Investments Limited	100%
AstraZeneca Japan Limited	100%
AstraZeneca Nominees Limited	100%
AstraZeneca Quest Limited	100%
AstraZeneca Share Trust Limited	100%

At 31 December 2023	Group Interest
AstraZeneca Sweden Investments Limited	100%
AstraZeneca Treasury Limited[6]	100%
AstraZeneca UK Limited	100%
AstraZeneca US Investments Limited[5]	100%
AZENCO2 Limited	100%
AZENCO4 Limited	100%
Cambridge Antibody Technology Group Limited	100%
KuDOS Horsham Limited	100%
KuDOS Pharmaceuticals Limited	100%
Zenco (No. 8) Limited	100%
Zeneca Finance (Netherlands) Company	100%
MedImmune Limited	100%
1 Francis Crick Avenue, Cambridge Biomedical Campus, Cambridge, CB2 0AA, United Kingdom	
MedImmune U.K. Limited	100%
Plot 6, Renaissance Way, Boulevard Industry Park, Liverpool, L24 9JW, United Kingdom	
Syntimmune Limited	100%
21 Holborn Viaduct, London, EC1A 2DY, United Kingdom	
Alexion Pharma UK Limited	100%
Portola Pharma UK Limited (in liquidation)	100%
3 Furzeground Way, Stockley Park, Uxbridge, Middlesex, UB11 1EZ, United Kingdom	
United States	
Ardea Biosciences, Inc.	100%
Amylin Ohio LLC[7]	100%
Amylin Pharmaceuticals, LLC[7]	100%
AstraZeneca Collaboration Ventures, LLC[7]	100%
AstraZeneca Finance LLC[7]	100%
AstraZeneca Finance and Holdings Inc.	100%
AstraZeneca Pharmaceuticals LP[8]	100%
Atkemix Nine Inc.	100%
Atkemix Ten Inc.	100%
BMS Holdco, Inc.	100%
Cincor Pharma Inc.	100%
Corpus Christi Holdings Inc.	100%
Isochrone Merger Sub Inc.	100%
Neogene Therapeutics, Inc.	100%
Omthera Pharmaceuticals, Inc.	100%
Optein, Inc.	100%
Stauffer Management Company LLC[7]	100%
Zeneca Holdings Inc.	100%
Zeneca Inc.	100%
Zeneca Wilmington Inc.[5]	100%
1800 Concord Pike, Wilmington, DE 19803, United States	
ZS Pharma Inc.	100%
1100 Park Place, Suite 300, San Mateo, CA 94403, United States	
AlphaCore Pharma, LLC[7]	100%
333 Parkland Plaza, Suite 5, Ann Arbor, MI 48103, United States	

At 31 December 2023	Group Interest
AZ-Mont Insurance Company	100%
100 Bank Street, Suite 630, Burlington, VT 05401, United States	
MedImmune, LLC[7]	100%
MedImmune Ventures, Inc.	100%
One MedImmune Way, Gaithersburg, MD 20878, United States	
Pearl Therapeutics, Inc.	100%
200 Cardinal Way, Redwood City, CA 94063, United States	
Caelum Biosciences Inc.	100%
1200 Florence Columbus Road, Bordentown, NJ 08505, United States	
Alexion Services Latin America Inc.	100%
600 Brickell Ave, Miami, FL 33131, United States	
Portola USA, Inc.	100%
Portola Pharmaceuticals LLC	100%
270 East Grand Avenue, South San Francisco, CA 94080, United States	
Achillion Pharmaceuticals Inc.	100%
Alexion Delaware Holding LLC	100%
Alexion Pharma LLC	100%
Alexion Pharmaceuticals, Inc.	100%
Alexion US1 LLC	100%
Alexion US Holdings LLC	100%
LogicBio Therapeutics, Inc.	100%
Savoy Therapeutics Corp	100%
Syntimmune, Inc.	100%
TeneoTwo, Inc.	100%
121 Seaport Boulevard, Boston, MA 02210, United States	
Acerta Pharma LLC[7]	100%
121 Oyster Point Boulevard, South San Francisco, CA 94080, United States	
LogicBio Securities Corporation	100%
65 Hayden Avenue, Lexington, MA 92421, United States	
Alexion Holding LLC	100%
100 College Street, New Haven, CT 06510, United States	
Uruguay	
AstraZeneca S.A.	100%
Yaguarón 1407 of 1205, 11.100, Montevideo, Uruguay	
Venezuela	
AstraZeneca Venezuela S.A.	100%
Gotland Pharma S.A.	100%
Av. La Castellana, Torre La Castellana, Piso 5, Oficina 5-G, 5-H, 5-I, Urbanización La Castellana, Municipio Chacao, Estado Bolivariano de Miranda, Venezuela	
Vietnam	
AstraZeneca Vietnam Company Limited	100%
18th Floor, A&B Tower, 76 Le Lai, Ben Thanh Ward, District 1, Ho Chi Minh City, Vietnam	

At 31 December 2023	Group Interest
Subsidiaries where the effective interest is less than 100%	
Algeria	
AstraZeneca Algeria Pharmaceutical Industries SPA	49%
N° 20, Micro Zone d'Activité Hydra, Centre des Affaires Dar El Madina, Bloc A, 6th Floor, Hydra, Algiers, Algeria	
China	
Beijing Falikang Pharmaceutical (China) Co. Ltd	49%
No. 69 Fushi Road, Haidian District, Beijing, 100143, China	
India	
AstraZeneca Pharma India Limited[3]	75%
Block N1, 12th Floor, Manyata Embassy Business Park, Rachenahalli, Outer Ring Road, Bangalore-560 045, India	
Indonesia	
P.T. AstraZeneca Indonesia	95%
Perkantoran Hijau Arkadia Tower F, 3rd Floor, Jl. T.B. Simatupang Kav. 88, South Jakarta, 12520, Indonesia	
Joint Ventures	
China	
WuXi MedImmune Biopharmaceutical Co., Limited (in liquidation)	50%
Room 1902, 19/F, Lee Garden One, 33 Hysan Avenue, Causeway Bay, Hong Kong	
IHP HK Holdings Limited	50%
Unit 5805, 58/F., Two International Finance Centre 8 Finance Street, Central, China	
United Kingdom	
Centus Biotherapeutics Limited (in liquidation)	50%
c/o Cork Gully LLP, 40 Villiers Street, London, WC2N 6NJ, United Kingdom	
Ireland	
Centus Biotherapeutics Europe Limited (in liquidation)	50%
6th Floor, South Bank House, Barrow Street, Dublin 4, Republic of Ireland	
United States	
Montrose Chemical Corporation of California	50%
Suite 380, 600 Ericksen Ave N/E, Bainbridge Island, United States	

At 31 December 2023	Group Interest
Significant Holdings	
China	
Dizal (Jiangsu) Pharmaceutical Co., Ltd.	26.69%
199 Liangjing Rd, Zhangjiang Hi-Tech Park, Pudong District, Shanghai, 201203, China	
Wuxi AstraZeneca-CICC Venture Capital Partnership (Limited Partnership)	22.13%
Room 808, 8F, Building 99-2 Linghu Avenue, Xinwu District, Wuxi, Jiangsu, China	
United Kingdom	
VaxEquity	40%
Lab 4 Cambridge Science Park, Unit 204 Milton Road, Cambridge, CB4 0GZ, United Kingdom	
United States	
C.C. Global Chemicals Company	37.50%
PO Box 7, MS2901, Texas, TX76101-0007, United States	
Associated Holdings	
France	
Medetia SAS	10%
Institute Imagine 24, Boulevard du Montparnasse 75015, Paris, France	
Cellectis S.A.	22.35%
8, rue de la Croix Jarry, 75013 Paris, France	
Israel	
AION Labs Innovation Lab Ltd.	19.23%
4 Oppenheimer Street, Building B, Rehovot, 7670104, Israel	
CombinAble.AI Ltd.	11.25%
5 Oppenheimer Street, Building B, Rehovot, 7670104, Israel	
TenAces Biosciences Ltd.	12.50%
6 Oppenheimer Street, Building B, Rehovot, 7670104, Israel	
Sweden	
Swedish Orphan Biovitrum AB (publ)	9.89%
Tomtebodavägen 23A, Stockholm, Sweden	
OnDosis AB	19.90%
GoCo House, 5 tr, Gemenskapens gata 9, 431 53 Mölndal, Sweden	
CCRM Nordic AB	19.90%
CCRM Nordic AB, c/o GU Ventures AB, Erik Dahlbergsgatan 11 A, 411 26 Göteborg, Sweden	

At 31 December 2023	Group Interest
United Kingdom	
Niox Group plc	16.89%
Hayakawa Building, Edmund Halley Road, Oxford Science Park, Oxford, OX4 4GB, United Kingdom	
United States	
AbMed Corporation	18%
68 Cummings Park Drive, Woburn, MA 01801, United States	
Baergic Bio, Inc.	19.95%
1111 Kane Concourse, Suite 301 Bay Harbor Islands, FL 33154, United States	
Regio Biosciences	19.54%
668 Stoney Hill Road, #2, Yardley, PA 19067, United States	
Employee Benefit Trust	
The AstraZeneca Employee Benefit Trust	

[1] Ownership held in ordinary and class B special shares.
[2] Ownership held in common shares, preferred shares 2003, preferred shares 2003 ex (A), preferred shares 2003 ex (B), preferred shares Series D, preferred shares Series E and preferred shares Series F.
[3] Accounting year end is 31 March.
[4] Accounting year end is 30 June.
[5] Directly held by AstraZeneca PLC.
[6] Ownership held in Ordinary A shares and Ordinary B shares.
[7] Ownership held as membership interest.
[8] Ownership held as partnership interest.
[9] With effect from 13 January 2023, Namor Merger Sub Inc. was merged with and into Neogene Therapeutics, Inc., with Neogene Therapeutics, Inc. being the surviving corporation.

