



Sustainability Report 2020

About this report

This report

This is our sixth annual sustainability report, and it describes our progress and challenges from 1 January 2020 to 31 December 2020, unless otherwise stated. The content of this report 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 position and guidance on key topics.

2020 Annual Report: includes how sustainability is integrated across our business model and into risk management.



Disease understanding

Connecting broader omic-technologies can identify the more complex and transient molecular changes that underpin the course of disease. AstraZeneca is turning this data into knowledge, to help identify novel drug targets.

Contents



Sustainability overview 2

Message from the CEO	3
What Sustainability means to AstraZeneca	4
Sustainability business integration	5
2020 performance highlights	6
About us	7
COVID-19 pandemic actions	8
Contribution to Sustainable Development Goals (SDGs)	9
Sustainability governance	11
Stakeholder engagement	13



Access to healthcare 15

Access to healthcare overview	16
The journey towards health system resilience	17
Disease prevention and treatment	18
Responsible research and development	21
Environment's impact on health	23
Investments in health systems	25
Affordability	27



Environmental protection 29

Environmental protection overview	30
Product environmental stewardship	32
Greenhouse gas (GHG) reduction	35
Pharmaceuticals in the environment	38
Water stewardship	40
Waste management	43



Ethics and transparency 46

Ethics and transparency overview	47
Ethical business culture	48
Ethical business culture – bioethics	50
Inclusion and diversity	52
Talent and workforce evolution	55
Workforce wellbeing and safety	57
Responsible supply chain	59
Human rights	62

Follow us >>



Notices

64

Share your ideas and feedback at sustainability@astrazeneca.com

Assurance

We obtained external review of our sustainability performance to validate that we use the same rigour and accuracy as we do with regulated reporting. Bureau Veritas has provided independent external assurance for progress on all sustainability targets and all sustainability key performance indicators shown in the Sustainability Data Summary. Details are described in the [sustainability letter of assurance](#). Assurance was also provided for select sustainability information in the [2020 Annual Report](#). Assurance is in accordance with the International Standard on Assurance Engagements 3000 (ISAE 3000), and ISAE 3410 Assurance Engagements on Greenhouse Gas Statements.



Message from the CEO

2020 was a year like no other, with COVID-19 presenting unprecedented challenges for us all.

I am proud of the fact that, in the face of the pandemic, AstraZeneca employees worked tirelessly to ensure the safety of patients and their continued access to care and medicines. We also worked with partners across the world to contribute to the process of scientific innovation to combat the virus and contributed more broadly to society, including with emergency relief. At the same time, the ground-breaking scientific advances we delivered in 2020 demonstrate what can be achieved in the most difficult times if we live our Values and are true to our Purpose.


In addition to the pandemic, racial equity and environmental crises taught us that our society is fragile. The world has to come together to overcome these challenges if we are to build a sustainable world for future generations.

At AstraZeneca, our focus on sustainability is fundamental to our strategy and, despite the challenges, our teams continued to make great progress in 2020 across our three sustainability pillars — increasing access to healthcare, protecting the environment, and demonstrating our commitment to ethics and transparency. All our efforts are underpinned by our commitment to the United Nations Sustainable Development Goals and the United Nations Global Compact's 10 principles on human rights.

Our Access to healthcare activities in 2020 included a focus on programmes to strengthen health system resilience at a time when the need for disease prevention and treatment has never been more important. And, with the bold commitments we have made through our Ambition Zero Carbon strategy, we are actively playing our part in tackling the climate emergency.

2021 provides an opportunity for us to build a more sustainable future as the world emerges from the pandemic. Every change — large or small — can make a difference.

— **Pascal Soriot**, AstraZeneca CEO



"I am proud of the fact that, in the face of the pandemic, AstraZeneca employees worked tirelessly to ensure the safety of patients and their continued access to care and medicines."

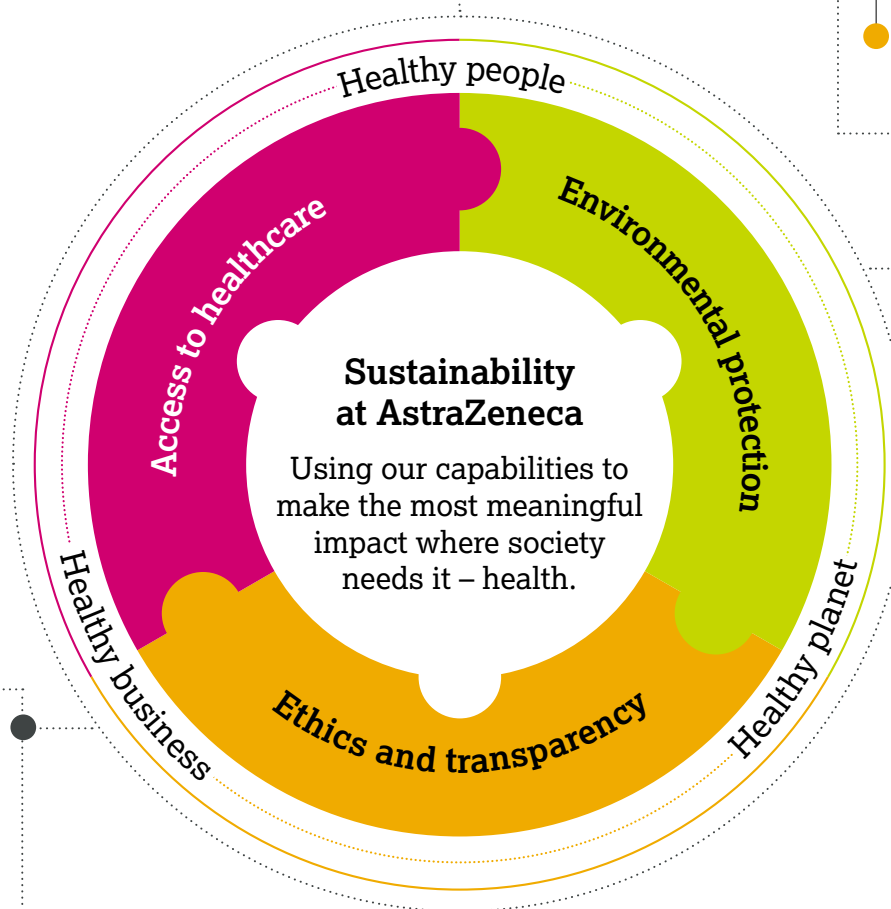
What Sustainability means to AstraZeneca

Sustainability at AstraZeneca is about using our capabilities to make the most meaningful impact where society needs it — health. We know the health of people, the planet and our business are interconnected, each impacting the others.

