






Sustainability Report 2022



About this report

This is our eighth annual sustainability report and it describes our approach and progress from 1 January 2022 to 31 December 2022, unless otherwise stated. The content is based on those sustainability focus areas deemed material through comprehensive stakeholder engagement and analysis. All our business operations worldwide are in scope regardless of their function, unless otherwise stated.

Online resources:

-  [AstraZeneca Sustainability Data Summary](#): provides performance measures and targets with at least three years of data, where available, and a [United Nations Sustainable Development Goals](#) index.
-  [AstraZeneca Sustainability webpages](#): cover additional topics of interest to our stakeholders.
-  [Infographics](#): show our processes and practices.
-  [Policies and company standards](#): state our positions and guidance on key topics.
-  [2022 Annual Report](#): includes how sustainability is integrated across our business model and our risk management.

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Assurance

Bureau Veritas has provided limited assurance for sustainability activities reported in the [Sustainability Data Summary 2022](#) and in the [Annual Report 2022](#). Details are described in the [Letters of Assurance](#), which are publicly available. Assurance is in accordance with the International Standard on Assurance Engagements (ISAE) 3000 (Revised), Assurance Engagements Other than Audits or Reviews of Historical Financial Information, and with International Standard on Assurance Engagements 3410 – ‘Assurance Engagements on Greenhouse Gas Statements’ (‘ISAE 3410’), issued by the International Auditing and Assurance Standards Board.

AstraZeneca has reported the information cited in this [GRI content index](#) for the period from 1 January 2022 to 31 December 2022, with reference to the GRI Standards.

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Next generation therapeutics

Advancements in biotechnology have expanded our toolkit of drug modalities. This provides an opportunity to design therapeutics for disease mechanisms previously considered difficult, if not impossible, to target and enables our scientists to pioneer new approaches to drug discovery.

Message from the CEO



Pascal Soriot, AstraZeneca CEO and Champion of the Sustainable Markets Initiative (SMI) Health Systems Task Force speaking at COP27, Egypt 2022.

Putting health at the heart of a sustainable future

As we navigate current socio-economic and environmental challenges, we must prioritise building sustainable, resilient and equitable health systems that protect current and future generations.

During 2022, AstraZeneca demonstrated its continued commitment to innovate for patients and improve health outcomes worldwide. Our pandemic response and global vaccine delivery are testament to this, with over six million lives saved in the first year¹ and a focus on equitable access.

I am equally proud of our efforts to address climate change, the greatest public health crisis of our time, which is causing a rise in chronic diseases and health inequalities, as well as increasing pressures on health systems.

As highlighted in this Report, we are making important progress with our science-led Ambition Zero Carbon strategy. By the end of December 2022, we had achieved a 59.3% reduction in Scope 1 and 2 greenhouse gas (GHG) emissions compared to our 2015 baseline, with our AZ Forest programme working in parallel to help restore nature and biodiversity, and over 10.5 million trees planted since 2020.

We also continued to drive change across the health sector, including through the Sustainable Markets Initiative (SMI). Ahead of COP27, the SMI Health Systems Task Force, which I am honoured to champion, announced shared commitments and actions to reduce emissions in line with the 1.5°C pathway and accelerate the transition to net-zero health systems.

Furthermore, the Partnership for Health System Sustainability and Resilience (PHSSR), which we co-founded in 2020, has now expanded to more than 30 countries. Our top three ranking in the 2022 Access to Medicine Index recognises our strategic focus on increasing equitable and affordable access to life-changing treatments.

How we achieve results is of vital importance, and we are guided by our Values in all that we do. Through our Code of Ethics and standards, we strive for a safe, responsible and ethical business culture for our employees

and partners. We also take pride in championing a culture of inclusion and belonging, recognising the power of diversity in fostering innovation.

2023 will see us further accelerate our efforts in delivering our sustainability goals. By working with others to prioritise health, we will play our part in ensuring communities and societies thrive, economies prosper, and the planet recovers.

Pascal Soriot,
AstraZeneca CEO



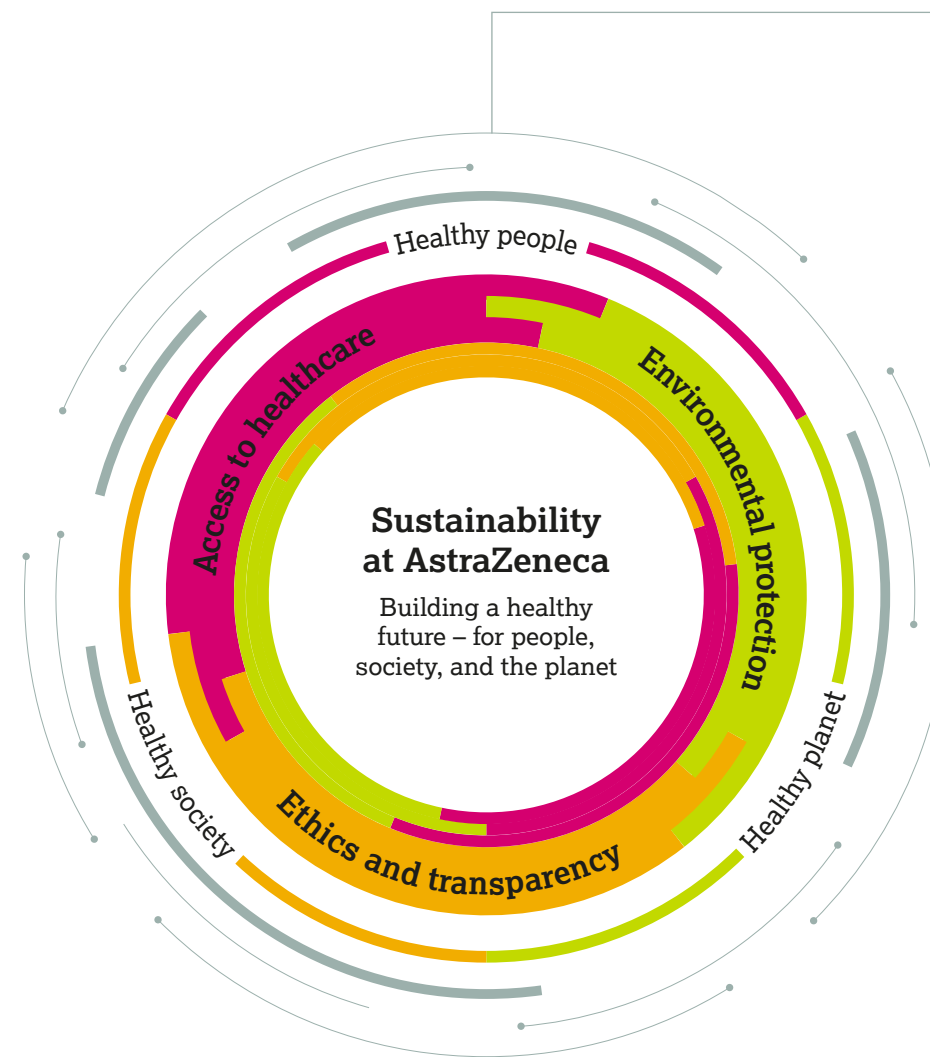
Inaugurating a Green Field Hospital with the Egyptian Health Authority during COP27 to support sustainable healthcare delivery.

What sustainability means at AstraZeneca

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.

We are playing our part in tackling the biggest challenges of our time, from climate change to access to healthcare and disease prevention. By using a science-led approach and ensuring we act with integrity and in accordance with our Values, we are transforming the future of healthcare and making a positive impact.

We seek to create value beyond the impact of our life-changing medicines, by embedding sustainability into everything we do – from the lab to the patient.



Our sustainability strategy

The results of our 2021 materiality assessment identified the issues that matter most to AstraZeneca and our stakeholders, and showed where we can have a positive impact. We have nine focus areas, each with their own targets, grouped under three interconnected priorities:

- | Access to healthcare
- | Environmental protection
- | Ethics and transparency

Our ambitions

- | Increasing access to life-saving treatments, promoting prevention, and strengthening global healthcare resilience and sustainability.
- | Accelerating the delivery of net-zero healthcare, proactively managing our environmental impact across all activities, and investing in nature and biodiversity.
- | Ensuring ethical, open, and inclusive behaviour across our organisation and value chain.



2022 performance highlights

Sustainability strategy

14
public & private sector organisations convened by AstraZeneca CEO through the SMI to accelerate transition to net-zero health systems

87%
of employee survey respondents say that they understand their contributions to our sustainability priorities

25/27
of sustainability targets in Sustainability Data Summary are 'On plan'

Access to healthcare

126,684
healthcare workers trained since 2010 (cumulative)

>44.63 million
people reached through access to healthcare programmes (cumulative)

>12.83 million
people reached through our patient assistance programmes (cumulative)

Environmental protection

(changes are from 2015 baseline)

59.3%
reduction in Scope 1 and 2 greenhouse gas emissions

18.7%
reduction in our water use

18.6%
reduction in our waste

Ethics and transparency

49.5%
senior middle management roles held by women

8 countries
with supplier diversity programmes

83%
of employee survey respondents feel we have a 'speak up' culture

About us

Our purpose:

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

To transform healthcare for billions of people, we are focused on:




- Science and innovation to deliver new medicines that address unmet medical need
- Transforming outcomes for patients, increasing access to healthcare, and making healthcare systems more resilient, while growing the success of our company
- Contributing sustainably to people, society, and the planet

Our strategic priorities drive our efforts, while working inclusively and collaboratively across our company and with others, always in line with our Values.

Our Values

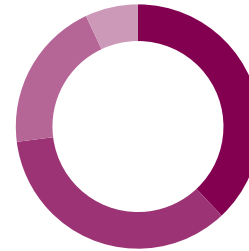
-  We follow the science
-  We put patients first
-  We play to win
-  We do the right thing
-  We are entrepreneurial

Our strategic priorities

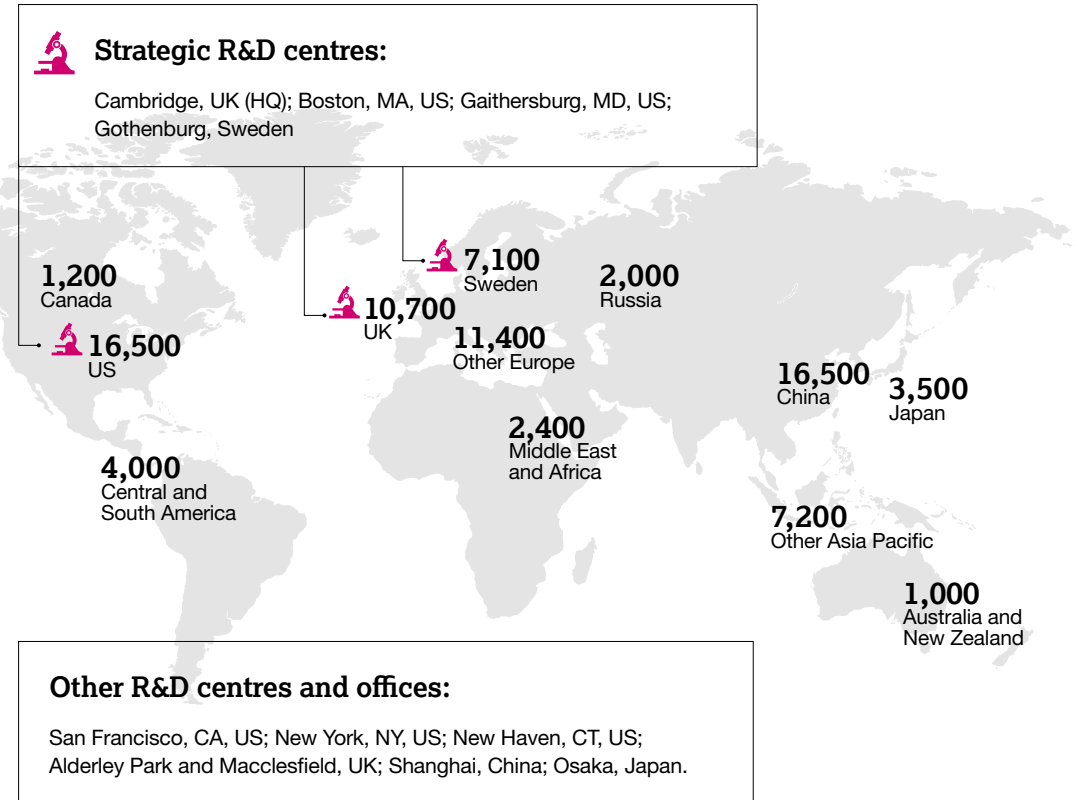
-  Science & Innovation
-  Growth & Therapy Area Leadership
-  People & Sustainability

83,500
employees worldwide

Employees by reporting region



- Europe **38%**
- Emerging markets **35%**
- US **20%**
- Established rest of the world **7%**



Our recognition

access to medicine FOUNDATION 3rd in 2022 **Access to Medicine Index**, 1st for product delivery



Bloomberg Gender-Equality Index



A list for Climate and Water Security

Member of **Dow Jones Sustainability Indices**
Powered by the S&P Global CSA

World and Europe Global constituent **Dow Jones Sustainability Index**



FTSE4Good



DiversityInc Top 50 Companies for Diversity List (US)

Contribution to the Sustainable Development Goals (SDGs)

The 17 United Nations SDGs are a global call to action to address poverty, injustice, and inequality, while tackling climate change.

To evaluate our contribution we have mapped how our progress and metrics impact the [SDG targets](#).



SDG 3 | Good health and wellbeing

3.4 Reduce premature mortality from non-communicable diseases (NCDs)

- 1,258 health facilities activated (cumulative) through Healthy Heart Africa programme
- NCD prevention information reached 39 countries through our Young Health Programme

3.6 By 2030, halve the number of global deaths and injuries from road traffic accidents

- Driver safety: 49% reduction in collision rate since 2015

3.8 Achieve universal health coverage

- More than 12.8 million people reached by patient access programmes (cumulative)
- More than 44.6 million people reached through healthcare programmes (cumulative)

3.c Substantially increase health workforce in developing countries

- More than 126,000 healthcare workers trained (cumulative)

SDG 12 | Responsible consumption and production

12.2 Achieve the sustainable management and efficient use of natural resources

- 67% of new products have met their defined resource efficiency targets at launch since 2015

12.5 By 2030, substantially reduce waste generation through prevention, reduction, recycling and reuse

- 18.6% decrease in total waste generation from 2015 baseline
- In 2022, avoided 2,129 tonnes of waste by selling it as a by-product

SDG 5 | Gender equality

5.5 Ensure women's full and effective participation and equal opportunities for leadership at all levels of decision-making in political, economic and public life

- 49.5% senior middle management roles held by women
- 38.5% of Board of Directors occupied by women
- Approximately 1,000 employees attended our dedicated leadership development programmes for women²

SDG 6 | Clean water and sanitation

6.3 By 2030, improve water quality by reducing pollution, eliminating dumping and minimising release of hazardous chemicals and materials

- 100% of Active Pharmaceutical Ingredients (API) discharges from AstraZeneca sites and 92% of discharges from direct suppliers were in compliance with target³

6.4 By 2030, substantially increase water-use efficiency across all sectors and ensure sustainable withdrawals and supply of freshwater to address water scarcity

- 18.7% reduction in water use since 2015 baseline

SDG 13 | Climate action

13.2 Integrate climate change measures into national policies, strategies and planning

- Reduced Scope 1 and 2 emissions by 59.3% since 2015 baseline
- Leading Sustainable Markets Initiative (SMI) Health Systems Task Force to accelerate the transition to net-zero health systems

SDG 7 | Affordable and clean energy

7.3 By 2030, double the global rate of improvement in energy efficiency

- 89.7% increase in energy productivity (million US dollars of revenue per GWh energy consumption) from a 2015 baseline
- Reduced energy use by 14.4% since 2015 baseline

SDG 8 | Decent work and economic growth

8.8 Protect labour rights and promote safe and secure working environments for all workers

- 72% reduction in reportable injury rate since 2015

SDG 15 | Life on land

- Over 10.5 million trees planted since 2020 through AZ Forest
- 97.5% of paper-based product packaging materials used were supplied from sustainable sources⁴

SDG 17 | Partnership for the goals

17.17 Encourage and promote effective public, public-private and civil society partnerships

- PHSSR continues to expand and act as a driver for policy improvements in the countries where it is active



Sustainability governance

Our sustainability strategy is developed by our Senior Executive Team (SET) with governance provided by our Board of Directors and relevant Board Committees, in particular the Board Sustainability Committee, which assesses progress and helps ensure we move forward in the most impactful way.