Company Balance Sheet
at 31 December

AstraZeneca PLC

	Notes	2023 $m	2022 $m
Fixed assets			
Fixed asset investments	1	**64,189**	63,555
		64,189	63,555
Current assets			
Debtors – other		**4**	4
Debtors – amounts owed by Group undertakings		**10,928**	2,608
		10,932	2,612
Creditors: Amounts falling due within one year			
Other payables	2	**(216)**	(194)
Amounts owed to Group undertakings	3	**–**	(283)
Interest-bearing loans and borrowings	3	**(2,995)**	(2,648)
		(3,211)	(3,125)
Net current assets/(liabilities)		**7,721**	(513)
Total assets less current liabilities		**71,910**	63,042
Creditors: Amounts falling due after more than one year			
Interest-bearing loans and borrowings	3	**(16,741)**	(17,939)
Other payables	2	**(21)**	(23)
		(16,762)	(17,962)
Net assets		**55,148**	45,080
Capital and reserves			
Called-up share capital	4	**388**	387
Share premium account		**35,188**	35,155
Capital redemption reserve		**153**	153
Other reserves		**1,779**	1,927
Profit and loss account		**17,640**	7,458
Shareholders' funds		**55,148**	45,080

$m means millions of US dollars.

The Company's profit for the year was $14,669m (2022: $380m).

The Company Financial Statements from pages 216 to 222 were approved by the Board and were signed on its behalf by

Pascal Soriot
Director
8 February 2024

Aradhana Sarin
Director

Company's registered number 02723534

Company Statement of Changes in Equity

for the year ended 31 December

	Share capital $m	Share premium account $m	Capital redemption reserve $m	Other reserves[1] $m	Profit and loss account[2] $m	Total equity $m
At 1 January 2022	387	35,126	153	2,182	11,563	49,411
Total comprehensive income for the period						
Profit for the period	–	–	–	–	380	380
Total comprehensive income for the period	–	–	–	–	380	380
Transactions with owners, recorded directly in equity						
Dividends	–	–	–	–	(4,485)	(4,485)
Capital contributions for share-based payments	–	–	–	(255)	–	(255)
Issue of Ordinary Shares	–	29	–	–	–	29
Total contributions by and distributions to owners	–	29	–	(255)	(4,485)	(4,711)
At 31 December 2022	387	35,155	153	1,927	7,458	45,080
Total comprehensive income for the period						
Profit for the period	**–**	**–**	**–**	**–**	**14,669**	**14,669**
Total comprehensive income for the period	**–**	**–**	**–**	**–**	**14,669**	**14,669**
Transactions with owners, recorded directly in equity						
Dividends	**–**	**–**	**–**	**–**	**(4,487)**	**(4,487)**
Capital contributions for share-based payments	**–**	**–**	**–**	**(148)**	**–**	**(148)**
Issue of Ordinary Shares	**1**	**33**	**–**	**–**	**–**	**34**
Total contributions by and distributions to owners	**1**	**33**	**–**	**(148)**	**(4,487)**	**(4,601)**
At 31 December 2023	**388**	**35,188**	**153**	**1,779**	**17,640**	**55,148**

[1] The Other reserves arose from the cancellation of £1,255m share premium by the Company in 1993 and the redenomination of share capital of $157m in 1999. Included within Other reserves at 31 December 2023 is $(62)m (31 December 2022: $86m) in respect of cumulative share-based payment awards, which are not available for distribution.

[2] At 31 December 2023, the overwhelming majority of the Profit and loss account reserve of $17,640m (31 December 2022: all of $7,458m) was available for distribution, subject to filing these Financial Statements with Companies House. When making a distribution to shareholders, the Directors determine profits available for distribution by reference to guidance on realised and distributable profits under the Companies Act 2006 issued by the Institute of Chartered Accountants in England and Wales and the Institute of Chartered Accountants of Scotland in April 2017. The profits of the Company have been received in the form of receivables due from subsidiaries. The availability of distributable reserves in the Company is dependent on those receivables meeting the definition of qualifying consideration within the guidance, and in particular on the ability of subsidiaries to settle those receivables within a reasonable period of time. The Directors consider that, based on the nature of these receivables and the available cash resources of the Group and other accessible sources of funds, at 31 December 2023, the overwhelming majority (31 December 2022: all) of the Company's profit and loss reserves were available for distribution.

Company Accounting Policies

Basis of presentation of financial information

The Company is a private limited company, limited by shares, incorporated and domiciled in England & Wales. The registered address is 1 Francis Crick Avenue, Cambridge Biomedical Campus, Cambridge, CB2 0AA.

These financial statements were prepared in accordance with FRS 101 'Reduced Disclosure Framework'.

In preparing these financial statements, the Company applied the recognition, measurement and disclosure requirements of International Financial Reporting Standards as adopted by the UK (UK-adopted international accounting standards), but made amendments where necessary in order to comply with the Companies Act 2006 and to take advantage of FRS 101 disclosure exemptions.

In these financial statements, the Company has applied the exemptions available under FRS 101 in respect of the following disclosures:

- Statement of Cash Flows and related notes
- disclosures in respect of transactions with wholly owned subsidiaries
- disclosures in respect of capital management
- the effects of new but not yet effective IFRSs
- disclosures in respect of the compensation of Key Management Personnel.

As the Group Financial Statements (presented on pages 148 to 210) include the equivalent disclosures, the Company has also taken the exemptions under FRS 101 available in respect of the following disclosures:

- IFRS 2 'Share-based Payment' in respect of Group settled share-based payments
- certain disclosures required by IFRS 13 'Fair Value Measurement' and the disclosures required by IFRS 7 'Financial Instruments: Disclosures'.

No individual profit and loss account is prepared as provided by section 408 of the Companies Act 2006.

Basis of accounting

The Company Financial Statements are prepared under the historical cost convention and on a going concern basis, in accordance with the Companies Act 2006.

The following paragraphs describe the main accounting policies, which have been applied consistently.

Estimates and judgements

The preparation of the Company Financial Statements in conformity with generally accepted accounting principles requires management to make estimates and judgements that affect the reported amounts of assets and liabilities at the date of the Financial Statements and the reported amounts of revenues and expenses during the reporting period. Actual results could differ from those estimates. There are no key judgements or significant estimates.

Foreign currencies

Foreign currency transactions, being transactions denominated in a currency other than the Company's functional currency, are translated into US dollars at average rates for the relevant monthly accounting periods, which approximate to actual rates.

Monetary assets and liabilities arising from foreign currency transactions are retranslated at exchange rates prevailing at the reporting date. Exchange gains and losses on loans and on short-term foreign currency borrowings and deposits are included within Finance expense. Exchange differences on all other foreign currency transactions are recognised in Operating profit.

Non-monetary items arising from foreign currency transactions are not retranslated in the Company's accounting records.

Taxation

The current tax payable is based on taxable profit for the year. Taxable profit differs from reported profit because taxable profit excludes items that are either never taxable or tax deductible or items that are taxable or tax deductible in a different period. The Company's current tax assets and liabilities are calculated using tax rates that have been enacted or substantively enacted by the reporting date.

Deferred tax is provided using the balance sheet liability method, providing for temporary differences between the carrying amounts of assets and liabilities for financial reporting purposes and the amounts used for taxation purposes. Deferred tax liabilities are recognised unless they arise from the initial recognition (other than in a business combination) of assets and liabilities in a transaction that affects neither the taxable profit nor the accounting profit. Deferred tax liabilities are not recognised to the extent they arise from the initial recognition of non-tax deductible goodwill. Deferred tax assets are recognised to the extent that there are future taxable temporary differences or it is probable that future taxable profit will be available against which the asset can be utilised. This requires judgements to be made in respect of the availability of future taxable income.

No deferred tax asset or liability is recognised in respect of temporary differences associated with investments in subsidiaries and branches where the Company is able to control the timing of reversal of the temporary differences and it is probable that the temporary differences will not reverse in the foreseeable future.

The Company's deferred tax assets and liabilities are calculated using tax rates that are expected to apply in the period when the liability is settled or the asset realised based on tax rates that have been enacted or substantively enacted by the reporting date.

Liabilities for uncertain tax positions require management to make judgements of potential exposures in relation to tax audit issues. Tax benefits are not recognised unless the tax positions will probably be accepted by the tax authorities. This is based upon management's interpretation of applicable laws and regulations and the expectation of how the tax authority will resolve the matter. Once considered probable of not being accepted, management reviews each material tax benefit and reflects the effect of the uncertainty in determining the related taxable result.

Liabilities for uncertain tax positions are measured using either the most likely amount or the expected value amount depending on which method the Company expects to better predict the resolution of the uncertainty.

The Company has applied the exemption under the IAS 12 'Income Taxes' amendment for recognising and disclosing information about deferred tax assets and liabilities related to top-up income taxes.

Investments

Fixed asset investments, including investments in subsidiaries, are stated at cost and reviewed for impairment if there are indications that the carrying value may not be recoverable.

Debtors

Amounts owed by Group undertakings are recognised initially at fair value. Subsequent to initial recognition they are measured at amortised cost using the effective interest method, less any impairment losses.

The recoverability of these balances has been assessed in accordance with IFRS 9 and no impairment has been identified. The amounts owed by Group undertakings are considered to have low credit risk, due to timely payment of interest and settlement of principal amount on agreed due dates, limiting the loss allowance to 12-month expected credit losses.

Amounts owed by Group undertakings are written off where there is no reasonable expectation of recovery. Impairment losses are presented as net impairment losses within Operating profit, any subsequent recoveries are credited against the same line.

Other payables

Liabilities included in Other payables are recognised initially at fair value. Subsequent to initial recognition they are remeasured at either amortised cost using the effective interest method or at fair value using an expected credit loss model.

Financial instruments

Interest-bearing loans are initially measured at fair value (with direct transaction costs being amortised over the life of the loan) and are subsequently measured at amortised cost using the effective interest method at each reporting date. Changes in carrying value are recognised in profit.

Share-based payments

The issuance by the Company to employees of its subsidiaries of a grant of awards over the Company's shares, represents additional capital contributions by the Company to its subsidiaries. An additional investment in subsidiaries results in a corresponding increase in shareholders' equity. The additional capital contribution is based on the fair value of the grant issued, allocated over the underlying grant's vesting period, less the market cost of shares charged to subsidiaries in settlement of such share awards.

Litigation

Through the normal course of business, the AstraZeneca Group is involved in legal disputes, the settlement of which may involve cost to the Company. A provision is made where an adverse outcome is probable and associated costs, including related legal costs, can be estimated reliably. In other cases, appropriate disclosures are included.