Our goal is to always be moving our organisation towards greater sustainability. Our efforts in sustainability go beyond meeting our annual and longer-term targets. We must continually evolve our mindset and our practices to meet changing times. This is both a responsibility and a business opportunity.

Our sustainability strategy

Our sustainability strategy is guided by a [materiality assessment](#). This robust process determines the topics that are most important to AstraZeneca and our stakeholders, giving us the opportunity to achieve the most positive impact. We have 16 material focus areas, which are grouped under three interconnected priorities — Access to healthcare, Environmental protection and Ethics and transparency



Our ambitions

- Work towards a future where all people have access to sustainable healthcare solutions for life-changing treatment and prevention
- Demonstrate global leadership to proactively manage our environmental impact across all our activities and products
- Create positive societal impact and promote ethical behaviour in all markets across our value chain

Our sustainability approach

- **Systems thinking** — recognising that our globalised world binds us together in a dynamic, complex network of relationships. We know the health of people (including our workforce, patients and society at large), the planet and our business are interconnected. The scale and severity of the issues we face today require us to assess all options simultaneously. We look for opportunities that offer synergies and address systemic issues
- **Long-termism** — acknowledging there are no quick fixes; anticipating and designing out unintended impacts; observing how impacts change over time; building resilience
- **Aiming to leave things better than we found them** — we differentiate between addressing our negative environmental impacts and creating the conditions for deep, lasting sustainability

Sustainability business integration

Sustainability is an imperative. It's the right thing to do — for people, the planet and our business. Sustainability is an engine for innovation.

Integrating sustainability into everything that we do future-proofs our business to be resilient in challenging times, helping ensure we can continue to deliver life-changing medicines to patients. With this in mind, we seek to integrate sustainability into every aspect of our enterprise. We have the following practices in place to embed a sustainability mindset across AstraZeneca.



Business operating model

Sustainability is a core element of our company strategy. Being a Great Place to Work is one of our three corporate strategic priorities. Our performance is assessed by the delivery of short- and long-term sustainability targets for our 16 [material focus areas](#). These targets are a part of the company's global internal scorecard, against which we measure our progress as a business, and every employee contributes to their achievement.



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



Workforce engagement

Our leaders and employees participate in events and initiatives throughout the year— from the annual Senior Leaders' Meeting to digital crowdsourcing — to raise awareness of our sustainability strategy and further embed a sustainability mindset across the business, generating new approaches and challenging ourselves to do better. In our latest employee survey, 87% of respondents stated they understand how to contribute to our sustainability priorities. See more in [Stakeholder engagement](#).



Investor relations

We incorporate sustainability-related disclosures into [public announcements](#) for analysts, institutional investors and rating agencies. We have a dedicated Environmental, Social and Governance (ESG) investor relations officer and, throughout 2020, our Investor Relations (IR) team has engaged in more than 70 external events with more than 300 stakeholders. See more in [Stakeholder engagement](#).



Risk management

We recognise the connection between enterprise risk management and sustainability management. In 2018, enterprise risk management informed the [sustainability materiality assessment](#) and we used the results to better align our risk and sustainability classifications. The Global Sustainability function participates in quarterly company risk reviews. In 2020, climate related material focus areas were explicitly incorporated in the risk management platform to enable risk managers to flag when potential risks are connected to environmental sustainability issues. See more in the Risk overview section of our [Annual Report](#).



Code of Ethics

Our [Code of Ethics](#) is based on our company [Values](#). It provides clear guidance and direction to employees in carrying out their daily work. Sustainability is featured as one of four high-level global policies in the Code of Ethics. Annual training on the Code is mandatory for all employees. See more in [Ethical business culture](#).



2020 performance highlights

Sustainability strategy

Use our capabilities to make the most meaningful impact where society needs it — health



9 members govern sustainability on our Sustainability Advisory Board — composed of four external experts and five Senior Executive Team (SET) members



1 of 3 Sustainability is a component of Great Place to Work, one of our three company strategic priorities



30+ performance metrics measured quarterly in the internal company scorecard

Access to healthcare

Work towards a future where all people have access to sustainable healthcare solutions for life-changing treatment and prevention



25m+ people reached through our access programmes¹ (cumulative)



132,000+ healthcare workers trained¹ (cumulative)



10m+ people reached through our Patient Assistance Programmes (cumulative)

Environmental protection

Demonstrate global leadership to proactively manage our environmental impact across all our activities and products



60% reduction in Scope 1 and 2 greenhouse gas emissions since 2015



20% reduction in our water use since 2015



2% reduction in our waste since 2015



1st life cycle assessment study completed for a clinical trial



100% of active pharmaceutical ingredient discharges (API) from AstraZeneca owned sites demonstrated as safe; 94% of discharges from direct suppliers demonstrated as safe²

Ethics and transparency

Create positive societal impact and promote ethical behaviour in all markets across our value chain



46.9% women in senior middle management roles and above



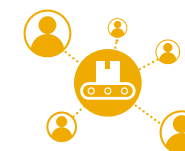
49.1 instances of non-compliance with the Code of Ethics per thousand employees in commercial business units



84% of employee survey respondents feel that AstraZeneca has a 'Speak Up' culture



89% of employee survey respondents feel that AstraZeneca is a Great Place to Work



2 countries launched new supplier diversity programmes

We recognise that several of these measures were impacted by the pandemic and may not reflect a typical trajectory.