With effect from January 2023, on the retirement of the EVP Sustainability and Chief Compliance Officer, responsibility for Sustainability passed to our [EVP Operations, Information Technology and Sustainability](#).

The AstraZeneca Board of Directors approves our sustainability strategy and reviews our internal sustainability scorecard each quarter.

Board of Directors



Leif Johansson
Non-Executive Chair of the Board



Pascal Soriot
CEO and Executive Director of the Board

In 2021, the Board established a Sustainability Committee to monitor the implementation of our sustainability strategy, oversee communication of sustainability activities with stakeholders, and provide input to the Board and other Board Committees on sustainability matters.

During 2022, the Committee held two formal meetings and considered topics such as: embedding sustainability across AstraZeneca, including in the product lifecycle; reviewing how environmental, social and governance (ESG) risks are managed; reviewing the enterprise-wide approach to our Access to healthcare strategy; and supporting work on the compensation of ESG objectives.

In addition, the Committee facilitated a deep dive session for the Board on progress against our Ambition Zero Carbon targets.

Committee members also visited AstraZeneca's R&D and Manufacturing supply site in Macclesfield, UK, and met with a range of employees working across our sustainability strategic priorities.

Board Sustainability Committee



Nazneen Rahman
Non-Executive Director of the Board and Chair of the Sustainability Committee



Sheri McCoy
Non-Executive Director of the Board



Marcus Wallenberg
Non-Executive Director of the Board



Andreas Rummelt
Non-Executive Director of the Board

The SET, led by our CEO, develops our sustainability strategy and is accountable for specific sustainability initiatives. They review our internal sustainability scorecard each quarter. In 2022, the EVP Sustainability and Chief Compliance Officer was responsible for the overall sustainability strategy execution, including measuring progress on targets and working with leaders to ensure alignment with business priorities.

Senior Executive Team (SET)



Pascal Soriot
CEO and Executive Director of the Board



Katarina Ageborg
EVP, Sustainability and Chief Compliance Officer, President AstraZeneca AB, Sweden



Stakeholder engagement

We value the diverse perspectives of internal and external stakeholders, which help to shape our sustainability strategy and guide its implementation.

We periodically seek input from stakeholders through materiality assessments, as well as through regular engagements. We welcome transparent dialogue through a range of communication channels – online, face to face and in groups. [Our Code of Ethics](#) supports our approach.

Stakeholder engagement in action

Considering the interests of our stakeholders is fundamental to our Sustainability strategy. Foremost among our stakeholder groups as a company are our patients – including via patient communities and advocacy groups. Other priority stakeholders are payers including governments, particularly in relation to access to healthcare, the investor community on ESG matters and healthcare professionals (HCPs), with a focus on development and delivery of medicines. We also work closely with academia and R&D partners across the healthcare and environmental fields, as well as our industry peers and other major companies with a shared ambition to tackle sustainability challenges, through global policy and industry forums.

We partner with governmental and non-governmental bodies across our sustainability priorities. In addition, our suppliers are key to the achievement of many of our environmental targets and our commitments to ethical behaviour and transparency. We also aim to have a positive impact in the communities where we operate. Last but not least, we have an extensive process of communication and engagement with our employees, who are critical to the achievement of our sustainability goals.

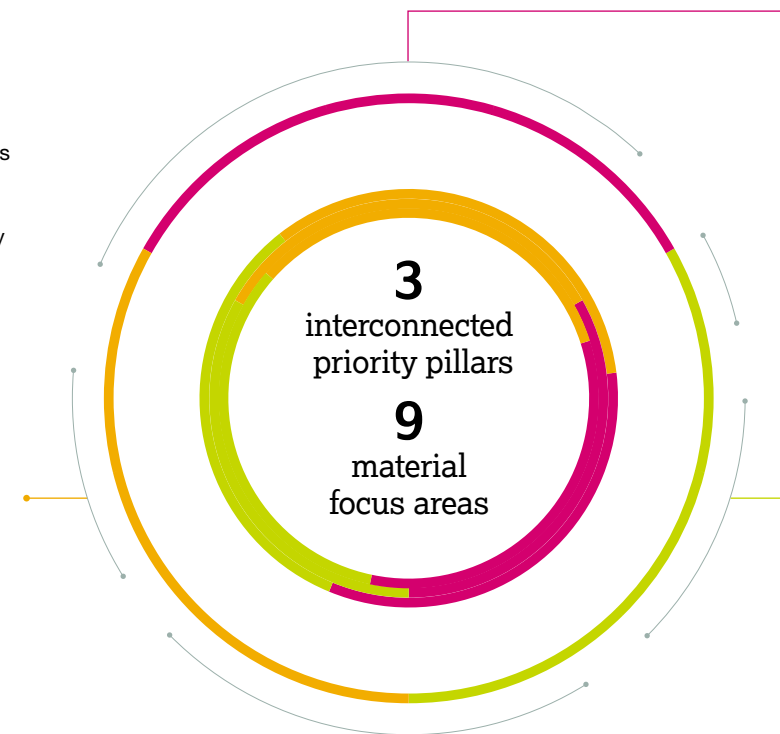
For more details on the interests, engagements, and outcomes of contact with these and other stakeholder groups, please see 'Connecting with our stakeholders' in the Corporate Governance section of our [Annual Report](#) (pages 86-88 and 217).

Materiality assessment

Our sustainability strategy is guided by the materiality assessment we conducted in 2021, which identified the issues that matter most to AstraZeneca and our stakeholders and showed where we can have a positive impact. We assess the relevance of our strategy and material focus areas annually, through continuous dialogue with our stakeholders and horizon-scanning for emerging sustainability topics. This process confirmed that our existing focus areas remained a priority in 2022.

Material focus areas

We have nine material focus areas grouped under three interconnected strategic priority pillars, each of which is detailed in this Report, along with relevant targets, goals and examples of sustainability in action.



Access to healthcare

Health is key for people and our planet to thrive

Our ambition

To promote prevention, increase access to life-saving treatments, and strengthen global healthcare resilience and sustainability

Connection to health

Innovative and sustainable healthcare solutions are essential to improving global health outcomes



Contributing to the Sustainable Development Goals, a universal blueprint for prosperity for people and the planet, now and into the future.

SDG 3 | Good health and wellbeing
SDG 17 | Partnerships for the goals

2022 performance

>44.63 million

people reached through access to healthcare programmes (cumulative)¹

>12.83 million

people reached through our patient assistance programmes (cumulative)²

126,684

healthcare workers trained (cumulative)³

3,899

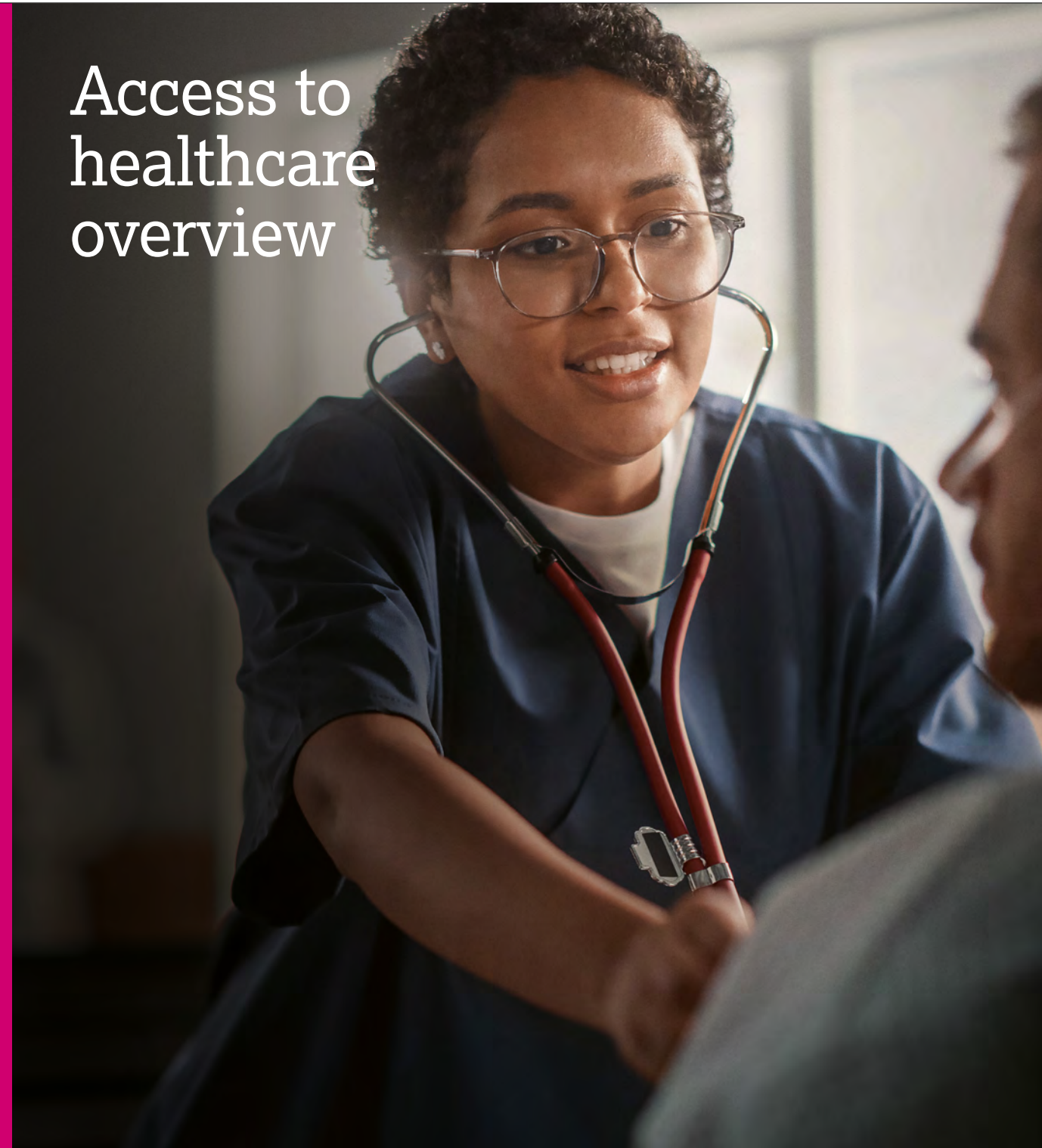
total healthcare facilities activated⁴

See [Sustainability Data Summary](#) for full metrics and methodology



Our material focus areas

Access to healthcare overview



We want to transform healthcare to secure a future where all people have access to affordable, sustainable, and innovative healthcare.

The big picture

Everyone should have access to healthcare, no matter who they are or where they live. This is critical across the patient care pathway – from prevention, early detection and diagnosis to the effective treatment of disease.

Approach

We are working to remove barriers to access and innovating to deliver our life-changing medicines in a sustainable and equitable way, through global, regional and local partnerships.

Central to this is our commitment to promoting prevention, increasing access to treatments, and strengthening global health system resilience and sustainability.

In 2022, the Access to Medicine Foundation recognised AstraZeneca as third overall out of the 20 companies on the [2022 Access to Medicine Index](#), and first for Product Delivery, with second place for Governance of Access and sixth for Research and Development, our highest ranking to date.

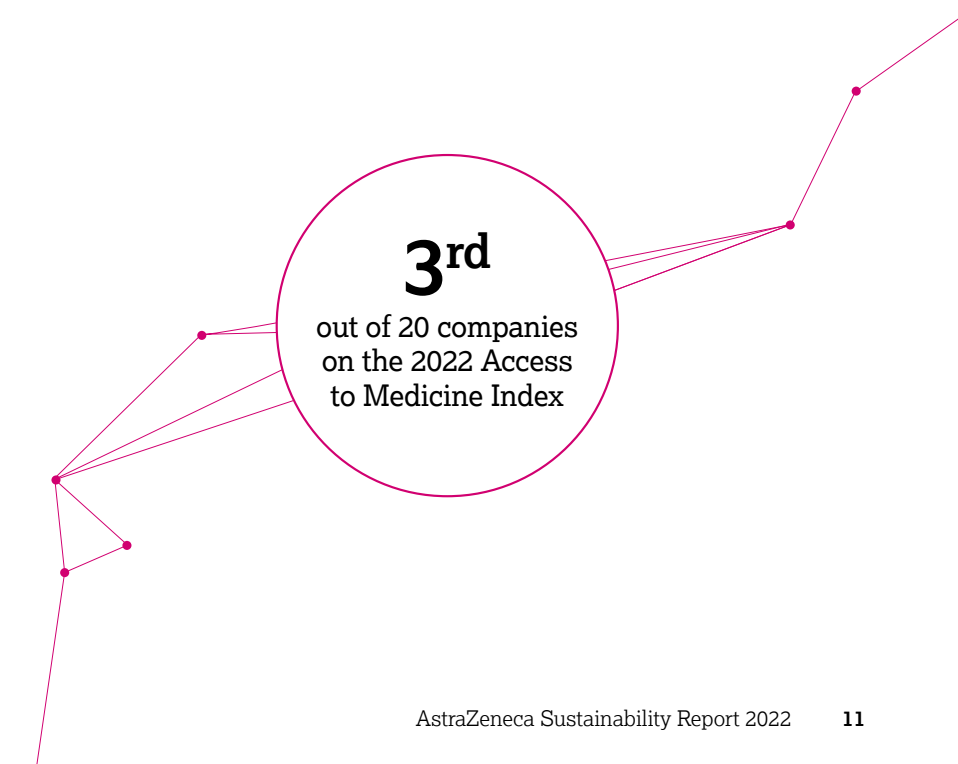
We are focused on:

- **Innovating** to deliver life-changing medicines and future-proof global health systems
- **Partnering** to improve health equity for patients now and in the long-term
- **Transforming** healthcare to secure a future where all people have equitable access to treatment

Governance

We collaborate on our Access to healthcare material focus areas on a cross-functional basis to deliver our strategy and measure progress.

Material focus areas





Equitable access

Why it matters

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.

Description

Embed practices into the product portfolio to drive equitable access to healthcare – including digital health, clinical trial diversity, patient centricity, investing in rare diseases, open innovation, and Intellectual Property (IP) sharing arrangements.