Notes to the Company Financial Statements

1 Fixed asset investments

	Investments in subsidiaries		
	Shares $m	Loans $m	Total $m
At 1 January 2022	49,581	16,043	65,624
Transfer to Debtors – amounts owed by Group undertakings	–	(1,531)	(1,531)
Capital reimbursement	(380)	–	(380)
Exchange	–	(161)	(161)
Amortisation	–	12	12
Disposals and other movements	(9)	–	(9)
At 31 December 2022	49,192	14,363	63,555
Additions during the year	**–**	**1,588**	**1,588**
Transfer to Debtors – amounts owed by Group undertakings	**–**	**(991)**	**(991)**
Capital reimbursement	**(131)**	**–**	**(131)**
Exchange	**–**	**158**	**158**
Amortisation	**–**	**12**	**12**
Other movements	**(2)**	**–**	**(2)**
At 31 December 2023	**49,059**	**15,130**	**64,189**

Loans to subsidiaries consists of bonds which are issued externally and are issued back to Group undertakings with comparable terms on interest rates and are repayable on maturity, details of which are disclosed in Note 3. The recoverability of these inter-company loans has been assessed in accordance with IFRS 9 with no impairment identified. The inter-company balances are considered to have low credit risk due to timely payment of interest and settlement of principal amount on agreed due dates, limiting the loss allowance to 12-month expected credit losses. In 2023, there have been no credit losses (2022: $nil).

The other movements comprise $2m representing revaluation of carrying value of a guarantee provided to Group companies as explained in Notes 2 and 3.

2 Other payables

	2023 $m	2022 $m
Amounts falling due within one year		
Other creditors	**214**	184
Deferred income	**2**	3
Amounts owed to Group undertakings	**–**	7
	216	194
Amounts falling due after more than one year		
Other creditors	**21**	23
	21	23

Other creditors due after more than one year include an amount representing the carrying value of the guarantee provided by the Company to its subsidiary for the bonds issued externally as explained in Note 3. As at 31 December 2023, the carrying value of the guarantee was $21m (2022: $23m).

3 Loans and borrowings

		Repayment dates	2023 $m	2022 $m
Amounts due within one year				
Amounts owed to Group undertakings (unsecured)				
7.2% Loan	US dollars	2023	–	283
Interest-bearing loans and borrowings (unsecured)				
0.3% Callable bond	US dollars	2023	–	1,399
Floating rate notes	US dollars	2023	–	400
3.5% Callable bond	US dollars	2023	–	849
0.75% Callable bond	euros	2024	**995**	–
2024 Floating rate bank loans	US dollars	2024	**2,000**	–
Total amounts due within one year			**2,995**	2,931
Amounts due after more than one year				
Interest-bearing loans and borrowings (unsecured)				
0.75% Callable bond	euros	2024	–	957
2024 Floating rate bank loans	US dollars	2024	–	1,998
3.375% Callable bond	US dollars	2025	**1,994**	1,992
0.7% Callable bond	US dollars	2026	**1,196**	1,195
3.625% Callable bond	euros	2027	**829**	–
3.125% Callable bond	US dollars	2027	**747**	746
1.25% Callable bond	euros	2028	**879**	845
4% Callable bond	US dollars	2029	**995**	995
0.375% Callable bond	euros	2029	**881**	846
1.375% Callable bond	US dollars	2030	**1,294**	1,293
5.75% Non-callable bond	pound sterling	2031	**444**	420
3.75% Callable bond	euros	2032	**827**	–
6.45% Callable bond	US dollars	2037	**2,725**	2,724
4% Callable bond	US dollars	2042	**989**	988
4.375% Callable bond	US dollars	2045	**981**	981
4.375% Callable bond	US dollars	2048	**738**	737
2.125% Callable bond	US dollars	2050	**487**	487
3% Callable bond	US dollars	2051	**735**	735
Total amounts due after more than one year			**16,741**	17,939
Total loans and borrowings			**19,736**	20,870

	2023 $m	2022 $m
Loans and borrowings are repayable:		
After five years from balance sheet date	**11,096**	11,051
From two to five years	**3,651**	3,933
From one to two years	**1,994**	2,955
Within one year	**2,995**	2,931
Total unsecured	**19,736**	20,870

All borrowings are issued with fixed interest rates, with the exception of the $2bn USD 2024 floating rate loans, which transitioned from LIBOR to a rate based on compounded daily USD Secured Overnight Funding Rate (SOFR) during the year.

In addition, the Company acts as guarantor for bonds issued by its wholly owned subsidiaries, AstraZeneca Finance LLC and AstraZeneca Finance and Holdings Inc.. AstraZeneca Finance LLC is the issuer of $1,600m 0.700% Notes due 2024, $1,250m 1.200% Notes due 2026, $1,250m 1.750% Notes due 2028, $1,100m 4.875% Notes due 2028, $650m 4.900% Notes due 2030, $750m 2.250% Notes due 2031, and $500m 4.875% Notes due 2033 (the 'AstraZeneca Finance Notes') and AstraZeneca Finance and Holdings Inc., had a $2bn bank loan which was repaid during 2023. Each series of AstraZeneca Finance Notes has been fully and unconditionally guaranteed by the Company. Each of the guarantees issued by AstraZeneca PLC is full and unconditional and joint and several.

The guarantee by AstraZeneca PLC of the AstraZeneca Finance Notes is the senior unsecured obligation of AstraZeneca PLC and ranks equally with all of AstraZeneca PLC's existing and future senior unsecured and unsubordinated indebtedness. Each guarantee by AstraZeneca PLC is effectively subordinated to any secured indebtedness of AstraZeneca PLC to the extent of the value of the assets securing such indebtedness. The AstraZeneca Finance Notes are structurally subordinated to indebtedness and other liabilities of the subsidiaries of AstraZeneca PLC, none of which guarantee the AstraZeneca Finance Notes.

4 Called-up share capital
Details of share capital movements in the year are included in Note 24 to the Group Financial Statements.

5 Contingent liabilities
The Company has guaranteed the external borrowing of a subsidiary in the amount of $nil (2022: $286m).

Vermont US Attorney Investigation
In April 2020, AstraZeneca received a Civil Investigative Demand from the US Attorney's Office in Vermont and the Department of Justice, Civil Division, seeking documents and information relating to AstraZeneca's relationships with electronic health-record vendors. AstraZeneca is cooperating with this enquiry.

AZD1222 Securities Litigation
In January 2021, putative securities class action lawsuits were filed in the US District Court for the Southern District of New York (District Court) against AstraZeneca PLC and certain officers, on behalf of purchasers of AstraZeneca publicly traded securities during a period later amended to cover 15 June 2020 through 29 January 2021. The Amended Complaint alleges that defendants made materially false and misleading statements in connection with the development of AZD1222, AstraZeneca's vaccine for the prevention of COVID-19. In September 2022, the District Court granted AstraZeneca's motion to dismiss the Amended Complaint with prejudice. In May 2023, the US Court of Appeals for the Second Circuit affirmed the dismissal. The matter is now concluded.

6 Statutory and other information
The Directors of the Company were paid by another Group company in 2023 and 2022.

7 Subsequent events
There were no material subsequent events.

Group Financial Record

For the year ended 31 December	2019 $m	2020 $m	2021 $m	2022 $m	**2023 $m**
Revenue and profits					
Product Sales	23,565	25,890	36,541	42,998	**43,789**
Alliance Revenue	62	190	388	755	**1,428**
Collaboration Revenue	757	537	488	598	**594**
Cost of sales	(4,921)	(5,299)	(12,437)	(12,391)	**(8,268)**
Distribution expense	(339)	(399)	(446)	(536)	**(539)**
Research and development expense	(6,059)	(5,991)	(9,736)	(9,762)	**(10,935)**
Selling, general and administrative expense	(11,682)	(11,294)	(15,234)	(18,419)	**(19,216)**
Other operating income and expense	1,541	1,528	1,492	514	**1,340**
Operating profit	2,924	5,162	1,056	3,757	**8,193**
Finance income	172	87	43	95	**344**
Finance expense	(1,432)	(1,306)	(1,300)	(1,346)	**(1,626)**
Share of after tax losses in associates and joint ventures	(116)	(27)	(64)	(5)	**(12)**
Profit/(loss) before tax	1,548	3,916	(265)	2,501	**6,899**
Taxation	(321)	(772)	380	792	**(938)**
Profit for the period	1,227	3,144	115	3,293	**5,961**
Other comprehensive income/(expense) for the period, net of tax	(611)	1,608	(145)	(878)	**733**
Total comprehensive income/(expense) for the period	616	4,752	(30)	2,415	**6,694**
Profit attributable to:					
Owners of the Parent	1,335	3,196	112	3,288	**5,955**
Non-controlling interests	(108)	(52)	3	5	**6**
Earnings per share					
Basic earnings per $0.25 Ordinary Share	$1.03	$2.44	$0.08	$2.12	**$3.84**
Diluted earnings per $0.25 Ordinary Share	$1.03	$2.44	$0.08	$2.11	**$3.81**
Dividends	$2.80	$2.80	$2.80	$2.90	**$2.90**

Additional Information

Contents

Shareholder information **225**

Directors' Report **227**

Sustainability supplementary information **230**

Trade Marks **231**

Glossary **232**

Cautionary statement regarding forward-looking statements **236**

Shareholder information

This section of the Annual Report contains information for shareholders that is required by regulation in the UK. Further information that may be of use to shareholders is available on the Shareholder information page of our website at www.astrazeneca.com. Additional information required by SEC regulations is included in AstraZeneca's Form 20-F filing for 2023, which is available on the SEC website at www.sec.gov.

The principal markets for trading in AstraZeneca shares are the London Stock Exchange, Nasdaq Stockholm and the Nasdaq Global Select Market (Nasdaq). AstraZeneca shares were listed on Nasdaq on 25 September 2020, prior to which they were listed on the New York Stock Exchange. Ordinary Shares of $0.25 each in AstraZeneca PLC are listed on the London Stock Exchange and the shareholder register is maintained by Equiniti Limited, the Ordinary Share registrar. Shares listed on Nasdaq Stockholm are issued under the Euroclear Services Agreement by Euroclear Sweden AB, the Swedish Central Securities Depositary. Shares listed on Nasdaq are in the form of American Depositary Shares (ADSs), evidenced by American Depositary Receipts (ADRs) issued by the Company's ADR depositary, Deutsche Bank Trust Company Americas (Deutsche Bank). Two ADSs are equivalent to one Ordinary Share. Before 27 July 2015, the ratio was one ADS per one Ordinary Share. Shares are listed on all three markets under the stock symbol AZN.