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

About us

Our Purpose:

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

We are a global, science-led, patient-focused pharmaceutical company. We discover, develop and commercialise prescription medicines. We follow the science to transform how diseases are understood, interact and impact one another. Our medicines primarily treat diseases in three therapy areas:

Oncology

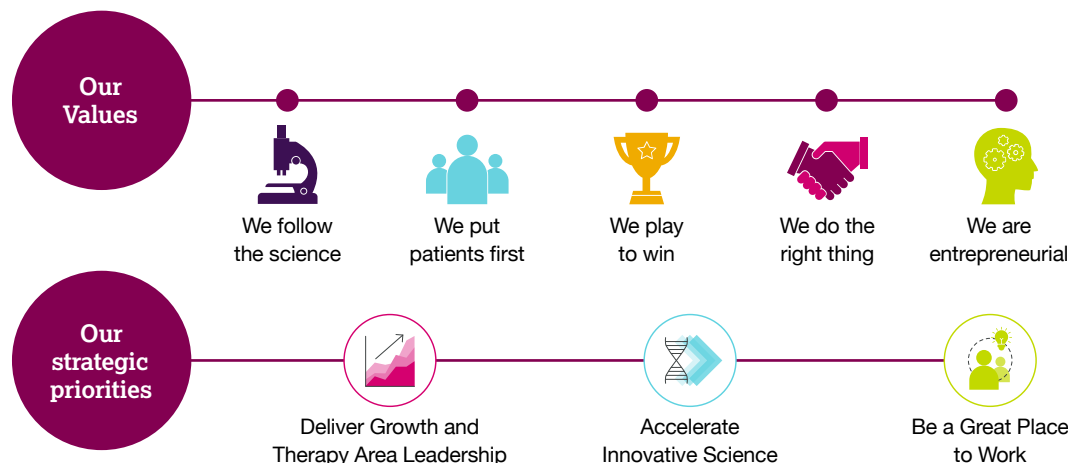
Our ambition is to provide cures for cancer in every form. We are following the science to understand cancer and all its complexities to discover, develop and deliver life-changing treatments and increase the potential for cure.

Cardiovascular, renal and metabolism (CVRM)

Our mission is to protect the lives of people from the consequences of CVRM diseases. We are committed to their seamless management, improving patient outcomes and decreasing the mortality rate.

Respiratory and immunology (R&I)

We aim to transform the treatment of R&I diseases, with the bold ambition to eliminate preventable attacks and achieve durable remission or even cure for millions of people with these potentially devastating conditions.



Strategic R&D centres:

Cambridge, UK (HQ); Gaithersburg, MD, US; Gothenburg, Sweden

Other R&D centres and offices:

Boston, MA, US; Macclesfield, UK; New York, NY, US; Osaka, Japan; Shanghai, China; South San Francisco, CA, US



Our recognition

World and Europe
Global constituent
Dow Jones Sustainability Index

100 Most Sustainable Companies
Corporate Knights

A List
Climate Change and Water Security
Supplier Engagement
Leader Board
CDP

4th percentile for ESG risk management in Pharmaceuticals
Sustainalytics

Index series constituent
FTSE4Good

AA ESG rating
MSCI

7th out of 20
Access to Medicines Index

COVID-19 pandemic actions

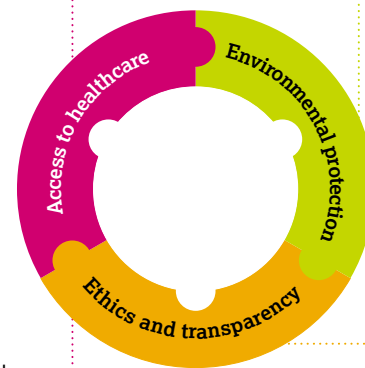
AstraZeneca's response to the COVID-19 pandemic was consistent with our Values of following the science, putting patients first and doing the right thing. Our priorities were driven by the needs of patients, caregivers and communities.

To respond effectively, we partnered with governments, international organisations, health professionals, industry and non-profit organisations. Our response also reflected our sustainability priorities.

Access to healthcare

Our objectives and actions:

- **Help ensure continued access to care and medicines**
 - Redesigned clinical trials to avoid disruption by increasing the use of initiatives like home-based treatments and remote monitoring
 - Pledged financial commitments to dozens of patient advocacy groups and professional societies across the globe to prioritise continuity of care during the pandemic
 - Lead donor of the COVID Impacts Cancer Initiative — launched by the American Society of Clinical Oncology — to establish a registry for its members to share data on how the coronavirus impacts care and patient outcomes
 - Launched our Partnership for Health System Sustainability and Resilience, with the World Economic Forum and the London School of Economics, to identify solutions to strengthen the resilience of healthcare systems
- **Protect critical operations to ensure the continued supply of our medicines to patients who need them**
 - Monitored more than 1,300 global logistics routes to ensure the efficient flow of medicines, enabling us to continue to deliver our medicines and respond to the growth in global demand for some medicines



Environmental protection

Our objectives and actions:

- **Remain steadfast in our commitment to environmental protection**
 - Conducted environmental risk assessments in line with local regulatory requirements during research and development of potential COVID-19 treatments
 - Co-authored a 10-point action plan to create a circular bioeconomy, recognising deforestation, biodiversity loss and landscape fragmentation as key processes enabling transmission of zoonotic infectious diseases
 - Recovered heat from mask incineration

Ethics and transparency

Our objectives and actions:

- **Ensure the safety and wellbeing of our employees**
 - Launched a secure digital platform for more than 77,000 employees and contract workers in eight days so that most employees, including some laboratory staff, could work from home
 - In locations where employees remained in or were able to return to their place of work, additional health and safety measures were put in place, including temperature screenings, physical distancing and mandatory mask-wearing
 - Administered more than 50,000 PCR and antibody assessments for employees at key sites
 - Provided support and guidance to employees with suspected or confirmed COVID-19
 - Launched toolkits for employees and leaders including advice on working effectively from home while maintaining physical and mental wellbeing. We shared these toolkits externally for other organisations to use and repurpose
 - Assisted employees who worked on site to find available places at nurseries and with registered childminders
- **Contribute more broadly to society**
 - Updated our Global Volunteering Policy, extending the amount of leave for medically trained employees, and encouraged volunteering more generally to relieve exhausted health systems and support communities
 - Provided more than \$15 million in COVID-19 donations to patient advocacy groups, health charities and relief agencies, supporting 340 non-profit organisations in 78 countries

Contribution to the SDGs

What are the SDGs?



The United Nations Sustainable Development Goals (SDGs) are a universal blueprint for prosperity for people and the planet, now and into the future. They represent the collective actions the world can take to address the most pressing issues we face as a global community — inequality, injustice, poverty and climate change.

The 17 SDGs are interconnected. Contribution to one SDG will affect outcomes in others, therefore sustainability initiatives must balance social, economic and environmental aspects.