Approach

AstraZeneca is committed to improving equitable access to healthcare for patients globally, including to our innovative product portfolio. Our approach includes integrating programmes into local systems and delivering affordable medicines to patients. We seek to drive positive global health outcomes by:

- Addressing unmet medical need and barriers to access
- Increasing the speed and breadth of patient access
- Driving excellence in product life cycle management
- Understanding the long-term impacts of scientific advances

We are playing our part to address health inequities and eliminate discrimination from the delivery of healthcare. As a company at the forefront of scientific and medical innovation, we are also harnessing the latest digital technologies to support improved access. This includes using the power of data and analytics for early diagnosis, and expanding access to the latest medical research and training for healthcare professionals.

Diversity in clinical trials

We are committed to designing clinical programmes with equity at the forefront – from idea inception to patient care. Our approach includes increasing the diversity of clinical trial participants so trials better reflect the patients who may use our medicines, which ensures we have a robust and reliable body of evidence.

Rare diseases

Therapies are only available for 5% of more than 7,000 rare diseases.⁵ We believe people with rare diseases deserve the same attention and investment into finding therapies as anyone else. We supply medicines for rare diseases through our patient support and expanded access programmes and are working to expand the geographies where our rare disease medicines are available.

Challenges

In every society, economic and supply barriers as well as geographic impediments inhibit universal access to high quality evidence-based healthcare. In developing countries there is an epidemiological shift from the prevalence of communicable to non-communicable diseases,⁶ but local healthcare provision varies in quality, and the systems may not be in place to tackle this growing burden. Programmes to control priority public health conditions also need to recognise the importance of the economic and social determinants of health.

We have therefore aligned our access initiatives towards improving health equity by addressing two specific local needs:

1. Creating holistic approaches to localisation, which includes collaboration with governments and utilising local expertise to identify and address shared priorities.
2. Collaborating in cross-sector partnerships to improve health outcomes.

Key targets and progress

2025 target

Reach 50 million people (cumulative) through Healthy Heart Africa, Young Health Programme (YHP), and Healthy Lung programme.

Status: On plan

2022 update

More than 44.63 million people reached (cumulative) through Healthy Heart Africa, Young Health Programme and Healthy Lung programme.¹

Philanthropy

2022 update

In 2022,
\$108.06m

Total community investment, sponsorships, partnerships and charitable donations (not including Patient Assistance Programmes).⁷

44.63 million
people reached¹

Sustainability in action



Interconnected and dynamic global network of health innovation hubs

Our A.Catalyst Network is comprised of more than 20 AstraZeneca health innovation hubs, combining physical locations and virtual partnerships. Our collective ambition is to:

- Address current healthcare challenges
- Increase affordable and equitable access to healthcare
- Scale and showcase patient-enabled innovation through partnerships within the health ecosystem

The network embodies AstraZeneca's commitment to advancing cutting-edge science and building a sustainable future, acting as a catalyst to develop life-changing solutions for patients.

In 2022, we expanded the network by adding new hubs in Colombia, Peru and Spain. In 2022, over 2 million patients were reached across the A.Catalyst Network through innovative solutions.

Project Heart Beat, using India-based Tricog Health's InstaECG machine enabling local HCPs to upload electrocardiograms (ECGs) to the cloud, where the data are interpreted by specialists using a purpose-built app. If the screening process confirms the diagnosis of a heart attack, the patient is referred to an appropriate health facility. On average, detection using this technology takes just three minutes, and has helped doctors at poorly equipped primary healthcare centres to correctly diagnose 44,235 patients with a total of 21,348 cases of myocardial infarction identified and referred to tertiary care centres for appropriate intervention by cardiologists.

Fuel Africa, a health innovation programme launched by Futurize in partnership with AstraZeneca and Microsoft, and co-funded by Bristol Myers Squibb and Famfa Oil, is making connections across African universities via a virtual, immersive programme and competition to create new healthcare solutions. Harnessing digital technology has helped to create one of the largest cross-university and international innovation programmes in Africa, turning students into entrepreneurs who are generating digital healthcare solutions. In 2022, we connected 1,200 students from 12 universities in seven African countries.

Our A.Catalyst Network collective ambition is to address current healthcare challenges, increase affordable and equitable access to healthcare, and scale and showcase patient-enabled innovation through partnerships.

Leading role in the response to COVID-19 pandemic

The COVID-19 pandemic accelerated the science behind vaccines and preventative medicines. We have delivered billions of doses of a COVID-19 vaccine to more than 180 countries across the world and on an equitable basis, supplying our vaccine at cost during the pandemic. We were also the first manufacturer to join the COVAX facility working for equitable access to COVID-19 vaccines.

A modelled outcomes analysis conducted by health analytics firm Airfinity in July 2022, based on data from Imperial College, London, showed that the AstraZeneca COVID-19 vaccine is estimated to have helped save over six million lives in the first year of vaccination.⁸

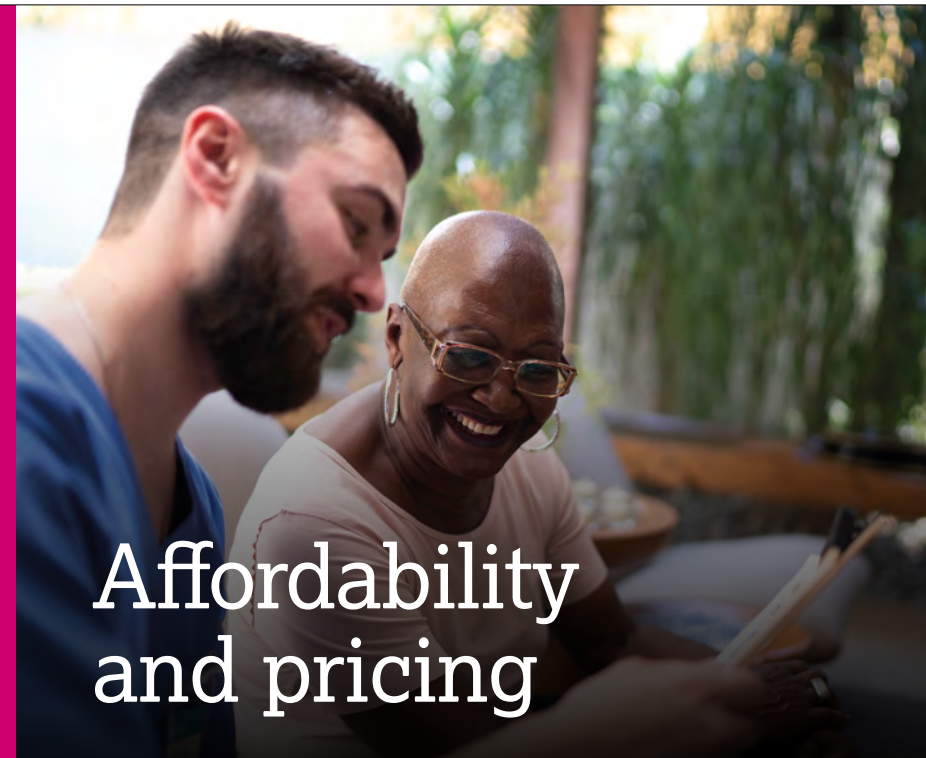
Supporting “last mile” communities in Kenya

In 2022, we launched an initiative in collaboration with the Kenya Ministry of Health, partnering with Amref Health Africa to deploy Mobile Vaccination Clinics (MVCs) to help protect hard-to-reach communities from the pandemic. The 10 MVCs will supply COVID-19 vaccines and other health services, increasing vaccine access and uptake, and providing education, screening, and care.

By the end of 2022, six MVCs were ready for use and 10,700 people had been vaccinated since launch. The clinics are equipped with back-up solar power and solar-powered fridges, which reduces their environmental impact and maximises freedom of movement into the heart of communities. Data is reported through on-site web-enabled computers. The clinics will bolster health system infrastructure preparedness and resilience in Kenya, through the provision of services to those in need and in response to increasing prevalence of non-communicable diseases (NCDs).

Improving access to digital solutions

In 2022, we joined the World Economic Forum's **EDISON Alliance**, a public-private partnership that aims to improve the lives of 1 billion people through digital inclusion by 2025, with a focus on underserved communities. Our contribution to the 1 Billion Lives Challenge comes from the A.Catalyst Network flagship project in partnership with Qure.ai. We have committed to screen 5 million patients for lung cancer using AI-based technology, and we have analysed approximately 128,000 scans for lung cancer risk across 25 countries, with high malignancy risk lung nodules identified in 1.6% of scans (as at end December 2022).



Affordability and pricing

Why it matters

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.

Our tailored access strategies were recognised by the 2022 Access to Medicine Index as industry-leading in the Product Delivery category.

Description

Drive accessibility of medicines for diverse, equitable, and inclusive patient groups, through company policy and programming, including core pricing principles and access programmes.

Approach

There are four key principles that drive sustainable affordability:

- **Sustainability:** of both the healthcare system and our research-led business model
- **Value:** reflects the clinical benefit of our medicines to patients, and the broader impact on society, along with the positive economic impact to the healthcare system by reducing the need for additional medical intervention
- **Access:** collaboration with payers and providers on solutions to enable sustainable access to our medicines
- **Flexibility:** in pricing to reflect variation in health system needs and ability to pay

Value-based agreements: across multiple therapy areas

Value-based agreements enable patient access while reducing uncertainty of payers (clinical or economic) by linking access, reimbursement, or price, to real-world clinical benefit or other agreed terms.

AstraZeneca works closely with governments to create agreements, based on local real-world data, and which are tailored to address unmet needs.

Patient access programmes

- Patient assistance programmes use fully donated product without expectation of payment from the patient for any portion or to access the programme. Our largest Patient Assistance Programme is AZ&Me in the United States, which provides eligible patients with AstraZeneca medicines free of charge
- Patient affordability programmes aim to close the gap in the ability to pay for out-of-pocket patients (paying for their own medicines) and are active in more than 20 low- and middle-income countries (LMICs)⁹

Challenges

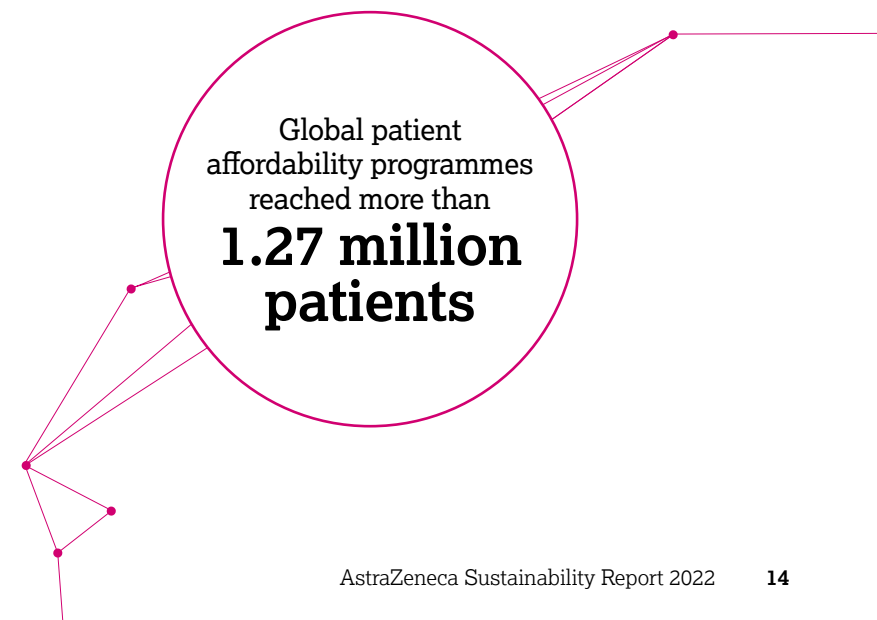
As a global company with an active presence in some 85 countries and product sales in approximately 130 countries in 2022, most of our key markets have experienced challenges which affect our flexibility to offer discounts and other affordability initiatives. These include pricing controls, reimbursement mechanisms and cost-containment measures, plus a high frequency of regulatory changes.

We continue to expect downward pressure on prices, affecting the profitability levels of our medicines in various markets. In addition, supply chain complexity increases costs, and the economic downturn is adversely affecting ability to pay (where applicable).

There are also obstacles such as rising prices for new medicines; shortages and stock-outs, especially to treat NCDs, and a growing problem of counterfeit medicines entering the supply chain.

Progress highlights

2022 update



Sustainability in action



Launch of Global Patient Affordability Programmes Dashboard

In 2022, with demand increasing for preventative and therapeutic healthcare, we took action to ensure an affordability mindset was embedded alongside our business goals. We created an internal Global Patient Affordability Programmes Dashboard, based on reliable, consistent data, that can easily be viewed at global, regional, and country levels. We also generated a bank of success stories to show the range of initiatives being undertaken. The Dashboard enables us to standardise our approach and provide

guidance to expand our affordability programmes, in new countries or disease areas, while learning from best practice sharing.

To ensure consistency across the company we aligned on the key performance indicators and definitions. We now have a view across markets running similar programmes, enabling insights into the performance of different initiatives. This has raised the standard of internal reporting which provides us with valuable data to share internally and externally. In 2022, we tracked 158 active programmes across 26 countries, mainly but not exclusively in LMICs,⁹ reaching more than 1.27 million patients.

We now have a view across markets running similar programmes, enabling insights into the performance of different initiatives. This has raised the standard of internal reporting which provides us with valuable data.

Access to innovative therapies for lung cancer

The focus of this programme was a targeted therapy for lung cancer, with the objective to optimise access in LMICs⁹ through an access-driven reimbursement programme.

It is based on five core elements:

- Revisiting the pricing approach to apply a “right pricing model” based on gross price, net price, and tiered pricing
- Engaging HCPs – through education, resources, outreach, engagement
- Shaping policy to prioritise support for oncology funding
- Supporting healthcare systems – testing, diagnosis, tumour group establishment, clinics, cold chain support, infusion on site or at home
- Strengthening marketing company capabilities – local commitments to cross-functional planning, pricing and access strategy

The initiative has initially been implemented in five markets: Egypt, India, Malaysia, Mexico and Vietnam. Collaborating with the International Market Access team each market has identified local needs, including diagnostics, patient support programmes, resourcing, and capability assessment. It will reach more than 10,000 additional patients in the next five years in international markets.

PUMUA programme expansion

Our PUMUA “Breathe” initiative makes low-cost, high-quality respiratory medicines available at a significant discount in selected countries in Africa. The programme also makes respiratory equipment for asthma management available in all participating countries. Building on the 800 nebulisation stations activated in 2021 in Kenya, Ghana, Côte d'Ivoire, Ethiopia, and Senegal, in 2022 an additional 123 nebulisation stations were activated in Côte d'Ivoire, Senegal and Cameroon. The programme also established Centres of Excellence (COEs) for asthma care, starting in Kenyatta National Hospital, Kenya. In total, 20 COEs were established in Kenya in 2022, for medical and scientific education, patient experience mapping and support.