Ordinary Share registrar

Equiniti Limited
Aspect House
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Lancing
West Sussex
BN99 6DA
UK
Tel (freephone in UK): +44 (0)800 389 1580

Swedish Central Securities Depositary

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ADR depositary

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c/o Equiniti Trust Company, LLC
6201 15th Avenue
Brooklyn NY 11219
USA
Tel (toll free in the US): +1 (888) 697 8018
Tel (outside US): +1 (718) 921 8137
adr@equiniti.com

Annual General Meeting (AGM)

The 2024 AGM will be held on 11 April 2024 and further details will be set out in the Notice of Meeting. If you hold shares listed on Nasdaq Stockholm or hold ADRs, information relating to voting and participation will be included in the relevant Notice of AGM. If you hold your shares through a nominee, your nominee provider will be able to advise you of their arrangements in relation to voting and participation.

Dividends

Dividend dates for 2024 are shown in the financial calendar below. A first interim dividend is normally announced in July/August and paid in September and a second interim dividend is normally announced in January/February and paid in March. Dividends are paid in GBP, SEK and USD, depending on where the eligible shares are listed.

Financial calendar

Event	Provisional date
Second interim dividend for 2023	
Ex-dividend date	22 February 2024
Record date	23 February 2024
Payment date	25 March 2024
Annual General Meeting (AGM)	11 April 2024
Announcement of first quarter results for 2024	25 April 2024
Announcement of second quarter and half-year results for 2024	25 July 2024
First interim dividend for 2024	
Ex-dividend date	8 August 2024
Record date	9 August 2024
Payment date	9 September 2024
Announcement of third quarter results for 2024	12 November 2024
Financial year end	31 December 2024

Related party transactions

During the period 1 January 2024 to 31 January 2024, there were no transactions, loans, or proposed transactions between the Company and any related parties which were material to either the Company or the related party, or which were unusual in their nature or conditions (see also Note 31 to the Financial Statements on page 210).

Conflicts of interest

The Articles enable the Directors to authorise any situation in which a Director has an interest that conflicts or has the potential to conflict with the Company's interests and which would otherwise be a breach of the Director's duty, under section 175 of the Companies Act 2006. The Board has a formal system in place for Directors to declare such situations to be considered for authorisation by those Directors who have no interest in the matter being considered.

In deciding whether to authorise a situation, the non-conflicted Directors must act in the way they consider, in good faith, would be most likely to promote the success of the Company, and they may impose limits or conditions when giving the authorisation, or subsequently, if they think this is appropriate. Situations considered by the Board and authorisations given are recorded in the Board minutes and in a register of conflicts maintained by the Company Secretary and are reviewed annually by the Board. The Board believes that this system operates effectively.

Shareholder fraud warning

Shareholders of AstraZeneca and many other companies have reported receiving unsolicited calls and correspondence relating to their shareholdings and investment matters. Shareholders are advised to be very cautious of any unsolicited approaches and to note that reputable firms authorised by the Financial Conduct Authority (FCA) are very unlikely to make such approaches. Such approaches are likely to be part of a 'boiler room scam' attempting to defraud shareholders.

Shareholders are advised to familiarise themselves with the information on scams available on the FCA website, www.fca.org.uk/consumers and within the FAQs in the Investors section of our website, www.astrazeneca.com.

Any suspected scams or fraudulent approaches should be reported to the FCA via its website and to AstraZeneca's Ordinary Share registrar, using the contact details on this page.

For further information on dividends declared, see the Shareholder information section of our website, www.astrazeneca.com.

Issued share capital, shareholdings and share prices

At 31 December 2023, the Company had 66,385 registered holders of 1,550,162,626 Ordinary Shares. There were 168,456 holders of Ordinary Shares held under the Euroclear Services Agreement, representing 10.4% of the issued share capital of the Company and 1,595 registered holders of ADSs, representing 18.7% of the issued share capital of the Company.

Ordinary Shares in issue

	2023	2022	2021
Ordinary Shares in issue – millions			
At year-end	**1,550**	1,550	1,549
Weighted average for year	**1,549**	1,548	1,418
Stock market closing price per Ordinary Share (London Stock Exchange)			
Highest (pence)	**12294**	11440	9444
Lowest (pence)	**9900**	8282	6794
At year end (pence)	**10600**	11218	8678

Analysis of shareholdings as a percentage of issued share capital at 31 December

Number of Ordinary Shares[1]	**2023 %**	2022 %	2021 %
1-250	**0.3**	0.3	0.3
251-500	**0.3**	0.3	0.3
501-1,000	**0.4**	0.4	0.4
1,001-5,000	**0.5**	0.5	0.6
5,001-10,000	**0.2**	0.2	0.2
10,001-50,000	**1.1**	1.1	1.1
50,001-1,000,000	**11.3**	1.1	1.1
Over 1,000,000	**85.9**	96.1	96.0

[1] Includes Euroclear and ADR holdings.

US holdings

At 31 January 2024, the proportion of Ordinary Shares represented by ADSs was 18.7% of the issued share capital of the Company. At 31 January 2024, there were 66,104 registered holders of Ordinary Shares, of which 609 were based in the US and there were 1,588 record holders of ADRs, of which 1,571 were based in the US.

Exchange controls and other limitations affecting security holders

Other than certain economic sanctions, which may be in force from time to time, there are no governmental laws, decrees or regulations in the UK restricting the import or export of capital or affecting the remittance of dividends, interest or other payments to non-resident holders of Ordinary Shares or ADRs.

Other than certain economic sanctions, which may be in force from time to time, there are no limitations under English law or the Articles on the right of non-resident or foreign owners to be the registered holders of, or to exercise voting rights in relation to, Ordinary Shares or ADRs or to be registered holders of notes or debentures of the Company or its wholly owned subsidiaries, Zeneca Wilmington Inc. and AstraZeneca Finance LLC.

Information on the Company's share price, including historical closing prices and volumes, and an interactive share price graph can be found on the Investor Relations section on our website, www.astrazeneca.com.

Directors' Report

The Directors' Report includes information required to be given in accordance with the Companies Act 2006.

Relevant information below, which is contained elsewhere in the Annual Report, is incorporated by cross reference herein.

Subsidiaries and principal activities

The Company is the holding company for a group of subsidiaries whose principal activities are described in this Annual Report. The Group's subsidiaries and their locations are set out in Group Subsidiaries and Holdings in the Financial Statements from page 211.

Branches and countries in which the Group conducts business

In accordance with the Companies Act 2006, we disclose below countries of our representative, scientific or branch offices outside the UK established through various subsidiaries of the Company:

Algeria, Angola, Costa Rica, Cuba, Denmark, Egypt, Georgia, Ghana, Jordan, Lebanon, Norway, Portugal, Romania, Russia, Saudi Arabia, Serbia, Slovakia, Slovenia, Syria, Ukraine, United Arab Emirates, the US and Vietnam.

Disclosure of information to auditors

The Directors who held office at the date of approval of this Annual Report confirm that, so far as they are each aware, there is no relevant audit information of which the Company's auditors are unaware; and each Director has taken all the steps that he or she ought to have taken as a Director to make himself or herself aware of any relevant audit information and to establish that the Company's auditors are aware of that information.

Going concern accounting basis

Information on the business environment in which AstraZeneca operates, including the factors underpinning the industry's future growth prospects, is included in the Strategic Report. Details of the product portfolio of the Group are contained in the Strategic Report (in the Therapy Area Review from page 16). For information on patent expiry dates for key marketed products, see the Patent Expiries of Key Marketed Products Supplement on our website, www.astrazeneca.com/annualreport2023. Our approach to product development is covered in detail with additional information by Therapy Area in the Strategic Report. For information on our development pipeline, see the Development Pipeline Supplement on our website, www.astrazeneca.com/annualreport2023.

The financial position of the Group, its cash flows, liquidity position and borrowing facilities are described in the Financial Review from page 58. In addition, Note 28 to the Financial Statements from page 195 includes the Group's objectives, policies and processes for: managing capital; financial risk management objectives; details of its financial instruments and hedging activities; and its exposures to credit, market and liquidity risk. Further details of the Group's cash balances and borrowings are included in Notes 17 and 19 to the Financial Statements from page 178.

Having assessed the Principal Risks and other matters considered in connection with the Viability statement on page 55, the Board considers it appropriate to adopt the going concern basis of accounting in preparing the Annual Report and Financial Statements.

Shares

A shareholders' resolution was passed at the 2023 AGM authorising the Company to purchase its own shares. The Company did not purchase any of its own shares in 2023. On 31 December 2023, the Company did not hold any shares in treasury.

Rights, preferences and restrictions attaching to shares

As at 31 December 2023, the Company had 1,550,162,626 Ordinary Shares and 50,000 Redeemable Preference Shares in issue. The Ordinary Shares represent 99.98% and the Redeemable Preference Shares represent 0.02% of the Company's total share capital (these percentages have been calculated by reference to the 8am WM/Reuters USD/GBP exchange rate on 29 December 2023).

As agreed by the shareholders at the Company's AGM held on 29 April 2010, the Articles were amended with immediate effect to remove the requirement for the Company to have an authorised share capital, the concept of which was abolished under the Companies Act 2006. Each Ordinary Share carries the right to vote at general meetings of the Company. The rights and restrictions attaching to the Redeemable Preference Shares differ from those attaching to Ordinary Shares as follows:

- The Redeemable Preference Shares carry no rights to receive dividends.
- The holders of Redeemable Preference Shares have no rights to receive notices of, attend or vote at general meetings except in certain limited circumstances. They have one vote for every 50,000 Redeemable Preference Shares held.
- On a distribution of assets of the Company, on a winding-up or other return of capital (subject to certain exceptions), the holders of Redeemable Preference Shares have priority over the holders of Ordinary Shares to receive the capital paid up on those shares.
- Subject to the provisions of the Companies Act 2006, the Company has the right to redeem the Redeemable Preference Shares at any time on giving not less than seven days' written notice.

There are no specific restrictions on the transfer of shares in the Company, which is governed by the Articles and prevailing legislation.

The Company is not aware of any agreements between holders of shares that may result in restrictions on the transfer of shares or that may result in restrictions on voting rights. The Company is also not aware of any arrangements under which financial rights are held by a person other than the holder of the shares.

Action necessary to change the rights of shareholders

In order to vary the rights attached to any class of shares, the consent in writing of the holders of three quarters in nominal value of the issued shares of that class or the sanction of a special resolution passed at a general meeting of such holders is required.