These Global Goals recognise the synergies between improving economic prosperity, health, education and the environment, to set society on a transformative path towards a more resilient and sustainable future.



Our prioritisation process

While we recognise that our business impacts all 17 SDGs to varying degrees, we evaluate our primary contribution¹ by:

- Connecting our long-term targets and annual progress to SDG targets
- Analysing the 169 SDG underlying targets and connecting them to our [material focus areas](#) and future strategic direction

The six goals and 12 targets that resulted from this prioritisation represent where AstraZeneca has the greatest capacity for impact and action.



See [Sustainability Data Summary](#) for more detailed information.

Why they matter

SDG 3 Good health and wellbeing

COVID-19 has shown the vulnerability of many global systems in a crisis setting, resulting in the loss of human life and widespread economic downturn. Both communicable pandemics² and non-communicable diseases (NCDs)³ are projected to increase, and health systems will need to become more resilient to continue to provide services to those in need. Furthermore, NCDs kill more than 41 million people each year, which is equivalent to 71% of all deaths globally.⁴

SDG 5 Gender equality

Supporting women is essential to promote health and enhance business performance. Women's equality in the workplace could add as much as \$28 trillion to global annual gross domestic product by 2025.⁵ If business as usual is maintained, it would take 202 years to achieve gender equality in the workplace.⁶

SDG 8 Decent work and economic growth

Inequality is rising globally and there are not enough jobs to keep up with a growing labour force. Although COVID-19 offers opportunities to improve work-life balance through reduced business travel and remote working, it has also accelerated and exacerbated existing work inequalities, especially for the most vulnerable. Certain groups — such as workers with disabilities, women and migrants, among others — face significant obstacles in accessing decent work and may be particularly at risk of abuses.⁷

SDG 12 Responsible consumption and production

Economic and social progress over the last century has been accompanied by environmental degradation that is endangering the systems upon which our future development and survival depend. Production and consumption patterns need to change so as not to lead to further degradation of the planet.⁸

SDG 13 Climate action

Climate change affects every aspect of human existence, from access to water and food, to severe weather events and pollution, resulting in health issues. Even with widespread restrictions upon travel and huge shifts in energy demand around the world, emissions reductions in 2020 were not enough to keep warming to 1.5°C in the future.⁹

SDG 17 Partnership for the goals

No one industry or actor alone is sufficient to address the converging health and climate crises. A multitude of actions, initiatives and investments are necessary. The more coordinated, and mutually reinforcing these efforts are, the higher the likelihood of setting society on a transformative path towards a more resilient future.

Our primary SDG contributions

SUSTAINABLE DEVELOPMENT GOALS

SDG 3 | Good health and wellbeing

3.4 Reduce premature mortality from NCDs

Over 25 million people reached through Access to healthcare programmes,¹⁰ since 2010. 2025 target is 50 million.

3.6 Halve the number of global deaths and injuries from road traffic accidents

46% reduction in the vehicle collision rate of our workforce since 2015. 2025 target is 55%.

3.8 Achieve universal health coverage

Over 3,340 health facilities activated or partnered since 2015.

3.c Increase the health workforce in developing countries

Over 132,000 healthcare workers trained¹⁰ since 2010. 2025 target is 170,000.

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

46.9% of senior middle management roles and above held by women, up from 45.4% in 2019. 2025 target is 50%.

50.5% of all AstraZeneca employees are women, up from 50% in 2019.

35.7% women representation on Board of Directors, up from 33.3% in 2019.

SDG 17 | Partnership for the goals¹¹

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

Patron sponsor for the United Nations' Goal 3 action platform, Healthy People Healthy Planet.

Committed to the United Nations Women's Empowerment Principles.

Signatories of the United Nations Global Compact (UNGC) since 2010 and joined as Participants in 2018.

UNGC's Our Only Future member.

SDG 8 | Decent work and economic growth

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

64% reduction in reportable injury rate from 2015 baseline. 2025 target is 75%.

SDG 13 | Climate action

13.1 Strengthen resilience and adaptive capacity to climate-related hazards and natural disasters in all countries

60% reduction in Scope 1 and 2 emissions from 2015 baseline. 2025 target is 100%.

3% increase in Scope 3 emissions from 2015 baseline. 2030 target is to be carbon negative.

SDG 12 | Responsible consumption and production

12.2 Achieve the sustainable management and efficient use of natural resources

20% reduction in water use since 2015. 2025 target is to maintain absolute water use at 2015 baseline levels.

67% of active pharmaceutical ingredient (API) syntheses met resource efficiency targets since 2015, up from 50% in 2019. 2025 target is 90%.

12.4 Achieve the environmentally sound management of chemicals and all wastes, and reduce their release to air, water and soil

100% of API discharges from AstraZeneca sites assessed as safe and 94% from suppliers.¹²

12.5 Reduce waste generation through prevention, reduction, recycling and reuse

2% reduction in our waste since 2015. 2025 target is 10% below 2015 baseline.

40% of total waste is recycled, down from 44% in 2019.

12.6 Encourage companies to adopt sustainable practices and to integrate sustainability information into their reporting cycle

61.3% of critical manufacturing suppliers disclosed their energy, waste and water footprint, up from 60.7% in 2019.

Sustainability governance

Leadership message: an interview with Katarina Ageborg, EVP, Sustainability and Chief Compliance Officer, President AstraZeneca AB, Sweden.

Daria Buhaichuk, Sustainability Data Analysis and Visualisation, Warsaw, Poland, speaks with Katarina Ageborg about sustainability in 2020.



Daria Buhaichuk

"Our employees have amazing passion and enthusiasm for our sustainability work and make sure that we step up to make a valuable contribution to society."



Katarina Ageborg

DB: How have the events of 2020 impacted AstraZeneca's sustainability agenda?

KA: The spotlight on global crises like the COVID-19 pandemic, mass-protests against racial inequality and ongoing concerns about the accelerating rate of climate change have only increased our focus on sustainability over the past year. These issues are interconnected, with health inequities meaning the impacts of the pandemic and climate change will be felt hardest by those most in need. We must continue to work together across sectors and with governments to support a sustainable recovery and address the connection between the health of the planet and the health of people.

DB: What sustainability progress from AstraZeneca were you most excited about?