Making genetic testing for ovarian cancer affordable

In 2021 we entered into a partnership with diagnostics company AmoyDx to make genetic testing for ovarian cancer more affordable, in order to improve access to testing which identifies homologous recombination deficiency (HRD), a biomarker for cancer. By the end of 2022, we had installed a total of 14 AmoyDX labs for HRD testing in LMICs⁹ across our International Commercial region, which together tested 6,220 patients by year end, in addition to 3,915 tested in 2021. 805 patients were enrolled in the HALO study, to determine the prevalence of HRD in women with newly diagnosed ovarian cancer, with a positivity rate of 48-50%, thereby identifying more patients that could benefit from innovative therapies. 57 sites were part of the initial study and results are expected in mid-2023.

“Nesmet Hawa” – a breath of air for children in Egypt

In order to address a gap in home-based care for children with asthma in Egypt, we partnered with Medel, a medical devices company and the Paediatric Association for Asthma and Nutrition, to launch an initiative to provide access to nebulisers at a significant discount and support affordable access to treatment for asthma. Medel reduced the price of the nebulisers by 50% and AstraZeneca contributed a further 20%, bringing the total discount to 70%. The programme was launched in March 2021 and by the end of October 2022 had reached 15,000 patients. Awareness of the programme was supported by a campaign launched on digital and media channels.

Health system resilience

Why it matters

During the COVID-19 pandemic, we saw the need for health systems to adapt to ever-changing societal and economic circumstances to cope with shocks and crisis situations. All while continuing to provide services and deliver improved health outcomes, particularly in LMICs.⁹

Description

Strengthen health systems by advocating for health system reform and policy; building capabilities to address unmet medical need, improve access to quality healthcare and provide solutions along a continuum of care – from prevention, awareness, diagnosis, and treatment to post-treatment and wellness; and committing to disaster relief, grants, and donations.

Approach

Sustainable healthcare for all requires investment in strengthening health systems, to deliver an infrastructure designed to be responsive to the needs of the population it serves. Each of our Access to healthcare focus areas aims to contribute to health system resilience. We are investing in ground-breaking global collaborations, company initiatives, local partnerships and fast-tracked innovation to give access to higher quality healthcare for more people worldwide.

Specific activities include:

- Improving preparedness for future shocks and enhancing international coordination on key processes such as scenario planning, response protocols and reserve capacities
- Optimising the location and focus of patient care through digital technologies
- Addressing the social, economic, and ecological costs of disease through targeted prevention measures
- Improving the effectiveness of care for chronic diseases through defining, implementing, and monitoring improved quality of care standards
- Working with stakeholders on multi-sector prevention and control measures that are optimised to address risk factors and local challenges, while leveraging our experience in health programming

We aim to build the capabilities of healthcare systems to best respond to patient needs by:

- Ensuring programming is locally and culturally appropriate
- Using our global footprint to scale partnerships and collaborations
- Establishing mechanisms for collaboration with our partners, for example through joint coordination, planning, follow up and agreement to a set of core indicators for monitoring and evaluation

Challenges

The shifting burden of disease, financial and geopolitical crises and the frequency of extreme weather events, all put pressure on health systems. These may range from national or local disruptions to pandemics with substantial global impact such as COVID-19 and the recent Ebola outbreaks.

Increasing the capacity of health systems to respond more quickly and effectively to new challenges may increase health system resilience.

We work across the company to develop an innovative product portfolio that drives positive global health outcomes, and devise access programmes that focus on strengthening healthcare systems through training of healthcare providers. With this approach we respond to the need for medicines and treatments, while also supporting longer-term health system resilience.

Key targets and progress

2025 target

Train 170,000 healthcare workers (cumulative) to strengthen health systems throughout the world through our Healthy Heart Africa and Healthy Lung programmes.

Status: On plan

2022 update

More than 126,600 healthcare workers trained (cumulative).³

Health facilities activated

2022 update

1,258 healthcare facilities (cumulative)

were activated through our Healthy Heart Africa programme.⁴

>260,000 young people trained as peer educators in 39 countries through Young Health Programme¹²

Sustainability in action



Partnership for Health System Sustainability and Resilience (PHSSR)

This collaboration between the London School of Economics, the World Economic Forum and AstraZeneca continued its work to strengthen global health systems, now active in over 30 countries worldwide. Joined by other global level partners including Philips, KPMG, WHO Foundation and the Center for Asia-Pacific Resilience and Innovation, the PHSSR continues to expand and act as the driver for policy improvements in the countries where it is active. During 2022, the partnership's in-depth health system research progressed in 13 new Phase 2 countries, and main findings were presented at the PHSSR Global Summit in November 2022, covering key themes from workforce and health service delivery, finance and governance, to the role of technology in strengthening health systems. These latest findings highlight the importance of prioritising prevention and early intervention in NCDs, as well as climate change, to strengthen the resilience and sustainability of health systems.

Healthy Heart Africa (HHA) programme

Our HHA 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. By the end of 2022, the programme had conducted more than 32 million blood pressure screenings and trained over 10,600 healthcare workers since launch in 2014. In 2022, the programme expanded into Nigeria and entered into a new partnership in Zanzibar. In December, it was announced that the programme will expand into 10 more countries, starting in 2023. The 2022 Access to Medicine Index recognised the programme as an industry Best Practice in the category [“Scaling up inclusive business models to expand access to medicines for non-communicable diseases”](#).

ACT for Cancer Care

In March 2022, we launched [Accelerating Change Together \(ACT\) for Cancer Care](#), a new coalition which seeks to drive equitable access to innovative treatments and screening programmes to detect cancer earlier. In November 2022, we launched Cancer Care Africa under the ACT initiative (ACT; CCA), to address the burden of disease across the continent. Over the next three years, ACT; CCA aims to drive screening and diagnostics covering one million people across cancer types, and to provide training for more than 10,000 healthcare professionals across 100 oncology centres.

Latest PHSSR findings highlight the importance of prioritising prevention and early intervention to strengthen the resilience and sustainability of health systems.

Lung Cancer Policy Network launch

In 2022, the Lung Ambition Alliance, of which AstraZeneca is a founding member, established the [Lung Cancer Policy Network](#), an initiative aimed at elevating lung cancer as a policy priority worldwide, which launched with a report and an interactive map. The report, [‘Lung cancer screening: learning from implementation’](#), draws on expertise and experience from local lung cancer screening programmes around the world to outline how specific challenges have been addressed in practice, with the aim of providing useful guidance for implementation elsewhere.

The [interactive map](#), designed to facilitate policy-level discussions, collates research conducted globally on the implementation of non-invasive low dose computed tomography (LDCT) screening – which is more precise and uses less radiation than a conventional CT scan – enabling users to explore case studies that can inform and promote LDCT implementation in new locations. The map also allows users to compare simple country-level indicators to help build an understanding of the current policy contexts for the early detection of lung cancer.

Young Health Programme (YHP)

Since 2010, AstraZeneca's YHP has empowered young people aged 10 to 24 to make informed choices about their health, to reduce the risk factors that contribute to NCDs such as cancer, diabetes, respiratory and heart disease. In collaboration with our partners around the world, including UNICEF and Plan International, the YHP supports research, advocacy, education and the development of young people. By the end of December 2022, the programme had reached over nine million young people with health information and trained more than 260,000 young people as peer educators in 39 countries. In 2022, through our partnership with UNICEF, eight policies and laws have been adopted, updated or upheld in six countries to be more protective of adolescent health.

Girls Belong Here

To further our commitment to gender and health equity, our YHP awarded \$160,000 in grants to 16 small, women-led non-profit organisations working to improve young people's health in their communities. We also welcomed over 580 young women from 41 countries into our offices around the world during International Day of the Girl, in collaboration with Plan International, to deepen the awareness of issues perpetuating gender and health inequalities and to provide unique leadership opportunities. Young women stepped into senior leadership positions for a day, shared their views and engaged in discussions on important health and sustainability topics, with many receiving ongoing mentorships and coaching from our employees.

Environmental protection

The health of the planet impacts all life

Our ambition

Accelerating the delivery of net-zero healthcare, proactively managing our environmental impact across all activities, and investing in nature and biodiversity

Connection to health

Supporting a healthy environment improves health outcomes and helps prevent the onset of certain diseases likely to become more prevalent in a changing climate



Contributing to the [Sustainable Development Goals](#), a universal blueprint for prosperity for people and the planet, now and into the future.

- SDG 6 | Clean water and sanitation
- SDG 7 | Affordable and clean energy
- SDG 12 | Responsible consumption and production
- SDG 13 | Climate action
- SDG 15 | Life on land
- SDG 17 | Partnerships for the goals

2022 performance

>10.5 million

trees planted in Australia, Indonesia, Ghana, US and the UK since 2020

97.5%

of paper-based product packaging materials used were supplied from sustainable sources achieving the 2022 target¹

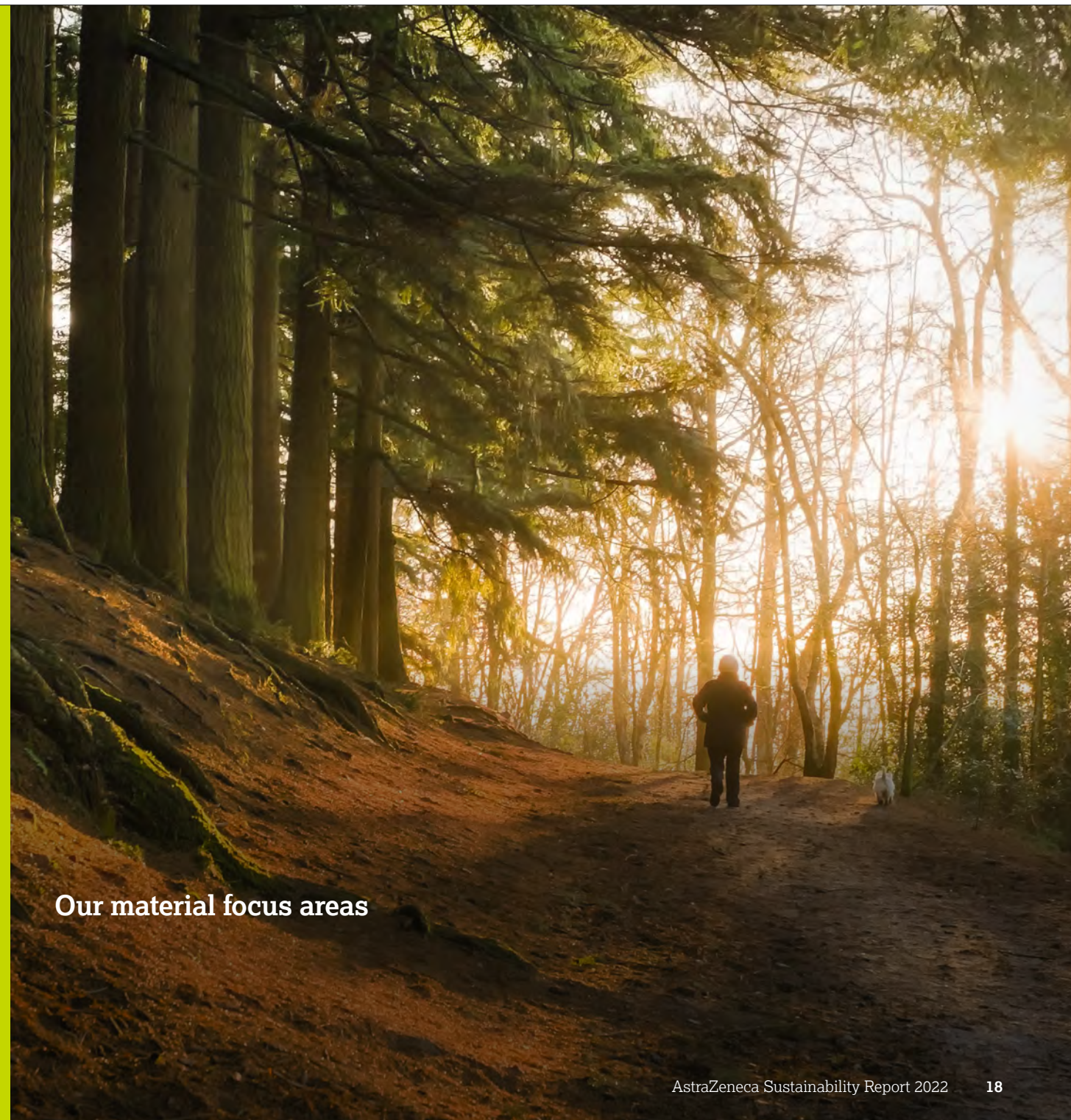
750+

material suppliers with a critical role in patient supply screened to understand climate vulnerability in the upstream value chain for 10 selected medicines

480+

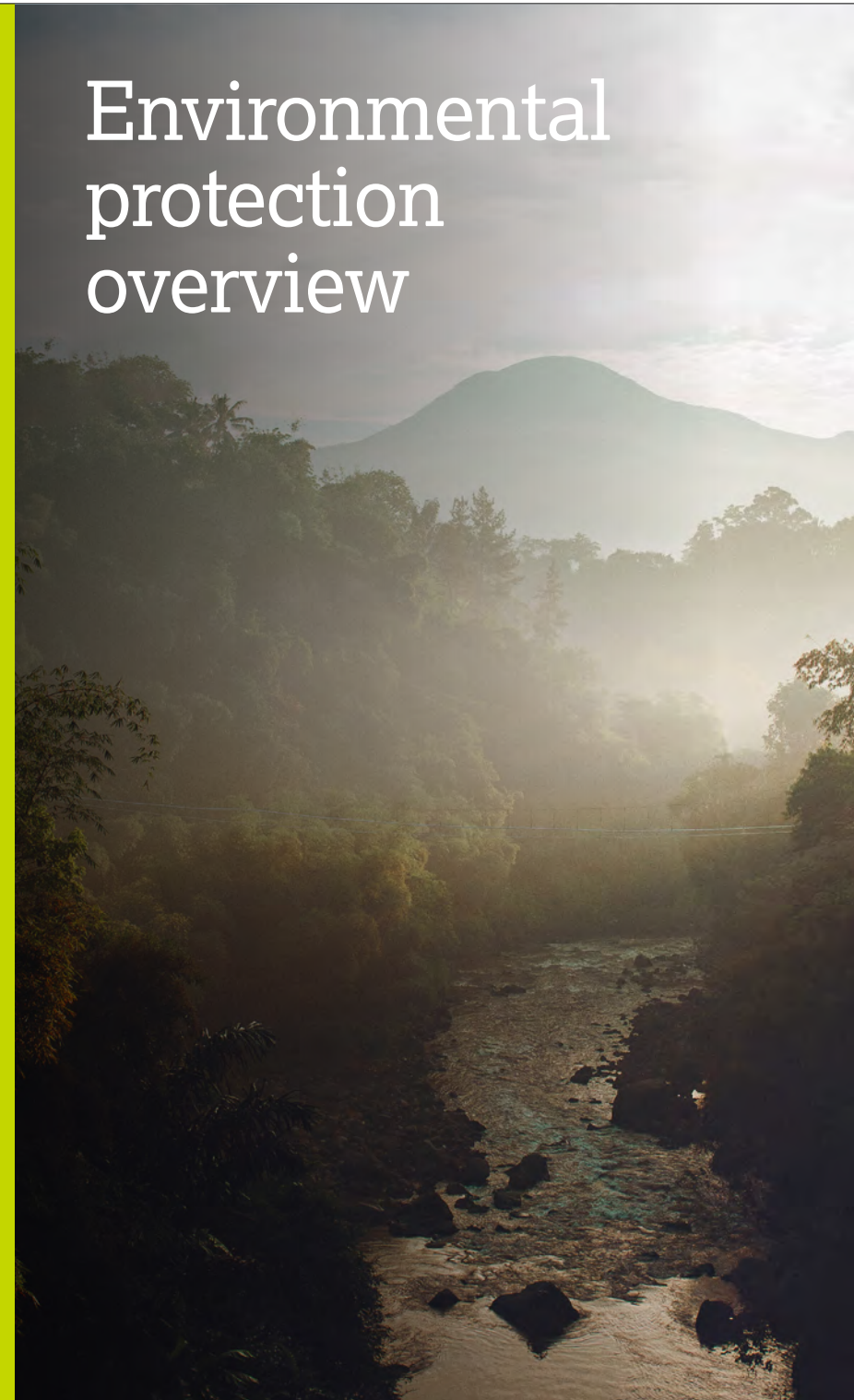
suppliers partnered with to assess and disclose their greenhouse gas emissions to the CDP Supply Chain programme

See [Sustainability Data Summary](#) for full metrics and methodology



Our material focus areas

Environmental protection overview



Beyond the benefits of our medicines to patients, our contribution to society must respect our environment and ensure the sustainable use of the planet’s finite natural resources. We know that a healthy environment is critical for human health.