Changes in share capital

Changes in the Company's Ordinary Share capital during 2023, including details of the allotment of new shares under the Company's share plans, are given in Note 24 to the Financial Statements from page 192.

Employee share trust ownership rights

The trustee of the AstraZeneca Employee Benefit Trust (the EBT, the Trustee) will not exercise voting rights attached to shares held in the EBT (Shares). Any decision as to acceptance or rejection of an offer for Shares subject to subsisting awards would be made by the Trustee, having regard to the interests of award holders.

During 2023, a further employee benefit trust was established for the benefit of employees based in Canada (the Canada EBT). The trustees of the Canada EBT will not exercise voting rights attached to shares held in the Canada EBT.

For more information on shares, see Issued share capital, shareholdings and share prices on page 226.

Major shareholdings

At 31 December 2023, the following persons had disclosed an interest in the issued Ordinary Share capital of the Company in accordance with the requirements of rules 5.1.2 or 5.1.5 of the UK Listing Authority's Disclosure Guidance and Transparency Rules.

Changes in the percentage ownerships disclosed by major shareholders are set out below. Major shareholders do not have different voting rights.

			Number of Ordinary Shares disclosed as a percentage of issued share capital at:				
Shareholder	Date of the latest disclosure to the Company[1]	Number of Ordinary Shares disclosed	Date of the latest disclosure to the Company	31 December 2021	31 December 2022	31 December 2023	**31 January 2024**
BlackRock, Inc.	4 December 2009	100,885,181	6.96	6.51	6.51	6.51	**6.51**
Investor AB	3 April 2019	51,587,810	3.93	3.33	3.33	3.33	**3.33**
The Capital Group Companies, Inc.	17 July 2018	63,802,495	5.04	4.12	4.12	4.12	**4.12**
Wellington Management Group LLP[2]	21 July 2020	65,120,892	4.96	4.20	4.20	4.20	**4.20**
Wellington Management Company LLP[2]	21 July 2020	65,118,411	4.96	4.20	4.20	4.20	**4.20**

[1] Since the date of disclosure to the Company, the interest of any person listed above in Ordinary Shares may have increased or decreased. No requirement to notify the Company of any increase or decrease arises unless the holding passes a notifiable threshold in accordance with rules 5.1.2 or 5.1.5 of the UK Listing Authority's Disclosure Guidance and Transparency Rules.

[2] The Company was notified at the time of the disclosure that Wellington Management Company LLP was a subsidiary of Wellington Management Group LLP and that the shareholding percentage notified by Wellington Management Company LLP was included within the aggregate shareholding percentage notified by Wellington Management Group LLP.

So far as the Company is aware, no other person held a notifiable interest in the issued Ordinary Share capital of the Company. No changes to major shareholdings were disclosed to the Company between 31 December 2023 and 31 January 2024.

So far as the Company is aware, it is neither directly nor indirectly owned or controlled by one or more corporations or by any government.

The Company does not know of any arrangements, the operation of which might result in a change in the control of the Company.

Directors', officers' and SET shareholdings

At 31 January 2024, the total amount of the Company's voting securities owned by Directors and officers of the Company and other SET members was:

Title of class	Amount owned	Percentage of class
Ordinary Shares	**804,434**	**0.05%**

Options to purchase securities from registrant or subsidiaries

(a) At 31 January 2024, options outstanding to subscribe for Ordinary Shares were:

Number of shares	Subscription price (pence)	Normal expiry date
1,176,592	**3597-9064**	2023-2029

The weighted average subscription price of options outstanding at 31 January 2024 was 7086 pence. All options were granted under Company employee share schemes.

(b) None of the options included in paragraph (a) have been granted to officers of the Company and SET members.

(c) During 2023, no options were held by Directors.

During the period 1 January 2024 to 31 January 2024, no Director was granted or exercised any options.

Distributions to shareholders – dividends for 2023

Details of our distribution policy are set out in the Financial Review from page 58 and Note 28 to the Financial Statements from page 195.

The Company's dividend for 2023 of $2.90 (227.8 pence, 30.29 SEK) per Ordinary Share is estimated to amount to, in aggregate, a total dividend payment to shareholders of $4,494 million. Two employee share trusts, AstraZeneca EBT and AstraZeneca Share Trust Limited, waived their rights to a dividend on the Ordinary Shares they hold and instead received nominal dividends.

Articles of Association

AstraZeneca PLC's current Articles were adopted by shareholders at the Company's AGM held on 27 April 2023. Any amendment to the Articles requires the approval of shareholders by a special resolution at a general meeting of the Company.

Objects

The Company's objects are unrestricted.

Directors

The Board has the authority to manage the business of the Company, for example, through powers to allot and repurchase its shares, subject where required to shareholder resolutions. Subject to certain exceptions, Directors do not have power to vote at Board meetings on matters in which they have a material interest.

The quorum for meetings of the Board is a majority of the full Board, of whom at least four must be Non-Executive Directors. In the absence of a quorum, the Directors do not have power to determine compensation arrangements for themselves or any member of the Board.

The Board may exercise all the powers of the Company to borrow money. Variation of these borrowing powers would require the passing of a special resolution of the Company's shareholders.

All Directors must retire from office at the Company's AGM each year and may present themselves for election or re-election. Directors are not prohibited, upon reaching a particular age, from submitting themselves for election or re-election.

General meetings

AGMs require 21 clear days' notice to shareholders. Subject to the Companies Act 2006, other general meetings require 14 clear days' notice.

For all general meetings, a quorum of two shareholders present in person or by proxy, and entitled to vote on the business transacted, is required unless each of the two persons present is a corporate representative of the same corporation, or each of the two persons present is a proxy of the same shareholder.

For more information on dividend distribution, the AGM and results announcements, see Financial calendar on page 225.

For more information on the Directors, see Board of Directors on pages 78 and 79.

Shareholders and their duly appointed proxies and corporate representatives are entitled to be admitted to general meetings.

Limitations on the rights to own shares

There are no limitations on the rights to own shares.

Gender diversity

	Directors of the Company's subsidiaries*
Men	(60%) 237
Women	(40%) 161
Total	**398**

	Senior Executive Team*
Men	(58%) 7
Women	(42%) 5
Total	**12**

All numbers as at 31 December 2023.

* For the purposes of section 414C(8)(c)(ii) of the Companies Act 2006, 'Senior Managers' are the Senior Executive Team (SET), the Directors of all of the subsidiaries of the Company and other individuals holding named positions within those subsidiaries. Individuals on multiple boards are counted once.

Stakeholder engagement

The discussion on stakeholder engagement and the impact of these interactions is contained in Connecting with our stakeholders from page 84 and throughout the Strategic Report. This includes engagement with our employees, suppliers and other stakeholders, as well as the impact of our operations on the community and environment.

Information on how we encourage employee involvement in the Company's performance is set out in People and Sustainability from page 43. Details of some of the employee share plans are described in the Directors' Remuneration Report from page 102, and in Note 29 to the Financial Statements from page 201. All employees are provided with information on matters of concern to them through regular meetings and updates on the Group's intranet and internal social media. 'Townhall' meetings and Q&A sessions are hosted regularly by members of senior management, including the SET, including global and targeted broadcasts on internal social media. During 2023, these broadcasts provided updates on the business, including pipeline developments and leadership changes, as well as the Group's response to global issues such as climate change. In addition, information about the Group's quarterly results is shared with employees. These updates inform employees of the financial and economic factors which affect the performance of the Group.

Political donations

Neither the Company nor its subsidiaries made any EU political donations or incurred any EU political expenditure in 2023 and they do not intend to do so in the future in respect of which shareholder authority is required, or for which disclosure in this Annual Report is required, under the Companies Act 2006. However, to enable the Company and its subsidiaries to continue to support interest groups or lobbying organisations concerned with the review of government policy or law reform without inadvertently breaching the Companies Act 2006, which defines political donations and other political expenditure in broad terms, a resolution will be put to shareholders at the 2024 AGM, similar to that passed at the 2023 AGM, to authorise the Company and its subsidiaries to:

- make donations to political parties or independent election candidates
- make donations to political organisations other than political parties
- incur political expenditure, up to an aggregate limit of $250,000.

Corporate political contributions in the US are permitted in defined circumstances under the First Amendment of the US Constitution and are subject to both federal and state laws and regulations. In 2023, the Group's US legal entities made contributions amounting in aggregate to $1,687,650 (2022: $1,316,950) to national political organisations, state-level political party committees and to campaign committees of various state candidates. No corporate political donations were made at the federal level and all contributions were made only where allowed by US federal and state law. We publicly disclose details of our corporate US political contributions, which can be found on our website, www.astrazeneca-us.com/sustainability/corporate-transparency.

The annual corporate contributions budget is reviewed and approved by the US Vice-President, Corporate Affairs and the President of our US business to ensure robust governance and oversight. US citizens or individuals holding valid green cards exercised decision making over the contributions and the funds were not provided or reimbursed by any non-US legal entity. Such contributions do not constitute political donations or political expenditure for the purposes of the Companies Act 2006 and were made without any involvement of persons or entities outside the US.

Significant agreements

There are no significant agreements to which the Company is a party that take effect, alter or terminate on a change of control of the Company following a takeover bid. There are no persons with whom we have contractual or other arrangements, who are deemed by the Directors to be essential to our business.

Use of financial instruments

The Notes to the Financial Statements, including Note 28 from page 195, include further information on our use of financial instruments.

Insurance and indemnities

The Company maintained directors' and officers' liability insurance cover throughout 2023. The Directors are also able to obtain independent legal advice at the expense of the Company, as necessary, in their capacity as Directors.

The Company has entered into a deed of indemnity in favour of each Board member since 2006. These deeds of indemnity are still in force and provide that the Company shall indemnify the Directors to the fullest extent permitted by law and the Articles, in respect of all losses arising out of, or in connection with, the execution of their powers, duties and responsibilities as Directors of the Company or any of its subsidiaries. This is in line with current market practice and helps us attract and retain high-quality, skilled Directors.

Compliance requirements under Listing Rule 9.8.4

The only matter to report is the shareholder waiver of dividends on page 228.