KA: Our Ambition Zero Carbon strategy to make AstraZeneca's global operations responsible for zero carbon emissions by 2025, without relying on offset schemes, and to be carbon negative across our entire value chain by 2030, puts us amongst the climate action leaders across all industries — this makes me very proud to be part of this company. There is of course a lot of work to do to achieve our bold commitments; we must collaborate and partner with governments, non-government organisations (NGOs) and other public and private sector organisations, as well as our industry peers, to drive the investment, policy and infrastructure changes to make it happen. We hope that by working in partnership, as we have seen on vaccine development, and driving industry action, we can move towards a more sustainable approach for the healthcare sector overall.

DB: How are teams in AstraZeneca responding to this challenge?

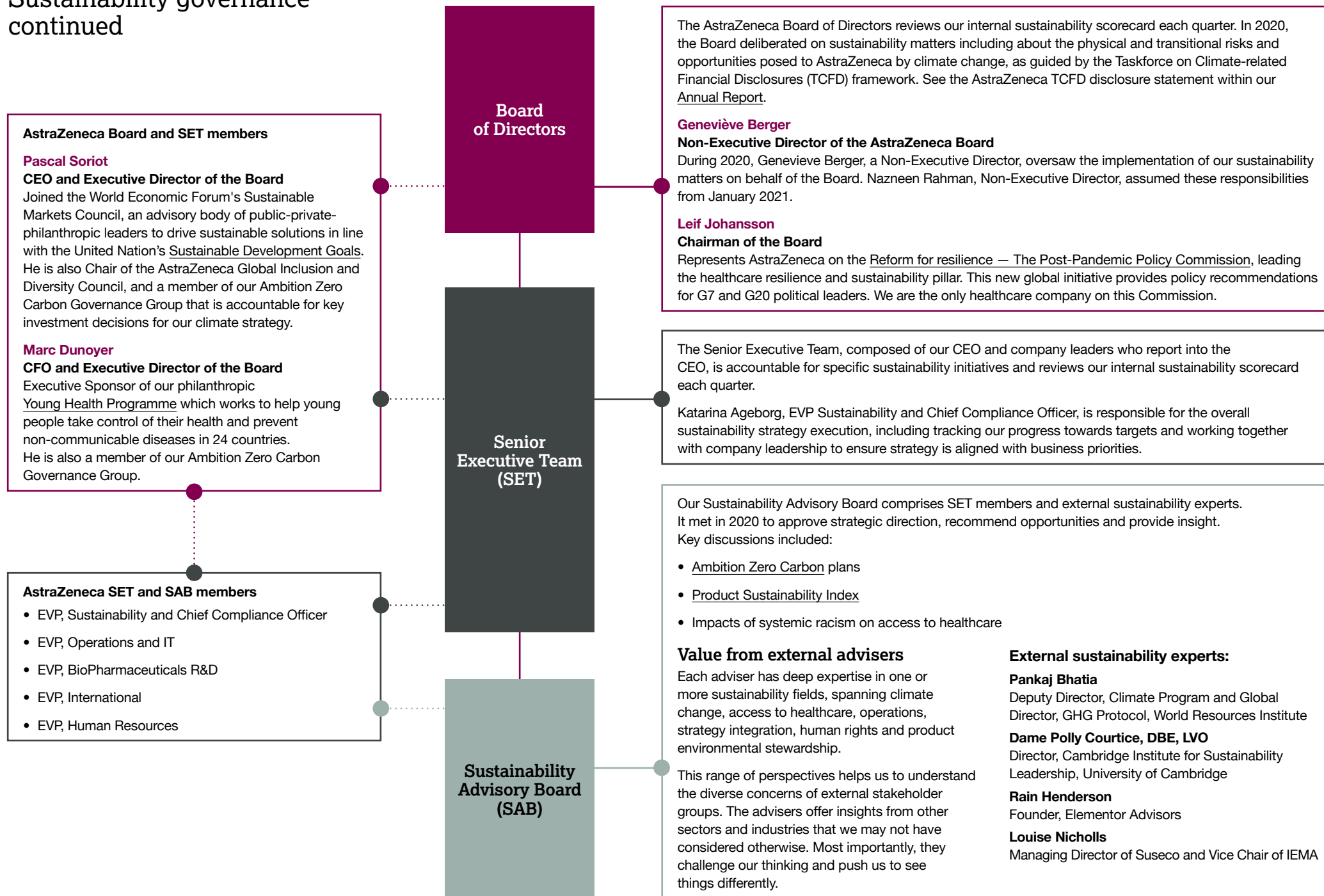
KA: Our employees have amazing passion and enthusiasm for our sustainability work and make sure that we step up to make a valuable contribution to society. Colleagues across the company used crowdsourcing to innovate around how we will achieve our climate targets. By the end of 2020, we were sourcing almost 100% renewable electricity across our sites worldwide. Our teams are working hard to determine the steps we need to take over this decade of delivery to get us to carbon negative across our value chain by 2030; they understand that there is a vital connection between the health of the planet and people's health, as well as the future success of our company.

DB: What have been the positives you have taken away from a tough 2020?

KA: There have been many positive takeaways from 2020, including playing our part to eliminate discrimination from the delivery of healthcare, looking to ensure our workforce is representative of the communities in which we operate, taking action to increase minority representation across our talent pipeline and rolling out anti-discrimination training. Our first-ever Power of Diversity Week was a global, virtual, tough conversation on what more we can do and how to do it. We also celebrated diversity and reminded ourselves of the value of an inclusive culture. These steps underline our commitment to driving societal change within and beyond AstraZeneca.

Another highlight is the rapid acceleration of digital and virtual working, which has enabled us to effectively continue serving patients and society when away from AstraZeneca sites, which has also reduced our business air travel by 86%. Together with extra wellbeing and mental health support for employees, I am extremely proud of how we have pulled together, lived our Values, and made our contribution to society during this time.

Sustainability governance continued



Stakeholder engagement

We value the diverse perspectives of stakeholders inside and outside our business. They help us shape and implement our sustainability strategy.

We recognise the importance of not only those environmental, social and governance (ESG) issues that impact our business, but also how our business impacts ESG matters. We gather broad stakeholder input to help us refine our approach. It is through open and transparent dialogue with our stakeholders that we uncover solutions to advance the health of people, the planet and our business.