The big picture

Climate change and the degradation of ecosystems are already impacting human health and undermining the capacity of health systems. Bold climate action and investments in nature and biodiversity are vital to improve health outcomes. The environmental challenge is multifaceted – a systems-level approach is needed to deliver better healthcare outcomes with a lower environmental footprint.

There is increasing focus on the environmental footprint of goods and services and companies are under greater environmental scrutiny, reinforcing the need to have robust scientific evidence underpinning environmental targets and performance.

Approach

At AstraZeneca, we manage our Environmental Protection material focus areas in an integrated way. Sustainable product design, sourcing, and manufacturing means lower natural resource use, reduced chemical and water demand, and less waste and pollution, as well as a lower carbon footprint.

We are using a science-led approach to lower the economic and environmental

burden of healthcare, while improving health outcomes. To achieve this, we are accelerating the delivery of net-zero healthcare, proactively managing our environmental impact across all activities, and investing in nature and biodiversity. We are demonstrating that business growth can be achieved while reducing environmental impacts; but there is more to do. By investing in new ways of working and through innovative partnerships, we can maximise the efficiency of how we use natural resources to further reduce our footprint.

Through our Ambition Zero Carbon strategy, we are pursuing ambitious decarbonisation targets, accelerating our progress towards net-zero, and managing the risks and opportunities presented by climate change.

Governance

In addition to our general approach to governance, our executive-led Ambition Zero Carbon Governance Group is accountable for the delivery of Ambition Zero Carbon. In 2022, this high-level group included our CEO, CFO, the EVP, Sustainability and Chief Compliance Officer, and the EVP, Operations and IT.

Since 2021, delivery of Ambition Zero Carbon Scope 1 and 2 commitments has been included in our executive incentive arrangements for the Performance Share Plan (PSP), with a weighting of 10%.

Environmental Management System

The guide for our Environmental Management System is embedded in our Code of Ethics supported by our Safety, Health, and Environment (SHE) policy standard.

Our SHE management system is implemented in line with recognised international standards such as ISO 14001 and 50001. It ensures the environmental risks of our activities are assessed, operational controls are in place, checks are completed through a risk-based audit programme led by an independent organisation and there is an annual management review process.

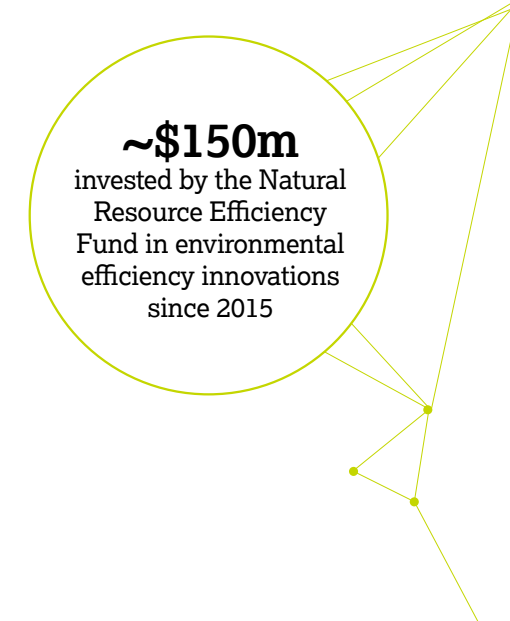
Natural Resource Efficiency Investment

To drive our climate action initiatives and meet our environmental targets, we have a dedicated Natural Resource Efficiency Fund, which has invested approximately \$150 million in environmental efficiency innovations since 2015. This, together with other central capital investments, has seen a further \$26.6 million spent² in 2022, including 31 new projects.

Task Force on Climate-Related Financial Disclosures (TCFD)

A TCFD steering group with cross-functional membership has oversight of the physical and transitional risks and opportunities posed to AstraZeneca by climate change. The identification and assessment of climate risk forms 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 are incorporating climate resilience across our operations and value chain, mitigating the risks, and exploring the opportunities that the transition to a low carbon economy presents to the healthcare sector.

Material focus areas





Ambition Zero Carbon

Why it matters

Climate change is increasing levels of ill-health, including a rise in chronic conditions such as heart disease, stroke, lung cancer and respiratory diseases. We are working to deliver net-zero healthcare, acknowledging that approximately 5% of global greenhouse gas (GHG) emissions are emitted from the healthcare sector.³

Description

- Achieve net-zero by avoiding GHG emissions through our facility and product design, maximising our energy efficiency, shifting to renewable energy sources, transitioning to an electric vehicle (EV) fleet, and investing in nature-based removals to compensate for any residual GHG footprint.
- Build resilience by managing the physical (sites, supply chain) and transitional (regulatory, market and product) risks and opportunities arising from climate change in the value chain through adaptation and business continuity planning.

Approach

We follow the science and focus our activities on delivering absolute reductions in all our direct and indirect GHG emissions sources across the value chain – Scopes 1, 2 and 3.

Through Ambition Zero Carbon, we are on track to reduce GHG emissions from our global operations (Scope 1 and 2) by 98% by 2026 from a 2015 baseline. We were one of the first seven companies to have our net-zero Scope 1-3 targets verified under the Science-Based Targets Initiative's Net-Zero Corporate Standard.

We were the first pharmaceutical company to sign up to all three of the following Climate Group initiatives: by the end of 2025 we will reduce absolute energy use and double energy productivity compared with 2015 (EP100); we will use 100% renewable energy for electricity (RE100) and heat; and we will maximise our transition to EVs in our road fleet (EV100).

We aim to halve our entire value chain footprint by 2030, on the way to a 90% reduction by 2045 from a 2019 baseline. By 2030 we will become carbon negative for all residual emissions.

We are engaging across our entire value chain to measure and reduce our Scope 3 emissions. We have set the goal that by the end of 2025, 95% of our spend in Scope 3 Categories 1 (purchased goods and services) and 2 (capital goods), and 50% of our spend in Scope 3 categories 4 (upstream transportation) and 6 (business travel) will be with companies that have science-based targets (SBTs) to limit global warming to <1.5C.

We will launch our first next-generation respiratory inhalers with near-zero climate impact by 2025.

To address current supply, access and infrastructure constraints (see Challenges below), in 2022 we have increased our focus on energy efficiency and on-site renewables, strengthened internal energy reduction targets and in 2022 invested \$26.6 million² through our Natural Resource Efficiency Fund together with other central capital investments.

Challenges

Variations in supplier maturity on climate issues create challenges in aligning our expectations of suppliers. Working towards an increased understanding is resource-intensive and creates further challenge for the scale-up to a significant proportion of the supply chain.

Access to renewable sources of heat will continue to be a challenge, exacerbated in 2022 by the energy crisis and a slowdown in supply of relevant goods. The EV transition is being impeded – and even prevented in some markets – by a lack of vehicles, EV infrastructure and supply chain issues. This situation is expected to continue for the medium-term.

From 2022, and for the foreseeable future we are not able to purchase renewable electricity certificates for our operations in Russia, leading to an increase in reported Scope 2 emissions.

The potential changes to GHG accounting rules for market instruments in the World Resources Institute's GHG Protocol Corporate Standard create significant uncertainty at a time when we are making long-term investment decisions, for example on biomethane production facilities. We continue to engage with the consultation processes.

Key targets and progress

2026 target

Reduce absolute Scope 1 and 2 GHG emissions by 98% from 2015 base year.

Status: On plan

2022 update

Reduced Scope 1 and 2 GHG emissions by 59.3% since 2015, a reduction of 383 kilotonnes CO₂e.

2030 and 2045 target

Reduce absolute Scope 3 GHG emissions by 50% by 2030 and 90% by 2045, from a 2019 base year.

Status: On plan

2022 update

Total Scope 3 increased by 8.6% from a 2019 baseline and Scope 3 intensity reduced by 28.1%. Significant increase in use of primary data and suppliers setting SBTs will support future absolute emissions reductions towards 2030 target.

Our 2022 Scope 1 and 2 emissions are **59.3%** below our 2015 baseline, on track to achieve our targets

Ambition Zero Carbon

We will follow the science and deliver absolute reductions in all our direct and indirect sources, of greenhouse gas (GHG) emissions across our value chain (Scopes 1, 2 and 3), doing our part to limit the impacts of climate change while unlocking opportunities to deliver improved healthcare in a low carbon economy.

We follow a hierarchy to achieve our ambitions



SBTi Verified

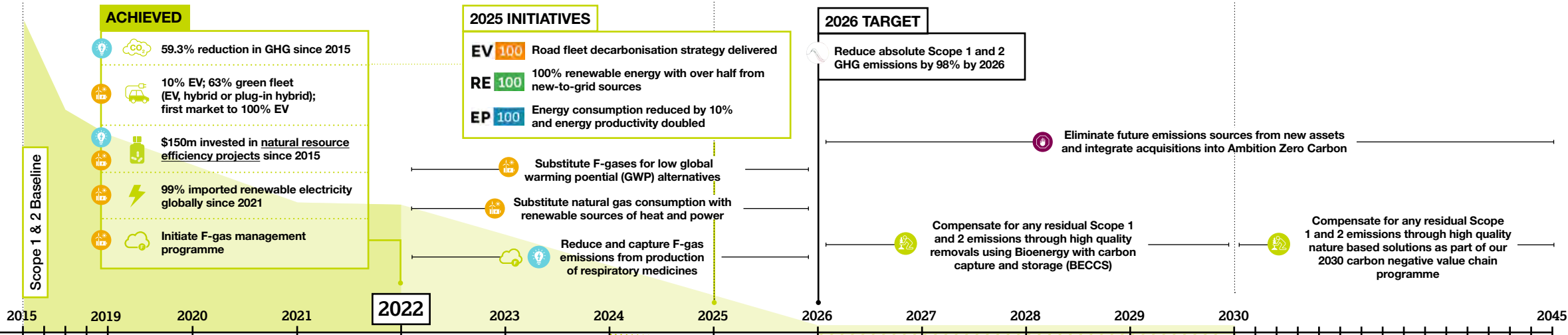
Scope 1 & 2 reduction targets are measured from a 2015 base year. Scope 3 reduction targets measured from 2019 base year

Scope 1 & 2

Emissions from our own operations (site and fleet)

Target baseline emissions (2015):
647 ktCO₂e

2015 baseline emissions (ktCO ₂ e)	
Fleet	93
Heat	202
Electricity	315
F-gases & Other (100 year GWP)	38

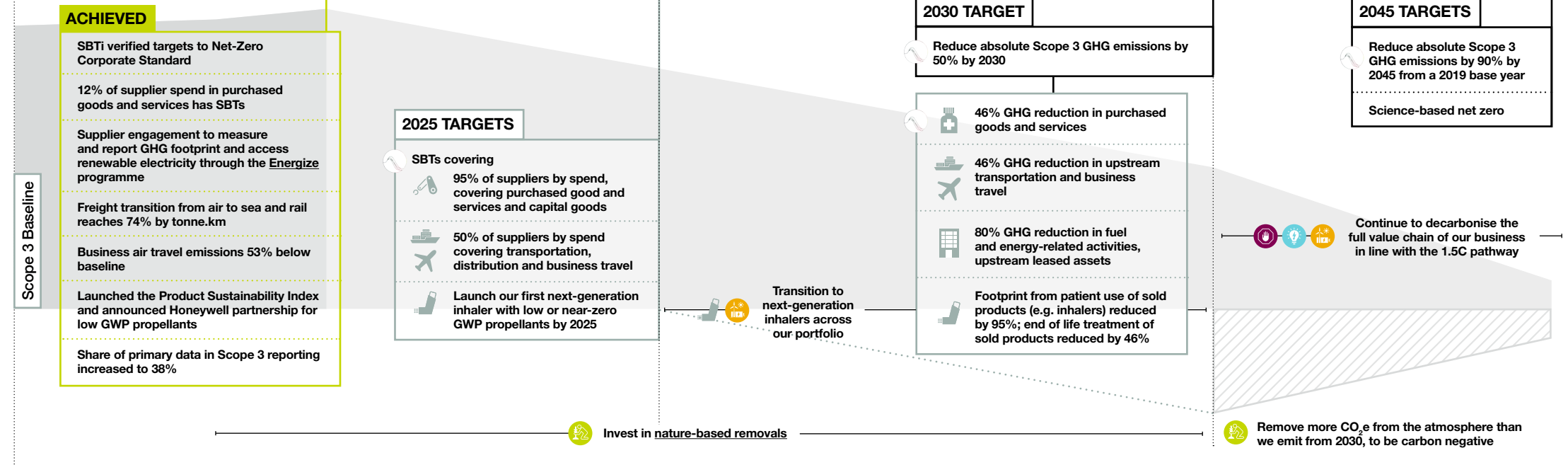


Scope 3

All other indirect emissions that occur in our value chain

Target baseline emissions (2019):
5,884 ktCO₂e

2019 baseline emissions (ktCO ₂ e)	
Purchased goods & services and Capital goods	3,942
Fuel and energy-related	83
Upstream transportation/distribution	248
Waste treated off-site	21
Business travel	327
Upstream leased assets	42
Use of sold products	1,013
End of life treatment of sold products	21
Other: Employee commuting; Downstream transportation/distribution; Downstream leased assets	187



Sustainability in action



Delivering on our renewable energy strategy

In 2022, we invested \$26.6 million in energy efficiency and on-site renewable energy through our dedicated Natural Resource Efficiency Fund together with other central capital investments. We have achieved a 14.4% absolute reduction in total energy consumption from our 2015 baseline and we are committed to using 100% renewable energy sources to meet all our needs by the end of 2025. In 2021, we started work to look at how we can maximise the positive impact of our renewable energy procurement and in 2022 identified three focus areas for development to align with our ambition to lead in sustainability:

- 1. Additionality** – investments and energy purchase agreements deliver on-site or new-to-grid renewable energy capacity. We are aiming for over half of our renewable energy globally to come from new sources.
- 2. Geographic relevance** – energy purchase agreements deliver real world GHG emissions reductions by displacing fossil energy sources in the grid systems where we consume that energy.
- 3. Temporal relevance** – energy attribute certificates (EACs) that are tagged with the time and date of generation can improve the utilisation of renewable energy sources and deliver real world GHG emissions reductions. We are aiming to better understand and improve the alignment between when our energy is generated and consumed.