Directors' Report

The Directors' Report, which has been prepared in accordance with the requirements of the Companies Act 2006, comprises the following sections:

- Chair's Statement
- Chief Executive Officer's Review
- Therapy Area Review
- Business Review
- Risk Overview
- Financial Review: Financial risk management
- Corporate Governance: including the Corporate Governance Overview, Corporate Governance Report, Nomination and Governance Committee Report, Science Committee Report, Sustainability Committee Report and Audit Committee Report
- Directors' responsibility statement
- Shareholder information
- Sustainability supplementary information

and has been approved by the Board and signed on its behalf.

On behalf of the Board

A C N Kemp
Company Secretary
8 February 2024

Sustainability
supplementary information

External assurance

Bureau Veritas has provided independent external assurance to a limited level on the following sustainability information contained within this Annual Report:

- Positively impacting people, society and the planet see page 5.
- People and Sustainability, Key Performance Indicators, see page 15.
- Bioethics, including Clinical trial transparency, Research use of human biological samples and genomic information, and Animals in research, see page 36.
- Healthcare in low- and middle-income countries, see page 39.
- Responsible sales and marketing, see page 39.
- Anti-bribery and anti-corruption, see page 39.
- Responsible supply chain, see page 40.
- People and Sustainability, see page 43.
- Human rights, see page 45.
- Employee relations, see page 45.
- Workforce safety and health, see page 45.
- Sustainability, including Overview, Our approach to sustainability, Governance, Benchmarking and assurance, and Sustainability strategy, see page 46.
- Access to healthcare, including Equitable access, Affordability and pricing, and Health system resilience, see page 47.
- Environmental protection, including Ambition Zero Carbon, Product sustainability, and Natural resources, see page 48.
- Ethics and transparency, including Code of Ethics, see page 49.
- EU Taxonomy Disclosure, see page 50.
- Task Force on Climate-related Financial Disclosures Summary Statement, see pages 51 to 53. See our full TCFD Statement on our website, www.astrazeneca.com/annualreport2023.
- GHG reporting, see this page.

BV Used throughout this Annual Report to denote the sustainability information listed above, which has been independently assured by Bureau Veritas.

Based on the evidence provided and subject to the scope, objectives and limitations defined in the full assurance statement, nothing has come to the attention of Bureau Veritas causing them to believe that the sustainability information contained within this Annual Report is materially misstated. Bureau Veritas is a professional services company that has a long history of providing independent assurance services in environmental, health, safety, social and ethical management and disclosure.

The full assurance statement, which includes Bureau Veritas' scope of work, methodology, overall opinion, and limitations and exclusions, is available on our website, www.astrazeneca.com/sustainability/resources.html.

For more information, see Environmental protection from page 48.

For more information, see our Sustainability Report on our website, www.astrazeneca.com/sustainability.

GHG reporting BV

We have reported on all of the emission sources required under the Streamlined Energy and Carbon Reporting (SECR). These sources fall within our Consolidated Financial Statements. We do not have responsibility for any emission sources that are not included in our Consolidated Financial Statements.

Global GHG emissions data for the period 1 January 2023 to 31 December 2023[1]

			Tonnes CO_2e
	2023	2022	2021
Emissions from: Scope 1: Combustion of fuel and operation of facilities[2,5]	**180,898**	237,703	239,468
Scope 2 (Market-based): Electricity (net of market instruments), heat, steam and cooling purchased for own use[3,5]	**19,940**	18,491	21,135
Scope 2 (Location-based): Electricity, heat, steam and cooling purchased for own use[3,5]	**183,332**	180,403	189,395
Company's chosen intensity measurement: Scope 1 + Scope 2 (Market-based) emissions reported above normalised to million US dollar revenue	**4.38**	5.78	6.39
Scope 3 Total: Emissions from all 15 GHG Protocol Scope 3 Categories	**6,736,878**	6,167,415	5,925,850
Scope 3 intensity measurement: Scope 3 emissions from all 15 GHG Protocol Scope 3 Categories normalised to million US dollar revenue	**147.06**	139.06	145.41
			MegaWatt hours (MWh)
Total energy consumption[4,5]	**1,511,334**	1,568,815	1,667,765

1 Regular review of the data is carried out to ensure accuracy, consistency and reflect major business change. This has led to changes in data in previous years. The majority of the adjustments made are not material individually, except for (i) Scope 1: Combustion of fuel and operations facilities, (ii) Scope 2 (Location-based): Electricity, heat, steam and cooling purchased for own use, (iii) Company's chosen intensity measurement: Scope 1 + Scope 2 (Market-based) emissions reported above normalised to million US dollar revenue, as a result of a divestment in manufacturing facility, update to using IPCC AR5 Global Warming Potentials (GWPs) from IPCC AR4 GWPs for calculating process, fugitive and solvent emissions and reporting of fuel volume in US & EUCAN to represent business activity. Additionally (iv) Total energy consumption data that has also changed. For (v) most material changes are: Scope 3 Category 1 purchased goods and services (methodology updated to exclude spend based emissions associated with royalty payments); (vi) Scope 3 Category 8 upstream leased assets (methodology updated to calculate GHG emissions in leased office space based on internal benchmark for office space energy consumption from mixed-use space); (vii) Scope 3 Category 11 use of sold products (methodology update to reflect IPCC AR5 GWPs from AR4 GWPs for calculating emissions associated with the patient use of sold inhalation products); and (viii) Scope 3 Category 12 end of life treatment of sold products (methodology updated to reflect GHG emissions accounted for in Scope 3 Category 11 use of sold products and remove double counting of GHG emissions).

2 Included in this section are GHGs from direct fuel combustion, process and engineering emissions at our sites and from fuel use in our vehicle fleet.

3 GHGs from imported electricity are calculated using the GHG Protocol Scope 2 Guidance (January 2015) requiring dual reporting using two emissions factors for each site – Market-based and Location-based. Our corporate emissions reporting and targets follow the Market-based approach. We have used the GHG Protocol Corporate Accounting and Reporting Standard (revised edition). Emission factors for electricity have been derived from the International Energy Agency, USEPA eGRID, US Green-e and the Association of Issuing Bodies databases and for all other fuels and emission sources from the 2006 IPCC Guidelines for National Greenhouse Gas Inventories.

4 The aggregate of: (i) the annual quantity of energy consumed from activities for which the Company is responsible, including the combustion of fuel at a facility or the operation of any facility; and (ii) the annual quantity of energy consumed resulting from the purchase of electricity, heat, steam or cooling by the Company for its own use.

5 Under the Companies (Directors' Report) and Limited Liability Partnerships (Energy and Carbon Report) Regulations 2018, the Company needs to disclose what proportion of this figure relates to energy use in the UK and offshore area. For 2023, the proportion of total global energy and emissions originating from AstraZeneca's UK and offshore area footprint were as follows: energy use 295 GWh (20%); Scope 1 site energy and road fleet emissions 28 $ktCO_2e$ (14%); Scope 2 site imported energy emissions using Market-based accounting 0 $ktCO_2e$ (0%) and Scope 2 site imported energy emissions using Location-based accounting 17 $ktCO_2e$ (9%). In the period covered by the report AstraZeneca has installed LED lighting, upgraded chillers, improved controls for heating, ventilation and air conditioning systems, continued improvements for the combined heat and power plant, and maintained ISO 50001 certification at the Macclesfield facility, UK. At the manufacturing site in Liverpool, UK new efficient electric steam boilers have been installed.

Trade Marks

AstraZeneca, the AstraZeneca logotype, and the AstraZeneca symbol are all trade marks of the Group.

The following medicine names which appear in italics in this Annual Report are trade marks of the Group:

Trade mark			
Airsupra	*Daliresp*	*Lokelma*	*Strensiq*
Andexxa	*Daxas*	*Lumoxiti*	*Symbicort*
Arimidex[1]	*Epanova*	*Lynparza*	*Symbicort Turbuhaler*
Atacand[2]	*Evusheld*	*Movantik*	*Symlin*
Atacand HCT	*Farxiga*	*Moventig*	*Synagis*[5]
Atacand Plus[2]	*Fasenra*	*Nexium*	*Tagrisso*
BCise	*Faslodex*	*Ondexxya*	*Toprol-XL*
Betaloc	*Fluenz*	*Onglyza*	*Trixeo*
Bevespi Aerosphere	*FluMist*	*Orpathys*	*Trixeo Aerosphere*
Breztri	*Forxiga*	*Plendil*[3]	*Truqap*
Breztri Aerosphere	*Genuair*	*Prilosec*	*Turbuhaler*
Brilinta	*Imfinzi*	*Pulmicort*	*Ultomiris*
Brilique	*Imjudo*	*Pulmicort Flexhaler*	*Vaxzevria*
Bydureon	*Iressa*	*Qtern*	*Vimovo*[6]
Byetta	*Kanuma*	*Saphnelo*	*Voydeya*
Calquence	*Kombiglyze*	*Seloken*	*Wainua*
Casodex[1]	*Komboglyze*	*Seroquel*[4]	*Xigduo*
Cosudex	*Koselugo*	*Seroquel XR*[4]	*Zoladex*
Crestor	*Losec*[4]	*Soliris*	

1 AstraZeneca divested these trade marks in a number of European, African and other markets to Juvisé Pharmaceuticals effective 19 December 2019.
2 AstraZeneca divested these trade marks in Europe to Cheplapharm effective 28 September 2018, and in more than 70 other markets effective 31 December 2020.
3 Effective 18 May 2022, AstraZeneca divested *Plendil* in 35 markets to Glenwood.
4 AstraZeneca divested these trade marks in Europe and Russia to Cheplapharm effective 13 December 2019.
5 Effective 25 January 2019, AstraZeneca sold its rights to *Synagis* in the US to Sobi. AbbVie Inc. transferred its ownership rights to this trademark to MedImmune LLC, effective 1 July 2021.
6 AstraZeneca divested the global rights (excluding the US and Japan) for this trade mark to Grünenthal Group, effective 3 December 2018.

The following medicine names, which appear in italics in this Annual Report, are trade marks licensed to the Group by the entities set out below:

Trade mark	Licensor or Owner
Anticalin	Pieris AG
Beyfortus	Sanofi Pasteur Inc.
Duaklir	Almirall, S.A.
Eklira	Almirall, S.A.
Enhertu	Daiichi Sankyo Company, Limited
Linzess	Ironwood Pharmaceuticals, Inc.
Tezspire	Amgen Inc.
Tudorza	Almirall, S.A.