We use a wide range of communication channels with our stakeholders, including digital engagements, face-to-face dialogue and group settings. Our [Code of Ethics](#) guides our approach. You can read more about how stakeholders can raise concerns in [Ethical business culture](#).

Engaging to shape our priorities — Materiality assessment

AstraZeneca's sustainability strategy is guided by a materiality assessment. This assessment identifies the ESG issues that matter most to AstraZeneca and our stakeholders, and that represent where we have greatest capacity for impact and action. We continually assess our strategy by examining emerging topics, significant trends and engaging internal and external stakeholders.

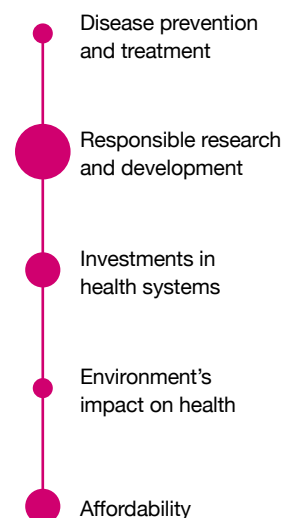
Our most recent sustainability materiality assessment was conducted in 2018. In collaboration with an independent consultancy, this assessment identified 16 material focus areas that maximise our opportunity for impact. This narrowed our priorities by about half. Our process was rigorous and comprehensive, given its geographic breadth, depth of input from stakeholders and alignment with enterprise risks.

We actively seek stakeholders' input to help us refine our approach. It is through open and transparent dialogue with our stakeholders that we uncover solutions to advance the health of people, the planet and our business.

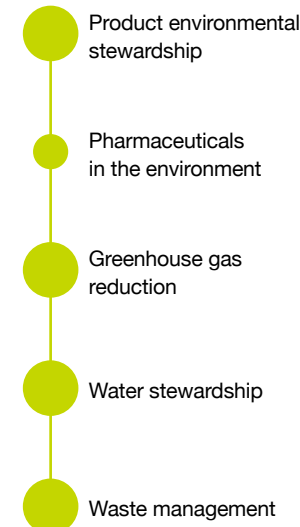


Materiality assessment results

Access to healthcare



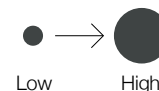
Environmental protection



Ethics and transparency



AstraZeneca's ability to influence



Stakeholder engagement continued

Featured engagements



Patients

We are continually evolving our ways of working to address the current and future needs of patients. We engage with patients in many ways: through patient advocacy groups, advisory boards and patient panels on specific therapy areas; market research; and through technology to connect with patient communities so they don't need to travel. In 2020, we launched our internal global patient centricity scorecard to keep us accountable for moving towards a more holistic, patient-centric business model. We set goals for 2025 across three priorities: delivering fully-integrated health ecosystem models; fostering patient-immersed culture and capabilities; and establishing health innovation hubs.



Healthcare professionals (HCPs)

HCPs are essential partners, providing insights that help us improve how we develop and deliver our medicines for maximum patient benefit. We engage HCPs through advisory boards, clinical trials and educational events including independent events and congresses. In 2020, we provided and supported early platforms for physicians to share their experience of treating patients with COVID-19. We also responded to more than 118,000 HCP enquiries and processed over 21,000 adverse event reports from HCPs.



Communities

We aim to make a positive impact on the communities in which we operate, as well as those which our medicines reach. In 2020, we provided more than \$76 million in community investment sponsorships, partnerships, charitable and product donations worldwide. We also donated more than \$1.6 billion of medicines in connection with Patient Assistance Programmes (PAP), the largest of which is our AZ&Me programme in the US.



Suppliers

We work with suppliers that support us to deliver our sustainability agenda. We engage directly through virtual and in-person meetings to build suppliers' sustainability awareness and capabilities. All of our critical manufacturing partners participate in the Sustainability Partner Guide and Framework, which includes sustainability assessments such as EcoVadis and EcoDesk. To maximise our impact, we participate in cross-industry forums such as the Pharmaceutical Supply Chain Initiative (PSCI). In 2020, we continued work with suppliers to improve the measurement of our value chain's greenhouse gas (GHG) emissions footprint. This supports our Ambition Zero Carbon targets. See more in Responsible supply chain.



Workforce

In our employee survey, 87% of respondents stated they understand how to contribute to AstraZeneca's sustainability priorities.

We hold local and global events to engage our workforce in collectively achieving our sustainability goals. Dialogue and collaboration is facilitated through our internal social media platform, which was used in 2020 for a series of events. The COVID-19: Now and Next crowdsourcing campaign focused on ideas around what we had learned from the pandemic and how to accelerate the delivery of our company strategy and increase our resilience to future shocks. The Ambition Zero Carbon: Decade to Deliver campaign generated ideas from employees to help us reach our GHG emissions 2030 target to be carbon negative in our value chain. Our first-ever global Power of Diversity Week included activities to raise awareness around the role every employee plays in progressing our inclusion and diversity priorities.



Analysts, institutional investors and rating agencies

We actively engage with financial stakeholders on sustainability-related topics via one-to-one meetings, conferences, management roadshows and other events, tracking engagement topics via our customer relationship management system. We share periodic sustainability-related updates with analysts, institutional investors, rating agencies — including credit and sustainability — through direct outreach and in a dedicated section within our full-year and quarterly results announcements and presentations. In 2020, we hosted AstraZeneca's first-ever ESG event: Meet AZN management: Leading in sustainability, led by Non-Executive Chairman of the Board, Leif Johansson. More than 240 unique participants attended the event and rated it 4 out of 5, for both the overall quality of the event and the ability of AstraZeneca to communicate its sustainability strategy. AstraZeneca was voted second for 'Best overall ESG' in the 2020 Institutional Investor survey, highlighting our continued progress in integrating sustainability into our business.



Government bodies and regulators

We hold regular meetings, roundtables and events to increase understanding about how governments can improve patient access to new medicines. In 2020, most of our work focused on collaborating with governments to find solutions to end the COVID-19 pandemic. We also engaged in discussions on evolving the current reimbursement system for medicines in the US.