Clean power

In 2021, we transitioned to 100% imported electricity from certified renewable sources through purchasing certificates from the same country, and same year, as our consumption. As we were unable to purchase renewable electricity certificates for Russia in 2022, this reduced to 99%. In 2022, we joined the Eurelectric-led 24/7 taskforce to learn about measuring and improving the temporal relevance of our energy procurement. We recognise the many benefits of self-generated renewables to site energy costs, resilience, temporal relevance and employee engagement, and have committed \$23.1 million over 2022-2024 to on-site solar photovoltaic (PV) installations at ten sites in eight countries.

Once operational, the total output from all our on-site solar PV will be 27 GWh of electricity, equivalent to over 3% of our global electricity use. There is a limit to the scale that can be achieved through on-site solar PV, and so to deliver additional renewables with good geographic and temporal relevance, we are aiming to meet the majority of our electricity needs in our primary consumption locations – Sweden, UK and US – through new power purchase agreements (PPAs) in the grids where we operate.

Clean heat

Access to certified low and zero carbon fuels and imported heating and cooling sources globally is very limited. We are striving to develop new sustainable sources in order to achieve our Ambition Zero Carbon targets. Our approach to each of our locations prioritises demand reduction in the first instance and the assessment of electrification options, such as heat pumps and electric boilers, while also looking at substitution of fossil fuels, mostly gas, with sustainable alternative fuels and a preference for innovative and new to grid solutions.

Building on a UK partnership for biomethane that was signed with Future Biogas in 2021, in 2022 we have focused on developing a solution for our US sites that are collectively our largest consuming market for fossil gas globally. We are investing in energy efficiency and some selective electrification to reduce our gas demand, while working on a collaboration opportunity for the production and supply of renewable natural gas (RNG) or biomethane.

Value chain collaboration

- 1. SMI:** Through the Sustainable Markets Initiative Health Systems Task Force, convened by AstraZeneca CEO Pascal Soriot, we are partnering across the healthcare sector to accelerate the delivery of net-zero health systems, including through decarbonising supply chains and patient care pathways. At COP27 in Egypt, we launched sector-first commitments and actions to decarbonise supply chains, patient care pathways and leverage digital innovation.
- 2. Suppliers:** In 2021, we joined the launch of Energize, a collaboration between Schneider Electric and 10 global pharmaceutical companies to facilitate access to renewable power at scale for our suppliers. Since launch, the Energize collaboration has grown to 16 sponsoring companies and formed its first PPA buyers' cohort. So far, over 210 AstraZeneca suppliers registered with the programme and 54% undertook Scope 3 training.
- 3. Products:** We are tackling 15% of our Scope 3 footprint through product innovation.

- 4. Data:** We are working to build transparent supply chains by asking our partners to assess and disclose their GHG emissions to the CDP Supply Chain Programme, with 480 suppliers (58% of in-scope spend).

Through the SMI we are partnering across the healthcare sector to accelerate the delivery of net-zero health systems, including through decarbonising supply chains and patient care pathways.



Sustainable Markets Initiative

Puerto Rico solar PV and batteries delivering clean energy and climate resilience

This project, operational in 2022, included a \$3.2 million investment in 2021 in a solar field with battery energy storage at our iPR Pharmaceuticals AZ Puerto Rico manufacturing site. Coupled with a combined heat and power plant installed in 2018, the energy infrastructure reduces GHG emissions and imported energy needs and increases site resilience to hurricanes that are becoming stronger due to climate change.



Product sustainability

Why it matters

People and the planet benefit from those medicines which have the smallest possible environmental impact, yet maintain the highest medical efficacy and safety standards. As technologies and healthcare systems evolve, so should solutions to reduce energy, water, material use, waste and pollution generated from designing, manufacturing and delivering medicines to patients.

Description

Follow processes throughout the life cycle of our products with the aim of understanding and addressing their environmental impact; from discovery through development and production, to launch of a new product and to end of product life.

Approach

To deliver medicines that improve patient outcomes and minimise the burden on the planet, we evaluate and aim to address the environmental impact of materials and processes across the entire product value chain.

We have implemented an internal Product Sustainability Index (PSI) to understand the environmental impacts of our products and inform improvement plans. We also lead our industry in the management of [Pharmaceuticals in the Environment](#) (PIE) and promote responsible product stewardship.

Sustainable decision-making and environmental improvements are embedded across the product life cycle:

- Integrated business processes to ensure safety, health and environmental aspects are considered throughout drug development, with guidance on environmental assessment of active pharmaceutical ingredient (API) manufacturing, formulation, packaging and devices
- Targets for API manufacturing emissions from both AstraZeneca and our external supply sites
- We conduct, fund and support research on the environmental impact of our products and apply the principles of green chemistry in our business
- Our life cycle assessment (LCA) programme determines the type and magnitude of environmental impacts across our product value chains and is in line with ISO standards 14040 and 14044

- In 2022 we completed our first LCA studies within the Rare Disease Therapy Area, as part of the integration of Alexion into our Product Sustainability programmes
- In 2021, we were the first company to launch an Ecopharmacovigilance (EPV) [dashboard](#). This shares data on the relative risks of APIs where traces have been detected in the environment as an unintended, but inevitable, consequence of patients using our life-changing medicines. The data are made transparent in the [Environmental Risk Assessment documents](#) on our website

Challenges

Emerging sustainability policies: Several essential medicines for respiratory diseases including pressurised metered-dose inhalers (pMDIs) rely on fluorinated gases (F-gases) as propellants. Governments are drafting legislation to phase out F-gas usage. AstraZeneca supports the goal of net-zero targets recognising the significant positive impact it could have on climate and health. It is critical, however, that any climate legislation evolves to avoid the risk of limiting access to life-saving inhaled medicines and thus, to protect both people and the planet.

As part of the European Commission's pollution reduction strategy, updates and changes to pharmaceutical and chemicals regulations could influence the way medicines are manufactured and approved in future. Monitoring these regulatory risks and proactively managing the chemicals used in our processes will help minimise the impact on supply of medicines to patients.

Key targets and progress

2025 target

Ensure 90% of total syntheses meet resource efficiency targets at launch.⁴

Status: Lagging

2022 update

Since 2015, 67% of projects (six of nine) have met defined resource efficiency targets at launch. In 2022, we have integrated data from our monoclonal antibody (mAb) products for the first time, but one mAb product launched in 2022 narrowly missed the target. Although there were no in-scope small molecule API products launched, we achieved a process mass intensity (PMI) reduction of 23% across the late stage project portfolio.

2022 target

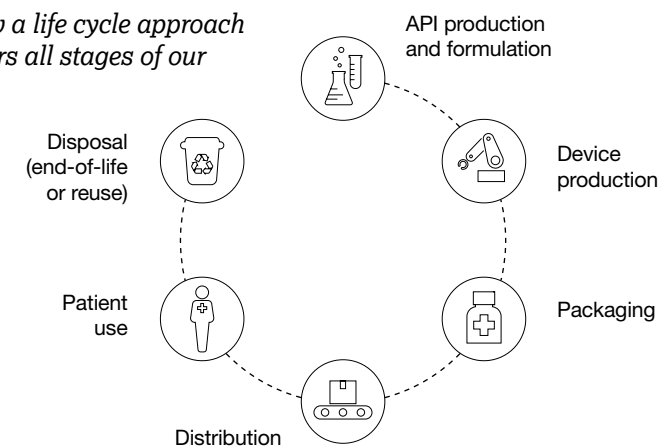
Ensure 100% of AstraZeneca site discharges and ≥90% of supplier site discharges are in compliance with safe API discharge concentrations.

Status: On plan

2022 update

100% of API discharges from AstraZeneca sites and 92% of discharges from direct suppliers were in compliance.⁵

We follow a life cycle approach that covers all stages of our products



Sustainability in action



Minimising the environmental impact of pharmaceuticals for more sustainable healthcare

As part of our commitment to drive thought leadership and innovation to manage [Pharmaceuticals in the Environment](#), we lead the Innovative Medicines Initiative (IMI) [PREMIER](#) project, a public-private partnership between the European Commission and the European Federation of

Pharmaceutical Industries and Associations ([EFPIA](#)). One aim is to develop tools to identify potential environmental risks of APIs earlier in drug development and make these tools and data more accessible to all stakeholders. In 2022, [PREMIER published a concept letter](#) in collaboration with regulators, academics, and industry, to launch a dialogue around greener design that could help minimise the impact on the environment after they are excreted from patients.

Work to understand the sourcing of natural resources will continue to ensure we minimise any adverse impacts on nature.

Demonstrating reduced environmental impact through prevention of disease

In 2022, we published two care pathway [case studies](#) for seasonal influenza and chronic kidney disease. These studies estimate the GHG emissions associated with the management of these illnesses in the UK.

Strengthening the approach to Environmental Risk Assessment (ERA)

We are working with our industry to prepare the [extended ERA \(eERA\) proposal](#) to strengthen the ERA process in Europe. This includes providing a framework to address concerns over pharmaceuticals in the environment, while maintaining supply of medicines to patients.

Sustainable packaging target achieved

In 2022, we conducted a comprehensive survey of all our paper-based packaging suppliers. We determined that 97.5%¹ of materials used in our products were sourced from sustainably managed forests, achieving our sustainable packaging target. Work to understand the sourcing of natural resources will continue to ensure we minimise any adverse impacts on nature.

Next-generation pressurised metered-dose inhaler (pMDI)

In 2022, AstraZeneca announced it was partnering with Honeywell to deliver on a key product-related element of our [Ambition Zero Carbon](#) strategy – to develop the next-generation pMDI – using HFO-1234ze, a near-zero global warming potential (GWP) propellant. This is a significant innovation given the level of clinical need.

We expect this fixed-dose triple-combination therapy to be the first medicine to transition to the next-generation pMDI platform, subject to regulatory approval, and made significant progress in 2022 to advance its clinical programme in coordination with key regulatory authorities. Positive Phase I data were presented at the 2022 American Thoracic Society (ATS) congress and British Thoracic Society (BTS) Winter Meeting.

Collaborating with industry on best practice in the management of manufacturing discharges

As well as our own Safe API Discharge programme, AstraZeneca has been supporting the industry through initiatives such as the Inter Associations Initiative (IAI) [Responsible Manufacturing Effluent Management Technical Guidance Document](#) and playing a leading role in the promotion of best practice through the [Pharmaceutical Supply Chain Initiative \(PSCI\)](#).

Continuous manufacturing

We have made a significant investment to grow our continuous API manufacturing capability with a pilot scale facility scheduled to be commissioned in 2023 in the UK, at a cost of \$19.9 million. This will help realise more opportunities for continuous processing applications within API manufacture, and bring the benefits of the enhanced sustainability performance of this technology when compared to batch processing. Demonstrating our commitment to embracing a science-led approach to improve API sustainability, resulted in a successful application for external grant funding of \$3.0 million, through the UK's Medicines and Diagnostics Manufacturing Transformation Fund (MDMTF).

Our scientists recently developed a new continuous manufacturing process for a key material from our oligonucleotide platform. Transitioning from batch to continuous manufacturing resulted in higher yield, increased throughput, reduced waste, lowered solvent volumes and energy consumption, and required fewer process reagents. Together, these improvements considerably lowered the environmental footprint of the material. LCA studies confirmed that the continuous process outperformed the batch process by greater than 24% across all impact categories modelled, including a 33% reduction in GHG emissions. This example illustrates that continuous manufacturing technology has a fundamental role to play in the delivery of our [Ambition Zero Carbon](#) targets.



Natural resources

Why it matters

The conservation and sustainable use of natural resources and the protection and restoration of ecosystems is vital to shape a healthy future with resilient people and communities, building harmony between society and the natural environment.

Description

Natural resources are essential to produce our medicines and operate our sites.

We are committed to:

- Reducing our impact on the planet through the efficient, circular use of water and other natural resources across the value chain to ensure responsible sourcing, consumption, production, and disposal.
- Protecting and restoring ecosystems to improve health outcomes and tackle environmental drivers of disease, such as water and air quality, through our focus on water stewardship and biodiversity.

Approach

We are committed to reducing our impact on the planet and investing in nature and biodiversity to benefit planetary and societal health. We recognise that adopting circular business approaches and implementing efficient processes to develop and produce our medicines is key to reducing natural resources used in our value chains. We are leveraging our experience with lean manufacturing, which includes tools to enhance efficiency and eliminate waste, to build a framework for employees to identify and implement ideas that contribute to our environmental targets.

Our key targets aim to decouple water use and waste generation from business growth, supported by efficiency projects, partnership and engagement with suppliers, and designing out waste and pollution. In 2022, we increased the ambition of our water use target, now aiming to reduce water use by 20% from 2015 baseline levels in support of water security and resilience in the basins where we operate.

Moving beyond efficiency, within our direct operations, we are working in collaboration with key stakeholders to make positive contributions to nature and local communities where we operate while mitigating risks from a changing climate through Nature-based Solutions. Through our partnership with the World Wide Fund for Nature (WWF) Sweden, we are adopting water stewardship practices in alignment with the Alliance for Water Stewardship Standard and setting contextual targets at high-risk sites within our network. More detail on our approach to Water Stewardship can be found in our [position statement](#).

We are also furthering our commitment to assess and minimise environmental impacts from our supply chain. While making progress on our existing responsible sourcing targets, including sustainably sourced paper-based packaging and action plans for identified key [raw materials](#), we are building a risk-based approach to assess additional new and existing materials' impacts and dependencies on nature. This will help prepare us for future reporting to the Taskforce on Nature-related Financial Disclosures (TNFD) framework as it is further developed. More detail on our approach to Biodiversity can be found in our [position statement](#).

Challenges

Supply chains from the pharmaceutical sector are highly complex, making it difficult to define the impacts and dependencies on nature and prioritise our mitigating actions. Many materials needed to produce medicines are hazardous in nature and difficult to replace, generating waste streams that are challenging to reuse, recycle or repurpose. These factors mean cross-sectoral collaboration with suppliers, regulators, and other companies within our industry are needed to achieve the vision of creating a circular business.

Key targets and progress

2025 target

Reduce water use by 20% below the 2015 baseline.⁶

Status: On plan

2022 update

Water footprint was 3.75 million m³, a 18.7% reduction from 2015.

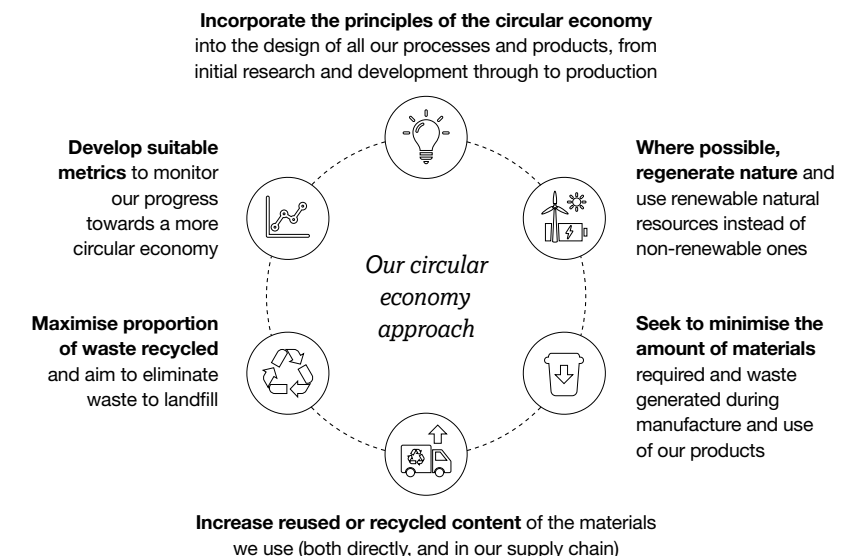
2025 target

Reduce waste by 10% below the 2015 baseline.