The following medicine names, which appear in italics in this Annual Report, are not owned by or licensed to the Group and are owned by the entities set out below:

Trade mark	Owner
messenger RNA Therapeutics	Moderna
Covishield	Serum Institute of India

Glossary

Market definitions[1]

Region	Country				
US	US				
Europe	Austria*	Estonia*	Ireland*	Netherlands	Slovenia*
	Belgium	Finland	Israel*	Norway	Spain
	Bulgaria*	France	Italy	Poland	Sweden
	Croatia	Germany	Latvia*	Portugal*	Switzerland
	Cyprus*	Greece	Lithuania*	Romania	UK
	Czech Republic	Hungary	Luxembourg*	Serbia and Montenegro*	
	Denmark	Iceland*	Malta*	Slovakia*	
Established RoW	Australia	Canada	Japan	New Zealand*	
Emerging Markets	Algeria	Dominican Republic	Kazakhstan	Panama	Tunisia*
	Argentina	Ecuador*	Kuwait	Peru	Turkey
	Aruba*	Egypt	Lebanon*	Philippines	Ukraine
	Bahamas*	El Salvador	Libya*	Qatar*	United Arab Emirates
	Bahrain*	Georgia*	Malaysia	Russia	Uruguay*
	Barbados*	Guatemala	Maldives	Saudi Arabia	Uzbekistan
	Belarus*	Honduras	Mexico	Singapore	Venezuela*
	Brazil	Hong Kong	Mongolia	South Africa	Vietnam*
	Brunei	India	Morocco*	South Korea	Yemen*
	Cambodia	Indonesia	Nicaragua	Sri Lanka*	
	Chile	Iran*	Oman*	Sudan*	
	China	Iraq*	Other Africa*	Taiwan	
	Colombia	Jamaica*	Pakistan*	Thailand	
	Costa Rica	Jordan	Palestine*	Trinidad and Tobago*	

* Q3 2023 IQVIA, IQVIA Midas Quantum Q3 2023 data are not available or AstraZeneca does not subscribe for IQVIA quarterly data for these countries.
[1] The above table is not an exhaustive list of all the countries in which AstraZeneca operates, and excludes countries with revenue in 2023 of less than $1 million.

Established Markets means US, Europe and Established RoW.

North America means US.

Other Emerging Markets means all Emerging Markets except China.

Other Africa includes Botswana, Ghana, Kenya, Mauritius, Namibia and Nigeria.

US equivalents

Terms used in this Annual Report	US equivalent or brief description
Accruals	Accrued expenses
Called-up share capital	Issued share capital
Earnings	Net income
Employee share schemes	Employee stock benefit plans
Fixed asset investments	Non-current investments
Freehold	Ownership with absolute rights in perpetuity
Loans	Long-term debt
Prepayments	Prepaid expenses
Profit	Income
Share premium account	Additional paid-in capital or paid-in surplus (not distributable)
Short-term investments	Redeemable securities and short-term deposits
Trade Payables	Accounts payable
Trade Receivables	Accounts receivable

The following abbreviations and expressions have the meanings given below when used in this Annual Report:

Acerta – Acerta Pharma B.V.

ADC(s) – antibody drug conjugate(s).

ADRs – American Depositary Receipts.

ADSs – American Depositary Shares.

AGM – Annual General Meeting of the Company.

AI – artificial intelligence.

AKT1 – serine/threonine protein kinase 1.

Alexion – Alexion Pharmaceuticals, Inc.

Almirall – Almirall, S.A.

Amgen – Amgen Inc.

Annual Report – this Annual Report and Form 20-F Information 2023.

API – active pharmaceutical ingredient.

Articles – the Articles of Association of the Company.

Astra – Astra AB, being the company with whom the Company merged in 1999.

AstraZeneca – the Company and its subsidiaries.

ATTR – Transthyretin amyloidosis.

ATTR-CM – Transthyretin-mediated amyloid cardiomyopathy.

biologic(s) or biologic medicine(s) – a class of drugs that are produced in living cells.

BMS – Bristol-Myers Squibb Company.

Board – the Board of Directors of the Company.

BRCA – BReast CAncer gene.

BRCAm – BRCA-mutated.

Bureau Veritas – Bureau Veritas UK Limited.

Capex – Capital expenditure.

CAR-T – therapeutic chimeric antigen receptor.

CDP (formerly the Carbon Disclosure Project) – a not-for-profit organisation that runs the global disclosure system for investors, companies, cities, states and regions to manage their environmental impacts.

CEO – the Chief Executive Officer of the Company.

CER – constant exchange rates.

CFO – the Chief Financial Officer of the Company.

Cheplapharm – Cheplapharm Arzneimittel GmbH.

CinCor – CinCor Pharma, Inc.

CKD – chronic kidney disease.

Claudin 18.2 – a positive therapeutic target in gastric cancer.

CLL – chronic lymphocytic leukaemia.

Code of Ethics – the Group's Code of Ethics, see page 49.

Company or Parent Company – AstraZeneca PLC (formerly Zeneca Group PLC (Zeneca)).

COPD – chronic obstructive pulmonary disease.

COVID-19 – the official WHO name for the disease caused by the 2019 novel coronavirus.

CRT – chemoradiotherapy.

CTLA-4 – cytotoxic T-lymphocyte-associated antigen-4.

CV – cardiovascular.

CVRM – Cardiovascular, Renal & Metabolism.

Daiichi Sankyo – Daiichi Sankyo, Inc. or a company within the Daiichi Sankyo group of companies.

Dato-DXd – datopotamab deruxtecan.

Director – a director of the Company.

DTR – UK Disclosure Guidance and Transparency Rules.

EBITDA – Reported Profit before tax plus net finance expense, share of after tax losses of joint ventures and associates and charges for depreciation, amortisation and impairment.

EFPIA – European Federation of Pharmaceutical Industries and Associations.

EGFR – epidermal growth factor receptor.

EGFRm – EGFR-mutated.

EPS – earnings per share: profit for the year after tax and non-controlling interests, divided by the weighted average number of Ordinary Shares in issue during the year.

ESG – environmental, social and governance.

ESMO – European Society for Medical Oncology.

EVP – Executive Vice-President.

EU – the European Union.

F-gas – fluorinated greenhouse gases include: hydrofluorocarbons (HFCs), perfluorocarbons (PFCs) and sulphur hexafluoride (SF6).

FDA – the US Food and Drug Administration, which is part of the US Department of Health and Human Services Agency, which is the regulatory authority for all pharmaceuticals (including biologics and vaccines) and medical devices in the US.

FRC – the UK Financial Reporting Council.

FX – foreign exchange.

GAAP – Generally Accepted Accounting Principles.

gBRCAm – germline BRCA1/2 mutations.

GHG – greenhouse gas.

GIA – the Group's Internal Audit function.

Gracell – Gracell Biotechnologies Inc.

Gross margin – the margin, as a percentage, by which sales exceed the cost of sales, calculated by dividing the difference between the two by the sales figure.

Group – AstraZeneca PLC and its subsidiaries.

GSK – GlaxoSmithKline plc.

GWP – Global Warming Potential.

Glossary
continued

HCPs – healthcare professionals.

HER2 – human epidermal growth factor receptor 2.

HF – heart failure.

HK – hyperkalaemia.

HRR – homologous recombination repair.

IAS – International Accounting Standards.

IASB – International Accounting Standards Board.

Icosavax – Icosavax, Inc.

IFN – interferons.

IFRS – International Financial Reporting Standards or International Financial Reporting Standard, as the context requires.

Innate Pharma – Innate Pharma S.A.

IP – intellectual property.

IQVIA – IQVIA Solutions HQ Limited.

IS – information services.

ISAs – International Standards on Auditing.

IT – information technology.

KPI – key performance indicator.

krona or SEK – references to the currency of Sweden.

LABA – long-acting beta2-agonist.

LAMA – long-acting muscarinic antagonist.

LCA – Life-Cycle Assessment.

LCM projects – significant life-cycle management projects (as determined by potential revenue generation), or line extensions.

mAb – monoclonal antibody, a biologic that is specific, meaning it binds to and modulates one particular antigen.

major market – US, Europe, Japan and China.

MASH – metabolic dysfunction-associated steatohepatitis, previously NASH.

MAT – moving annual total.

mCRPC – metastatic castration-resistant prostate cancer.

MedImmune – MedImmune, LLC (formerly MedImmune, Inc.).

MET – tyrosine kinase receptor.

MI – myocardial infarction.

Moderna – Moderna Therapeutics, Inc.

MSD – Merck & Co., Inc., which is known as Merck in the US and Canada, and MSD in other territories.

n/m – not meaningful.

Nasdaq – Nasdaq Global Select Market.

Nasdaq Stockholm – previously the Stockholm Stock Exchange.

Neogene – Neogene Therapeutics Inc.

NME – new molecular entity.

NMOSD – neuromyelitis optica spectrum disorder.

NSCLC – non-small cell lung cancer.

OECD – the Organisation for Economic Co-operation and Development.

operating profit – sales, less cost of sales, less operating costs, plus operating income.

Opex – Operating expenditure.

oPCSK9 – oral proprotein convertase subtilisin/kexin type 9.

Ordinary Share – an ordinary share of $0.25 each in the share capital of the Company.

Orphan Drug – a drug that has been approved for use in a relatively low-incidence indication (an orphan indication) and has been rewarded with a period of market exclusivity; the period of exclusivity and the available orphan indications vary between markets.

Paediatric Exclusivity – in the US, a six-month period of exclusivity to market a drug which is awarded by the FDA in return for certain paediatric clinical studies using that drug. This six-month period runs from the date of relevant patent expiry. Analogous provisions are available in certain other territories (such as European Supplementary Protection Certificate paediatric extensions).

PARP – an oral poly (ADP-ribose) polymerase.

PD-1 – programmed cell death protein 1.

PD-L1 – an anti-programmed death-ligand 1.

PFAS – per- and polyfluoroalkyl substances.

Pfizer – Pfizer, Inc.

PFS – progression-free survival. The length of time during and after the treatment of a disease, such as cancer, that a patient lives with the disease without it getting worse.

Phase I – the phase of clinical research where a new drug or treatment is tested in small groups of people (20 to 80) to check that the drug can achieve appropriate concentrations in the body, determine a safe dosage range and identify side effects. This phase includes healthy volunteer studies.