Access to healthcare

Health is key for people, planet and business to thrive

Our ambition:

Work towards a future where all people have access to sustainable healthcare solutions for life-changing treatment and prevention



Our material focus areas



Disease prevention and treatment



Responsible research and development



Environment's impact on health



Investments in health systems



Affordability



2020 performance

25m+
people reached through our access programmes¹ (cumulative)

132,000+
healthcare workers trained¹ (cumulative)

10m+
people reached through our Patient Assistance Programmes (cumulative)

Connection to health:

Innovative 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 | Partnership for the goals

Access to healthcare overview

Access to healthcare at AstraZeneca goes beyond our medicines. We provide healthcare solutions along a continuum of care — from prevention, awareness, diagnosis and treatment, to post-treatment and wellness. We work across our main therapy areas to address unmet medical needs and health disparities.

The big picture

We recognise health as a human right. Healthcare is our core business; our mission is to push the boundaries of science to deliver life-changing medicines. The COVID-19 pandemic has demonstrated that health is foundational to a well-functioning society and economy. The pandemic has also tested the resilience of healthcare systems. AstraZeneca is committed to increase resilience to future shocks, so that people, the planet and our business can thrive well into the future.

Access to healthcare approach

We are working towards a future where all people have access to sustainable healthcare solutions for life-changing treatment and prevention.

How do we do this?

- **Innovating** — to deliver life-changing medicine
- **Partnering** — to improve access and affordability
- **Transforming** — for the future of healthcare

2020 updates

Innovating: We seek to future-proof global health systems to ensure that our medicines get to people who need them, even when challenges exist within those healthcare systems. We launched the Partnership for Health System Sustainability and Resilience (PHSSR) with the London School of Economics (LSE) and the World Economic Forum (WEF).

Partnering: We are patient centric and recognise that patients are people first. We are evolving our ways of working to address the current and future needs of patients. We work with partners to help create integrated healthcare ecosystems that bring benefits and support for the whole of the patient experience. We also co-chair the Private Sector Roundtable (PSRT) on Global Health Security, which mobilises industry to help countries prevent, detect and respond to health security-related threats. We know we can achieve better health outcomes for all in partnership with other organisations.

Transforming: We commit to health equity — to ensuring that everyone has an equal opportunity to be as healthy as possible. We are working to address health disparities and eliminate discrimination from the delivery of healthcare. This includes ensuring equity in our workplace, access to our medicines, in our clinical trials and beyond. Our internal initiatives place a strong emphasis on the role of health in workforce wellbeing and safety, our supply chain and environmental stewardship.

Governance

The scope of our Access to healthcare material focus areas applies across our business operations, so we work to collaborate across functions to deliver our strategy and outcomes. We support our global workforce to make their unique contributions to our Access to healthcare goals. An Access to healthcare working group convenes regularly. Our unified quarterly scorecard tracks Access to healthcare metrics and communicates our performance to all employees.

We recognise that several of our annual Access to healthcare measures were impacted by the pandemic and may not reflect a typical trajectory.

Material focus areas

Our strategy addresses five focus areas, as identified by our materiality assessment:



[Disease prevention and treatment](#)



[Responsible research and development](#)



[Environment's impact on health](#)



[Investments in health systems](#)



[Affordability](#)



Key accomplishments

- **Disease prevention and treatment:** Launched the Take CaRe of Me programme to promote early awareness of type 2 diabetes complications
- **Responsible research and development:** Committed to diversity in clinical trials
- **Environment's impact on health:** Initiated air pollution research in Uganda in partnership with the Cambridge Institute for Sustainability Leadership
- **Investments in health systems:** Launched partnership for Health System Sustainability and Resilience with LSE and WEF
- **Affordability:** Entered into over 100 value-based agreements
- Overall: Ranked 7th out of 20 companies in the Access to Medicines Index (AMI)



AstraZeneca colleague presents at Healthy Heart Africa expansion into Uganda.

The journey towards health system resilience

Health system resilience – the ability to: adapt to ever-changing societal and economic circumstances; cope with shocks and continue to provide services in the face of a crisis; and consistently deliver improved health outcomes.

The need:
Build health systems to be stronger and more resilient

Even before COVID-19, many health systems had significant limitations in reaching those with unmet medical needs. The pandemic has revealed and exacerbated such pre-existing weaknesses in health systems, and has demonstrated the urgent need to build more resilient health systems worldwide.

Our role:

To help improve:

- Health systems
- Health services
- Access and outcomes for patients

Our approach:



Disease prevention and treatment



Responsible research and development



Environment's impact on health

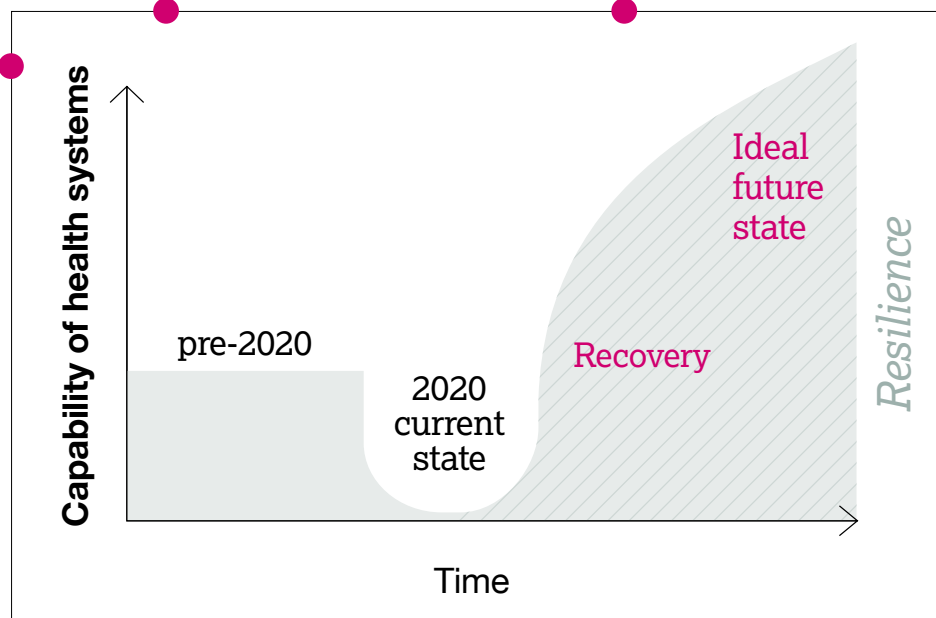


Investments in health systems



Affordability

Innovating, Partnering, Transforming



Improve preparedness for future shocks and enhance international coordination on key processes such as scenario planning, response protocols and reserve capacities



Optimise the location and focus of care on patients using digital technologies



Address the unsustainable social, economic and ecological costs of disease through more aggressive prevention



Improve the effectiveness of care for chronic diseases through improved quality of care standards, which need to be defined, implemented and monitored

Disease prevention and treatment

Our work contributes to these Sustainable Development Goals:

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



Why it matters

We are committed to health equity — to ensuring that everyone has an equal opportunity to be as healthy as possible by removing barriers to access and eliminating discrimination from the delivery of healthcare.