Status: On plan

2022 update

Total waste was 25,493 tonnes, representing 18.6% reduction from 2015.








Sustainability in action



AZ Forest

Through our commitment to plant and maintain 50 million trees worldwide by the end of 2025, we are investing in projects that will sequester carbon, restore habitats for biodiversity and bring wider co-benefits such as improving food security, building climate resilience, and rehabilitating polluted watersheds to improve local water quality. Forest restoration also helps to reduce the risks of natural disasters, has social and economic benefits for communities, and promotes physical and mental wellbeing. In partnership with non-profit organisations and expert delivery partners focused on global forest restoration, we have planted over 10.5 million trees in Australia, Indonesia, Ghana, US and the UK since 2020.

In 2022, AZ Forest was active in the following countries:

Australia	Indonesia	Ghana	UK	US
2025 target: Plant and maintain 50 million surviving trees by 2025				
25 million trees to support threatened species and build habitat connectivity across Southern and Western Australia.	10 million trees in the Citarum River watershed in West Java to combat the negative effects of deforestation, helping to reduce soil erosion and sedimentation in rivers.	Three million trees in the Bono East Region to reverse habitat degradation and foster community and ecological resilience focusing on natural forest restoration alongside agroforestry and sustainable woodlots.	Over one million trees across England and southern Scotland, restoring forests damaged by pests and diseases and building climate resilience.	One million trees initially focused on Delaware River watershed to improve water quality and sustain native wildlife.
2022 progress				
Over 4 million trees planted, using more than 260 species.	Over 3.1 million trees planted to date, introducing community-based agroforestry to more than 12,770 farmers.	Over 1.2 million trees planted, 1,043 in natural forest restoration and 220k fruit and timber trees.	Over 474 thousand trees planted.	Over 106 thousand trees planted.
				

CDP Double-A rating for Climate and Water and progress on Forest

We have been recognised for our sustainability leadership by CDP, who lead the global disclosure system that supports management of environmental impacts. For the seventh consecutive year, we achieved a double A-rating for our work on Climate Change and Water Security.

In 2022, our Forest score improved and we received B for timber, B for palm oil, and C for cattle products. We plan to continue our efforts through our Responsible Sourcing Framework.

Biodiversity

There is an urgent need to operate within planetary boundaries⁷ to halt and reverse biodiversity loss. We support the principles of the UN Convention on Biological Diversity (CBD) and share the 2050 vision of 'Living in Harmony with Nature'. Innovation is critical to reduce impact on biodiversity. For example, we are innovating to identify tools to address the environmental risks of pharmaceuticals and collaborating with experts to utilise leading forest restoration techniques and share learnings from our AZ Forest initiative. We are also working to follow emerging best practice, for example through disclosure to the Taskforce on Nature-related Financial Disclosures (TNFD)⁸, and by setting science-led biodiversity targets, as methodologies such as Science-Based Targets for Nature (SBTN)⁹ evolve. For more information see our [Biodiversity position statement](#).

Circularity at our Sweden sites

Our manufacturing site in Södertälje has embedded circularity to improve resource efficiency, including:

- A project to recycle condensate and rejected purified water to produce steam, expected to deliver savings of 150,000 m³ annually, 4% of our global water withdrawals, starting in 2023
- An onsite wastewater treatment plant that increases control over environmental impacts from site discharge. The heat in the outgoing water is recovered using heat pumps for use elsewhere at the site, saving at least 5 GWh annually

Our R&D site in Gothenburg completed a project to recover and reuse liquid helium, a vital component of superconducting magnets used in research that is a scarce resource, typically sourced from underground supply as a by-product of natural gas production. The site expects to recycle greater than 90% of liquid helium requirements.

Green labs

We have been named a competition winner for the third year in a row in the [My Green Lab 2022 Freezer Challenge](#).

Ethics and transparency

Ethical and transparent business delivers sustainable positive impacts for patients and society

Our ambition

Ensuring ethical, open, and inclusive behaviour across our organisation and value chain

Connection to health

Fostering a culture of doing the right thing across our value chain promotes health and wellbeing



Contributing to the Sustainable Development Goals, a universal blueprint for prosperity for people and the planet, now and into the future.

SDG 3 | Good health and well-being

SDG 5 | Gender equality

SDG 8 | Decent work and economic growth

SDG 17 | Partnerships for the goals

2022 performance

49.5%

senior middle management roles are occupied by women¹

8 countries

with supplier diversity programmes

83%

of employee survey respondents feel we have a 'speak up' culture²

See [Sustainability Data Summary](#) for full metrics and methodology



Our material focus areas

Ethics and transparency overview



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.

The big picture

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 to deliver life-changing medicines to patients.

Approach

Building trust by demonstrating integrity, transparency and fair treatment is central to everything we do, and supports our ability to operate, to innovate and to bring healthcare solutions to more people. Our shared Values underpin all our activities and serve as a compass to guide us.

Governance

We are committed to high ethical standards and full compliance with laws, regulations and internal policies. We adhere to the codes of IFPMA, EFPIA and PhRMA, of which we are members.

Our dedicated external webpage AZEthics enables any concerns to be raised anonymously.

Material focus areas

74 countries completed the biennial human rights survey

Our Values



We follow the science



We put patients first



We play to win



We do the right thing



We are entrepreneurial



Ethical business culture

Why it matters

An ethical business culture is essential to successful risk management, and we are committed to increasing public trust in our industry.

Description

Drive the highest standards of conduct and accountability beyond compliance including, but not limited to, anti-bribery and anti-corruption, product safety, use of human tissue and animals for research, human rights and building supplier capabilities to uphold high social standards.

Approach

The key elements of our commitment to an ethical business culture are:

- Our Code of Ethics and Values, which guide everything we do and ensure that we deliver life-changing medicines in a responsible way. We reinforce our commitment to ethical business conduct through annual Code of Ethics training, delivered to all employees and relevant third parties
- Values-based decision making. We emphasise values-based decision-making, and encourage our workforce and suppliers to adopt a sustainability mindset that embraces our core Values
- Visibility and transparency. Being visible and transparent about our business supports learning and development for our employees, suppliers and partners, and this is fundamental to meeting the expectations of patients, investors and broader society

Human rights

As signatories to the UN Global Compact (UNGC) for the last 12 years, we commit to its Guiding Principles to respect human rights. We are also committed to the International Labour Organization (ILO) standards on child labour and minimum working age. We aim to prevent human rights violations by proactively identifying any issues in our business and supply chain and responding promptly with appropriate action.

We continue to benchmark and improve our approach to Human Rights through industry working groups including Pharmaceutical Supply Chain Initiative (PSCI), Business for Social Responsibility (BSR) and Fair Wage Network with particular focus on due diligence, human rights audits and responsible sourcing initiatives.

Responsible supply chain

We expect all employees and contractors to follow our Global Standard for the Procurement of Goods and Services. We monitor compliance through assessments and improvement programmes, and all our suppliers and partners must meet our Global Standard on Expectations of Third Parties. We conduct audits on high-risk commercial suppliers (external manufacturing partners) to ensure appropriate practices and controls.

Challenges

The increase in data privacy and data transfer laws require us to ensure we meet regulatory and stakeholder expectations around data protection and security.

Our Global Privacy Standard as well as internal data governance committees enable us to keep focused on our internal capabilities and response to this evolving environment.

Key targets and progress

2025 target

Maintain 100% of active employees trained on the Code of Ethics.

Status: On plan

2022 update

100% of active employees trained on the Code of Ethics in 2022.³

2025 target

Improve the AstraZeneca global biennial human rights survey results and use Fair Wage Network data to more robustly assess our performance against local living wage data.

Status: On plan

2022 update

The biennial human rights survey has been completed by 74 countries and action plans are in progress. The analysis of Fair Wage Network data has enabled us to ensure we continue to pay a fair living wage globally.



Sustainability in action



Increasing understanding of the patient experience

In 2022, Alexion's Patient Experience Team expanded three unique patient-centric programmes, including into the wider AstraZeneca enterprise, that enable our employees to understand our patients' experiences across our rare disease therapeutic areas, and help improve health outcomes.

LEAP

Learn, Evolve, Activate, deliver for Patients

LEAP learning sessions immerse employees in the patient journey from the patients' perspectives. This simulation experience is integrated in the new AstraZeneca employee onboarding programme, market business launch planning and several other company programmes. In 2022, we developed five new LEAP simulations, conducted over 90 sessions worldwide, and over 1,700 employees participated in at least one session.

STAR

Solutions to Accelerate Results for patients

STAR is Alexion's patient value solution incubator. The STAR team meets with patients and other stakeholders to identify development solutions and strategies that create meaningful value for patients. Burden of disease, clinical data, patient insights and critical inflection points on the patient journey "moments that matter" are recorded in STAR Factbooks. In 2022, over 300 employees participated in one or more STAR Patient Forums. The STAR outputs have also been shared across several AstraZeneca teams, which are incorporating insights in their relevant experience maps and other programmes.

PFC

Patient Friction Coefficient

PFC is a model to inform and design patient-centric rare disease clinical trials. Feedback and insights are collected through interactive sessions with patients to minimise factors that could create a patient burden. In 2022, we conducted PFCs across five programmes and identified over 30 insights that inform protocol design or mitigations and enhanced support services.

Positive sourcing initiatives

Our Positive Sourcing Programme embeds responsible sourcing practices in end-to-end procurement processes and promotes ethical behaviour among our suppliers. Our ambition is to achieve 100% ethical spend, ensuring we only work with suppliers that share our **Values**. Our approach fosters our suppliers' progress on sustainability, enables us to innovate together on challenges and accelerates supplier diversity. To achieve our goal, in 2022 we continued our partnership with EcoVadis to assess our suppliers' environmental, ethical, and social performance, with 53% of our suppliers (by spend) that were assessed achieving an acceptable score of more than 45.

Animals in research

Animal studies remain a small, but necessary, part of the process of developing new medicines, until we have suitable technological alternatives.

Some studies are carried out to explore the science behind diseases and potential treatments, while other studies are required by regulators before new medicines can be put through trials in humans. In all cases, we maintain high standards of animal care and welfare and ensure that the **principles** of the 3Rs (Replacement, Reduction and Refinement of animals in research) are applied.

Power of Diversity – Interactive learning and engagement

To engage our global workforce in recognising, celebrating and learning more about the rich diversity within our organisation and the power we unlock by utilising it, we hosted a series of events and initiatives throughout the year to educate employees on inclusion and diversity (I&D) topics, build a sense of community, and further foster inclusion and belonging across AstraZeneca. The programming included senior executive-led panel discussions, video modules, local quarterly events and live global events with external experts reinforcing the core focus areas of our global I&D strategy.

We encourage our workforce and suppliers to adopt a sustainability mindset that embraces our core values.



Inclusion and diversity

Why it matters

We believe that inclusion is a right and diversity is a strength. Both make a fundamental contribution to the success of our company because innovation requires breakthrough ideas that only come from a diverse workforce empowered to challenge conventional thinking.

Description

Create a working environment where every employee has a sense of belonging, regardless of gender, race, ethnic origin, religion, age, disability status or sexual orientation. This includes equitable compensation, benefits and opportunities for development and advancement.

Approach

In 2022, we refreshed our global Inclusion and Diversity (I&D) strategy to allow us to prioritise and streamline our efforts in areas where we can drive lasting systemic change for our organisation and for society. Our work to refresh our I&D strategy was based on input from employees from across the company, who were both directly and indirectly involved with I&D programmes.

Our global I&D strategy includes three strategic focus areas:

- **Inclusion:** Cultivate inclusion and belonging
- **Diversity:** Build and sustain a diverse leadership and talent pipeline
- **Impact:** Advance societal change

We have a Global I&D Council which comprises senior and rising leaders who are representative of our global workforce and organisational structure, and is chaired by CEO, Pascal Soriot. This group is accountable for advising on and enhancing organisational progress towards our global I&D ambitions, as well as working with local leaders to ensure an approach that is tailored to meet local needs.

I&D is central to our commitment to being a great place to work, for the benefit of our employees, our business and for society. Our ongoing commitment to I&D will enable us to future-proof our business by ensuring that we continue to attract and retain top talent from various backgrounds and with different experiences. Every component of our I&D mission is critical to our success.

Our I&D strategy supports the delivery of our purpose and strategy, by:

- Driving innovation through diversity of background, experience and thought, in line with our Values
- Attracting, developing, and retaining high quality talent from a richer, broader talent pool
- Enabling patient-centric insights through an employee population that reflects the patients and communities we serve
- Ensuring our medicines reach the full spectrum of patients affected by the diseases they treat, creating a healthier society
- Creating socio-economic impact by engaging small and diverse suppliers in our value chain and supporting their growth and development

Challenges

Privacy and ethics go together. Focusing on transparency, integrity and trust is at the heart of both our privacy strategy and our ethical approach: an ethical company is a company that values privacy and a company that values privacy embraces ethical practices. Across the world, we are seeing new and enhanced protection for personal data, moving the balance of power over personal data away from organisations back to individuals. This means that our ability to use people's personal data for new and innovative purposes is linked directly to their trust in us.

Key targets and progress

2025 target

Reach gender equality in management positions.

Status: On plan

2022 update

49.5% of senior middle management roles are occupied by women.¹

2025 target

Launch supplier diversity programmes in 10 new countries (outside of US).

Status: On plan

2022 update

Programmes launched in total of seven countries outside of US, with one more country, Sweden, launched in 2022.

38.5%
female and
23%
ethnic minority
representation
on our Board

Sustainability in action



Supporting supplier diversity

Our Supplier Diversity Programme maximises opportunities for small and diverse businesses to be part of our value chain and supports their growth. This helps support local economies through job opportunities, enabling diverse supplier development through mentorship schemes, and making a positive socio-economic impact by supporting the growth of local businesses. Our programme aims to be active in 10 countries outside the US by 2025, and is now active in seven including Brazil, South Africa, UK, Australia, New Zealand, and Poland, and most recently launched in Sweden in 2022.

To support our diverse suppliers to make progress on sustainability, in 2022 we launched two cohorts of the Diverse Supplier Sustainability Accelerator Programme, to help diverse suppliers to increase their sustainability capabilities, with 80 suppliers participating. Supplier

diversity partnerships include WEConnect International, Minority Supplier Development UK, Social Enterprise UK, National Minority Supplier Development Council, NGLCC, National HubZone Council, WBENC, and the Diversity Alliance for Science.

AstraZeneca has been recognised with the WBEC Greater DMV 2022 President's Award and 2022 Corporate Champion Award for having the highest spend with the WBEC Certified Women-Owned Businesses in Greater DMV, and the Diversity Honor Roll by WBEC East.