Phase II – the phase of clinical research which includes the controlled clinical activities conducted to evaluate the effectiveness of the drug in patients with the disease under study and to begin to determine the safety profile of the drug. Phase II studies are typically conducted in small- or medium-sized groups of patients and can be divided into Phase IIa studies, which tend to be designed to assess dosing requirements, and Phase IIb studies, which tend to assess safety and efficacy.

Phase III – the phase of clinical research which is performed to gather additional information about effectiveness and safety of the drug, often in a comparative setting, to evaluate the overall benefit/risk profile of the drug. Phase III studies usually include between several hundred and several thousand patients.

PIK3CA – phosphatidylinositol-4,5-bisphosphate 3-kinase, catalytic subunit alpha.

pMDI – pressurised metered-dose inhaler.

pound sterling, £, GBP or pence – references to the currency of the UK.

primary care – general healthcare provided by physicians who ordinarily have first contact with patients and who may have continuing care for them.

PROTACs – a proteolysis targeting chimera, which is a heterobifunctional small molecule composed of two active domains and a linker capable of removing specific unwanted proteins.

PTE – Patent Term Extension, an extension of up to five years in the term of a US patent relating to a drug which compensates for delays in marketing resulting from the need to obtain FDA approval. The analogous right in the EU is a Supplementary Protection Certificate.

PTEN – phosphatase and tensin homolog.

Pulse survey – an AstraZeneca employee opinion survey, which seeks employees' views of the business.

PwC – PricewaterhouseCoopers LLP.

Quell – Quell Therapeutics, Inc.

R&D – research and development.

R&I – Respiratory & Immunology.

rare disease – the EU defines a disease or condition as rare if it affects fewer than 1 in 2,000 people within the general population and in the US, the Orphan Drug Act defines a rare disease as a disease or condition that affects less than 200,000 people in the US.

Redeemable Preference Share – a redeemable preference share of £1 each in the share capital of the Company.

RCPs – Representative Concentration Pathways.

RNA – ribonucleic acid.

Roche – F. Hoffmann-La Roche AG.

RoW – rest of world.

RSV – respiratory syncytial virus.

Sanofi – Sanofi S.A./Sanofi Pasteur, Inc.

Sarbanes-Oxley Act – the US Sarbanes-Oxley Act of 2002.

SBTs – science-based targets.

sBLA – supplemental Biologics License Application.

Scope 1 – Combustion of fuel and operation of facilities.

Scope 2 – (Market-based): Electricity (net of market instruments), heat, steam and cooling purchased for own use.

Scope 3 – (Location-based): Electricity, heat, steam and cooling purchased for own use.

SEC – the US Securities and Exchange Commission, the governmental agency that regulates the US securities industry and stock markets.

SEK – Swedish krona (or kronor).

SET – the Senior Executive Team.

SG&A – selling, general and administrative expenses.

SLE – Systemic lupus erythematosus.

siRNA – small interfering RNA.

Sobi – Swedish Orphan Biovitrum AB.

SGLT2 – sodium-glucose cotransporter 2.

SPC – supplementary protection certificate.

specialty care – specific healthcare provided by medical specialists who do not generally have first contact with patients.

Spirogen – Spirogen Sàrl.

SoC – standard of care. Treatment that is accepted by medical experts as a proper treatment for a certain type of disease and that is widely used by healthcare professionals.

SVP – Senior Vice-President.

T2D – type 2 diabetes.

TCFD – Task Force on Climate-related Financial Disclosures.

TCR-T – T-cell receptor therapies.

Total Revenue – the sum of Product Sales, Collaboration Revenue and Alliance Revenue.

Treg – T-regulator.

TROP2 – trophoblast cell-surface antigen 2.

TSLP – thymic stromal lymphopoietin.

TSR – total shareholder return, being the total return on a share over a period of time, including dividends reinvested.

uHCC – unresectable hepatocellular carcinoma.

UK – United Kingdom of Great Britain and Northern Ireland.

UK Corporate Governance Code – the UK Corporate Governance Code published by the FRC in July 2018, as amended, that sets out standards of good practice in corporate governance for the UK.

US – United States of America.

US dollar, US$, USD or $ – references to the currency of the US.

V&I – Vaccines & Immune Therapies.

VBP – value-based procurement.

Viela Bio – Viela Bio, Inc.

WHO – World Health Organization, the United Nations' specialised agency for health.

YTE – A technology that introduces the so-called YTE (amino acid) mutation into the antibody, which prolongs the antibody's half-life.

Important information for readers of this Annual Report

Cautionary statement regarding forward-looking statements

The purpose of this Annual Report is to provide information to the members of the Company. The Company and its Directors, employees, agents and advisers do not accept or assume responsibility to any other person to whom this Annual Report is shown or into whose hands it may come and any such responsibility or liability is expressly disclaimed. In order, among other things, to utilise the 'safe harbour' provisions of the US Private Securities Litigation Reform Act of 1995 and the UK Companies Act 2006, we are providing the following cautionary statement:

This Annual Report contains certain forward-looking statements with respect to the operations, performance and financial condition of the Group, including, among other things, statements about expected revenues, margins, earnings per share or other financial or other measures. Forward-looking statements are statements relating to the future which are based on information available at the time such statements are made, including information relating to risks and uncertainties. Although we believe that the forward-looking statements in this Annual Report are based on reasonable assumptions, the matters discussed in the forward-looking statements may be influenced by factors that could cause actual outcomes and results to be materially different from those predicted. The forward-looking statements reflect knowledge and information available at the date of the preparation of this Annual Report and the Company undertakes no obligation to update these forward-looking statements. We identify the forward-looking statements by using the words 'anticipates', 'believes', 'expects', 'intends' and similar expressions in such statements. Important factors that could cause actual results to differ materially from those contained in forward-looking statements, certain of which are beyond our control, include, among other things:

- the ability of the Group and Icosavax to complete the transactions contemplated by the merger agreement with Icosavax, including the parties' ability to satisfy the conditions to the consummation of the tender offer contemplated thereby and the other conditions set forth in the merger agreement with Icosavax
- the ability of the Group and Gracell to complete the transactions contemplated by the merger agreement with Gracell, including the parties' ability to satisfy the conditions set forth in the merger agreement with Gracell
- the Group's statements about the expected timetable for completing the acquisitions of Icosavax and Gracell
- The Group's and Icosavax's beliefs and expectations and statements about the benefits sought to be achieved in the Group's pending acquisition of Icosavax
- the Group's and Gracell's beliefs and expectations and statements about the benefits sought to be achieved in the Group's proposed acquisition of Gracell
- the potential effects of the acquisition of Icosavax on both the Group and Icosavax and of the acquisition of Gracell on both the Group and Gracell
- the possibility of any termination of the merger agreement with Icosavax or of the merger agreement with Gracell
- the expected benefits and success of IVX-A12 and any combination product or GC012F and any combination product
- the possibility that any milestone related to any contingent value right will not be achieved
- the risk of failure or delay in delivery of pipeline or launch of new medicines
- the risk of failure to meet regulatory or ethical requirements for medicine development or approval
- the risk of failures or delays in the quality or execution of the Group's commercial strategies
- the risk of pricing, affordability, access and competitive pressures
- the risk of failure to maintain supply of compliant, quality medicines
- the risk of illegal trade in our Group's medicines
- the impact of reliance on third-party goods and services
- the risk of failure in IT or cybersecurity
- the risk of failure of critical processes
- the risk of failure to collect and manage data in line with legal and regulatory requirements and strategic objectives
- the risk of failure to attract, develop, engage and retain a diverse, talented and capable workforce
- the risk of failure to meet regulatory or ethical expectations on environmental impact, including climate change
- the risk of the safety and efficacy of marketed medicines being questioned
- the risk of adverse outcome of litigation and/or governmental investigations
- intellectual property-related risks to the Group's products
- the risk of failure to achieve strategic plans or meet targets or expectations
- the risk of failure in financial control or the occurrence of fraud
- the impact that global and/or geopolitical events may have or continue to have on these risks, on the Group's ability to continue to mitigate these risks, and on the Group's operations, financial results or financial condition
- the risk of failure in financial control or the occurrence of fraud
- the risk of unexpected deterioration in the Group's financial position.

Certain of these factors are discussed in more detail, without limitation, in the Risk Supplement available on our website, www.astrazeneca.com/annualreport2023, and reproduced in AstraZeneca's Form 20-F filing for 2023, available on the SEC website www.sec.gov. Nothing in this Annual Report should be construed as a profit forecast.

Inclusion of Reported performance, Core financial measures and constant exchange rate growth rates

AstraZeneca's determination of non-GAAP measures, together with our presentation of them within our financial information, may differ from similarly titled non-GAAP measures of other companies.

Statements of competitive position, growth rates and sales

In this Annual Report, except as otherwise stated, market information regarding the position of our business or products relative to its or their competition is based upon published statistical sales data for the 12 months ended 30 September 2023 obtained from IQVIA, a leading supplier of statistical data to the pharmaceutical industry. Unless otherwise noted, for the US, dispensed new or total prescription data and audited sales data are taken, respectively, from IQVIA National Prescription Audit and IQVIA National Sales Perspectives for the 12 months ended 31 December 2023; such data are not adjusted for Medicaid and similar rebates. Except as otherwise stated, these market share and industry data from IQVIA have been derived by comparing our sales revenue with competitors' and total market sales revenues for that period, and except as otherwise stated, growth rates are given at CER.

For the purposes of this Annual Report, unless otherwise stated, references to the world pharmaceutical market or similar phrases are to the 55 countries contained in the IQVIA database, which amounted to approximately 94% (in value) of the countries audited by IQVIA. Changes in data subscriptions, exchange rates and subscription coverage, as well as restated IQVIA data, have led to the restatement of total market values for prior years.

AstraZeneca websites

Information on or accessible through our websites, including www.astrazeneca.com, and www.astrazenecaclinicaltrials.com and on any websites referenced in this Annual Report, does not form part of and is not incorporated into this Annual Report.

External/third-party websites

Information on or accessible through any third-party or external website does not form part of and is not incorporated into this Annual Report.

Figures

Figures in parentheses in tables and in the Financial Statements are used to represent negative numbers.

Supplements

For detailed information on our Development Pipeline, Patent Expiries of Key Marketed Products, Risk, and Task Force on Climate-related Financial Disclosures (TCFD) Statement, see our website, www.astrazeneca.com/annualreport2023.

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This Annual Report is also available on our website, www.astrazeneca.com/annualreport2023