Inclusive partnerships

In 2022, AstraZeneca joined Disability:IN's Inclusion Works programme to promote the full inclusion of people with disabilities and to inspire accessible innovation for all.

In the US, to further underscore our commitment to LGBTQ+ inclusion in the workplace and our stance against

discriminatory policy, we joined the Human Rights Campaign's Business Coalition for Equality Act and signed the Business Statement on Anti-LGBTQ State Legislation.

In 2022, we continued to enhance relationships with external organisations and institutions, such as historically black colleges and universities (HBCU) and Hispanic-serving institutions (HSI) in the US, to facilitate entry pathways for underrepresented talent by funding scholarships and/or participating in recruitment and STEM mentoring programmes.

In the UK, we signed the Wellbeing of Women Menopause Workplace Pledge, raising awareness of menopause as a workplace issue and committing to supporting employees affected by it.

In 2022, in partnership with the Diversity Alliance for Science, we launched the 2022 Lead in Sustainability Accelerator programme for 40 small and diverse businesses.

We also became a founding partner to the first ever pan-European diversity initiative [European Expansion Programme \(ESDP\)](#) / [MSDUK](#) to enhance the landscape of supplier diversity in six European countries: Belgium, France, Germany, Ireland, Netherlands, and Sweden. We also became a founding partner of [Buy Social Europe](#), [Social Enterprise UK](#). This will contribute to identifying and engaging the leading social enterprise suppliers across the EU and Switzerland region in our value chain.

Our Employee Resource Groups are part of the fabric of our company and are fundamental to our progress.

AstraZeneca Employee Resource Groups (AZ ERGs) raise diversity awareness

AstraZeneca Employee Resource Groups (AZ ERGs) are part of the fabric of our company and are fundamental to our progress. They are voluntary, employee-led groups formed based on shared experiences that raise diversity awareness and promote business and societal impact.

AZ ERGs help to create a sense of community and belonging through connecting and supporting people who share the same dimensions of diversity. They also empower employees to speak their mind and share their voice and perspective, because they feel psychologically safe to do so.

We believe that when individuals have the support and backing of a community of collective and allied voices, they are more likely to contribute and fulfil their potential, which gives us our competitive advantage as an organisation.

We have a total of 19 AZ ERGs; some with a global presence and others with a specific country presence and focusing on locally relevant topics. Our AZ ERGs reflect various shared affinities, identities and experiences, such as:

- Cancer at work
- Disabilities
- Early talent
- Healthcare professionals and scientists
- LGBTQIA+
- Mental health
- Military support
- Neurodiversity
- Racial, cultural and ethnic diversity
- Women
- Working parents and caregivers

Recognition – included in the following I&D rankings:

- FTSE Women Leaders Review 2022 – #1 in the Pharmaceutical and Biotechnology sector
- Bloomberg Gender Equality Index 2023 – one of 484 companies selected
- Forbes, World's Best Employers 2022
- Financial Times, Diversity Leaders 2023
- Diversity Inc, 2022 Top 50 Companies for Diversity List (US)
- WEConnect International, 2022 Top Global Champions for Supplier Diversity & Inclusion



Workforce safety and health

Why it matters

To continue to deliver medicines to patients, we must foster an environment where people feel safe, energised, and inspired. The resources we put into supporting the physical and mental health and safety of our workforce are an investment in society at large, the communities where we operate, and the long-term health of economies. Contributing to a safe and healthy environment is the right thing to do and can also have positive business impacts.

Description

Provide a safe and healthy working environment, based on a culture of learning rather than blame. This includes the application of human and operational performance principles, including training for leaders and managers, supporting employee health through flexible ways of working, access to disease prevention, treatment and mental health services.

Approach

We foster an environment that supports physical and mental health to make people feel safe, energised, and inspired, which not only benefits our workforce and productivity, but is an investment in the communities in which we operate and the long-term health of economies.

Our standards apply globally and are referenced in our Code of Ethics. We have a Global Safety, Health, and Environment (SHE) Standard, supported by our OneSHE Framework and accompanying 'SHE: Everybody's Business' training, which establishes minimum standards and is applicable to all employees and temporary staff across AstraZeneca sites and all business functions.

In 2022, we created an additional training module aimed at line managers to further underpin the Global SHE Standard and expectations of line management. We monitor safety and health targets aimed at supporting our workforce and keeping AstraZeneca among the sector leaders in performance. We are committed to maintaining or exceeding compliance with all legal and regulatory requirements in the locations we operate in. We work in a transparent and ethical manner to develop good relationships with regulators and ensure we contribute to local communities.

We manage SHE risks, opportunities, and performance by using effective management systems utilising a 'Plan, Do, Check, Act' process to ensure continuous improvement. This requires engagement throughout the organisation, effective leadership, open communication, and a commitment

from every employee to themselves, our colleagues, our workplace, our community, and our environment.

Our AZ SHE System aligns SHE data management systems and SHE business processes across our company, in order to streamline our collection, storage, and reporting, providing a single source of SHE data across our enterprise. The AZ SHE System drives innovation in the management and reporting of SHE events and sustainability metrics, while helping to improve workforce safety and health.

This system has been rolled out to 81,645 users at 477 AstraZeneca locations, in 79 countries.

To date, the system has collected over 7,825 safety and health events (including near misses), 101,176 SHE observations, and 32,561 corrective or preventive action plans.

Challenges

New and changing data privacy, security and transfer regulations have caused delays in implementing processes to support health and wellbeing.

We continue to work with regulators, vendors, and our own legal organisation to be sure we maintain compliance.

Key targets and progress

2025 target

Workforce safety: 75% reduction in total injury rate from 2015 baseline.⁴

Status: On plan

2022 update

72% reduction in total injury rate.⁵

2025 target

Driver safety: 55% reduction in collisions per million kilometres driven from 2015 baseline.⁴

Status: On plan

2022 update

49% reduction in collisions.⁵

>47,000
observations⁶ reported
through AZ SHE
System

Sustainability in action



Human Performance Event Learning training – fixing the system not the people

As part of our commitment to integrating Human and Organisational Performance (HOP) thinking – a science-based approach to understanding how and why people make mistakes and what organisational improvements can be made – into our Global Operations organisation in 2022, we provided Human Performance Event Learning (HPEL) practitioner training to over 800 individuals, as well as HOP training for leaders and suppliers globally.

The HPEL approach has three main steps:

1. Developing an understanding of the event’s performance context – creating a safe environment for learning by recognising how mistakes happen, without blame – what failed and not who failed. Exploring the background and what error traps and local workplace factors contributed to the event.

2. Identifying the required improvements or ‘countermeasures’ – focusing on the importance of learning as part of an improvement strategy. Going through a process away from procedures and towards error-proofing or elimination of hazards.

3. Shared learning – identifying the impacts, errors, and the local and organisational factors discovered, capturing key learnings to be shared at site level and beyond.

We foster an environment that supports physical and mental health to make people feel safe, energised and inspired.

Preventing Serious Injury and Fatality (SIF) at work

We launched a Serious Injury and Fatality Prevention and Mitigation Programme in 2021, led by our Global SHE team and guided by a senior-level steering committee. Process and life safety subject matter experts evaluate high-risk activities with the potential to result in a serious injury or fatality and prioritise these against internal audit findings and past events. In 2022, we implemented the second year of our three-year plan to address 12 high-risk areas, focusing on work at height, safe operation, contractors and construction safety.

As part of the plan, working teams reviewed and uplifted existing standards and materials, followed by a gap assessment at site-level. Gap assessment results were then reviewed by site leadership teams and the steering committee. As a result, a new AstraZeneca Standard on Working at Height was launched towards year end, with additional guidance to support the standard. The scope of the initiative was also extended beyond manufacturing to include major R&D sites.

Healthy Mind app supporting mental health worldwide

In order to provide easily accessible support for employee mental health through digital innovation, our Safe Space employee resource group (ERG) worked with our Global IT, and SHE functions to develop a digital solution with Microsoft using Power Platform. This led to the Healthy Mind app, which has been upgraded in 2022 with an improved user experience, support for 24 languages and access to mindfulness content. Since launch, the app has been accessed 26,000 times by 16,000 global employees. It is an example of innovative solutions to employee wellbeing, supported by cross-functional and ERG collaboration.

Drive Success driver safety campaign to protect employees and communities

Since our return to the workplace in 2021 and early 2022, we have seen an increase in the number of vehicle collisions reported, prompting a review of our Drive Success driver safety programme. In 2022, a safe driving campaign was developed and endorsed by our Commercial SHE Executive Team, with leadership video content and a messaging cascade for employee engagement. The campaign was aimed at line managers with accountability for SHE. It was designed to initiate team discussions on safe driving habits and to understand any barriers to those habits. Topics included risks to safety such as excessive speed, distractions and fatigue. The campaign emphasised preventive measures that employees and line managers can take to improve safety in these areas. The campaign also included ideas for five-minute safety moments or check-ins, asking teams thought-provoking questions to maintain an emphasis on driver safety, with the goal of protecting our employees and the communities in which we work.

Footnotes

Footnotes

Sustainability overview

1. Watson OJ, et al Global impact of the first year of COVID-19 vaccination: a mathematical modelling study. Published online June 23, 2022. Available at: [https://www.thelancet.com/journals/laninf/article/PIIS1473-3099\(22\)00320-6/fulltext](https://www.thelancet.com/journals/laninf/article/PIIS1473-3099(22)00320-6/fulltext) Last accessed: January 2023. Data estimates based on model outcomes from separate analyses conducted by Airfinity and Imperial College London, United Kingdom. AstraZeneca Data on File. DoF REF- 156573, date of preparation 31 January 2023.
2. In 2022 we had a total of 9,500 employees go through an immersive and cohort-based AZ development intervention. For our two dedicated women leader development programmes (Women as Leaders, Empowerment – diversity by design) we had approximately 1,000 women graduate. Our programmes designed for various stages of leadership saw 8,500 participants, with a 50:50 M/F split represented.
3. Ensure 100% of AstraZeneca site discharges and ≥90% of supplier site discharges are in compliance with safe API discharge concentrations.
4. Data reported for 2022 is for calendar year 2021 and based on weight supplied. Scope includes primary, secondary, and tertiary packaging. Alexion brands excluded.

Access to healthcare

1. People 'reached' is defined per programme, depending on the operations of specific programmes. This figure includes current programmes: Healthy Heart Africa, Young Health Programme, and historic programmes: Healthy Lung Programme and Phakamisa.
2. As of the time of publishing the report, there was an 88% response rate from global markets. Cumulative reporting means the remainder will be captured in next year's reporting and that people reached may not be unique individuals.
3. This figure comes from current programme: Healthy Heart Africa, and historic programmes: Healthy Lung Programme, and Phakamisa.
4. Total healthcare facilities activated includes current programme: Healthy Heart Africa, and historic programme: Healthy Lung Programme.
5. According to EveryLife Foundation, 93% – 95% of more than 7,000 known rare diseases have no US Food and Drug Administration-approved therapies. <https://everylifefoundation.org/about-us/>
6. Orach C.G. Health equity: challenges in low incomes countries. Published online October 2009. Available at: <http://www.bioline.org.br/pdf?hs09046> [Last accessed: January 2023].
7. Methodology update in 2022 means total community investments refers to payments completed within the financial year.
8. Watson OJ, et al Global impact of the first year of COVID-19 vaccination: a mathematical modelling study. Published on line June 23, 2022. Available at: [https://www.thelancet.com/journals/laninf/article/PIIS1473-3099\(22\)00320-6/fulltext](https://www.thelancet.com/journals/laninf/article/PIIS1473-3099(22)00320-6/fulltext) Last accessed: January 2023. Data estimates based on model outcomes from separate analyses conducted by Airfinity and Imperial College London, United Kingdom. AstraZeneca Data on File. DoF REF- 156573, date of preparation 31 January 2023.

9. According to World Bank, lower middle-income economies are defined as those with a Gross National Income (GNI) per capita between \$1,086 and \$4,255. World Bank Country and Lending Groups Available at: <https://datahelpdesk.worldbank.org/knowledgebase/articles/906519-world-bank-country-and-lending-groups> [Last accessed: January 2023].
10. Includes financial donations, in-kind donations, product donations.
11. These patient assistance programmes use fully donated product without expectation of payment from the patient for any portion or to access the programme.
12. People 'trained' is defined per project, depending on the specific operations. Peer Educators through YHP refers to young people that are capacitated by the YHP to train their peers on Non-Communicable Disease (NCD) risk factors.

Environmental protection

1. Data reported for 2022 is for calendar year 2021 and based on weight supplied. Scope includes primary, secondary, and tertiary packaging. Alexion brands excluded.
2. In 2022, we invested \$26.6 million through our Natural Resource Efficiency Fund together with other central capital investments. As part of this, we invested \$21 million on energy efficiency and renewable energy (Solar PV).
3. Romanello M. et al. The report of the Lancet Countdown on health and climate change: health at the mercy of fossil fuels. Published online October 25, 2022, Available at: [https://www.thelancet.com/journals/lancet/article/PIIS0140-6736\(22\)01540-9/fulltext](https://www.thelancet.com/journals/lancet/article/PIIS0140-6736(22)01540-9/fulltext) [Last accessed: January 2023].
4. Convergence of two targets communicated in 2020 and 2021 for small molecule syntheses and biologics products.
5. Data collected one year in arrears. Scope is 54 APIs for which data is available to calculate safe API discharge limits and based on 2021 manufacture and formulation activities. One discharge assessment at a single timepoint (1/44 measurements) marginally exceeded the safe discharge target (failure in vacuum system and water use reduction causing high concentration in effluent, vacuum promptly repaired upon identification of fault, all other timepoints measurements were within safe discharge targets) One of 66 API discharges marginally exceeded the safe discharge target (RQ = 1.3 based on application of additional marine assessment factor of 10).
6. Target updated in 2022 to reflect increased ambition before 2025.
7. Almond R.E.A., Grooten M., Juffe Bignoli D. & Petersen T. (Eds). (2022) Living Planet Report 2022. WWF, Gland, Switzerland. Online: <https://livingplanet.panda.org/> [Accessed 2 February 2023]
8. Taskforce on Nature-related Financial Disclosures. Online: <https://tnfd.global/> [Accessed 2 February 2023]
9. The Science Based Targets Network. Online: <https://sciencebasedtargets.org/about-us/sbfn> [Accessed 2 February 2023].

Ethics and transparency

1. Senior middle management refers to staff director level and above.
2. 'Speak Up' question in the internal survey changed from: "I feel comfortable to speak up and express my opinion at work" in 2020 and to "I feel comfortable to speak my mind and express my opinion at work" in 2021 and 2022.
3. We define our 100% complete statistic by saying all active employees on the day of roll out (in this case 16/17th October) must complete the course. Active employees are those not impacted by variables such as parental leave, long-term sickness and garden leave.
4. Target excludes Alexion.
5. The inclusion criteria for injuries and occupational illnesses in the metrics reported here are aligned with the US Occupational Safety and Health Administration (OSHA) Record Keeping Rule. Workforce safety and health for AstraZeneca and Alexion is reported separately. The Alexion total reportable injury rate (per million hours worked) is 0.7. AstraZeneca represents 94% of total workforce, Alexion represents 6% of total workforce.
6. Observations include positive interactions or unsafe conditions. All observations include peer to peer coaching.