We recognise that non-communicable diseases (NCDs), such as cancer, diabetes, heart disease and respiratory conditions:

- Should be addressed from an intersectional lens, as they disproportionately impact marginalised groups: communities of colour, low- and middle-income populations¹ and women,² among others
- Are responsible for 71% of deaths globally³ and are the number one cause of death and disability, placing a significant burden on health systems⁴
- Are estimated to cost the global economy \$47 trillion by 2030 in lost productivity⁵

We have the responsibility and opportunity to leverage and scale our scientific expertise to develop healthcare solutions that address existing health inequities. Additionally, we remain responsive to global health imperatives, such as the COVID-19 pandemic. In 2020, we invested resources into prevention activities from equipment donations, to access programme resource reallocation, to vaccine and treatment development.

Description

Company activities aimed at preventing the onset and progression of diseases (including NCDs).

Approach

With healthcare as our core business, we seek to prevent disease and support people on their path to better health. We do this through health promotion, advocacy and research. For those who have been diagnosed with a condition, we strive to ensure access to effective treatment.

Our work focuses on:



Concentrating our portfolio on our three main therapy areas: oncology; cardiovascular, renal and metabolic diseases; and respiratory diseases



Being patient centric — our longstanding commitment to patients has led us to reimagine our patient-focused ways of working. We embed it across every aspect of our company to deliver the healthcare experience and outcomes people care about most so they can enjoy fulfilling lives



Breaking down cultural barriers to improve treatment adherence



Collaborating with experts at leading organisations to better understand diseases and accelerate drug development

Disease prevention and treatment is closely related to other areas of our sustainability strategy.

Investments in health systems and Workforce wellbeing and safety both feature prevention initiatives.

In 2020, our YHP started a new partnership with UNICEF to shape 12 policies and laws and train 1,000 youth advocates.

Key target and progress

2025 target
Maintain the Young Health Programme (YHP) in current active markets and expand into two new markets.

2020 update
YHP added six new markets, reaching a total of 24 markets. We launched new programmes in two countries and accelerator programmes in six countries.

Status: Achieved



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



Young Health Programme (YHP) in Kenya.

Disease prevention and treatment continued

Sustainability in action

Health Innovation Hubs — Increasing access to healthcare

As technology becomes integrated into the delivery of healthcare, medicines can no longer be viewed in isolation from other aspects of a patient's care. We are co-creating solutions with and for patients, and working with partners to establish integrated healthcare ecosystems that benefit the whole patient experience — from prevention and awareness, diagnosis and treatment to post-treatment and wellness.

Our Health Innovation Hubs are a network of physical locations and virtual partnerships to solve challenges, and scale and showcase healthcare solutions. We have 10 major iHubs and more than 20 local ecosystem solutions that form an interconnected global network to deliver integrated care and holistic disease management across all our therapy areas. Our Hubs put us at the centre of interaction between patients, medicine, technology, healthcare professionals and policy makers to reimagine how we can improve patient outcomes. We do this by:

- Establishing public-private partnerships based on a shared innovation agenda
- Co-creating with the entire patient network (caregivers, family, friends, co-workers, healthcare professionals and others) to help inform start-up companies and technology partners
- Bringing diverse patient perspectives to drive innovation within AstraZeneca as we work to improve the entire patient experience with 'whole disease' solutions

At AstraZeneca we strive to meet the diverse needs of patients around the world. Our Health Innovation Hub models exist across Europe and [emerging markets](#) (Asia, Latin America and Middle East and Africa areas).

Learn more about our commitment to patients and Health Innovation Hubs on our [website](#).



A hackathon event at our Hub in Sao Paulo, Brazil.

Take CaRe of Me programme

Many non-communicable diseases (NCDs) are interrelated; developing one NCD can increase the risk of developing other NCDs. For example, patients with type 2 diabetes (T2D) have a greater risk of developing cardiovascular disease and chronic kidney disease, a risk that further increases if the disease is not diagnosed and treated early.⁶ Studies estimate that up to 36% of T2D patients will develop chronic kidney disease and 24% will develop heart failure.⁷ Such interconnectivity is well established, yet awareness in developing nations remains limited, providing a barrier to effective, potentially life-saving treatment. This situation highlights the importance of addressing T2D holistically, as opposed to addressing health issues separately.

In 2020, we recognised World Diabetes Day by launching the Take CaRe of Me programme (C for cardiovascular, R for renal and M for metabolic) — a holistic patient care and evidence generation initiative that promotes the early awareness of T2D complications. The main goal is to improve patient outcomes by driving early recognition, diagnosis, referral and management of long-term risks, having a direct impact in patient outcomes through:

- Integrating advanced diagnostic technologies into patient pathways to support primary care physicians to more effectively profile and identify patients who are at risk of associated cardio-renal complications
- Utilising artificial intelligence analytics and advanced point-of-care diagnostic devices to generate data that highlights the increased susceptibility of patients, enabling primary care physicians in the early identification, prevention, and potential treatment of these comorbidities
- Raising patients' awareness of early complications of T2D

We have partnered with [Tricog Health](#) to deliver our goals. The programme is active in six countries — Egypt, Mexico, the Philippines, India, Malaysia and Argentina. Take CaRe of Me currently has the potential to impact the lives of around 155 million patients with T2D.



155 million patients

with type 2 diabetes will potentially be impacted by Take CaRe of Me.

Disease prevention and treatment continued

Sustainability in action

Partnering with World Heart Federation for cardiovascular care

AstraZeneca and the World Heart Federation (WHF) launched a partnership to drive global action to prevent, control, and reduce the burden of cardiovascular disease and associated complications. This partnership represents an important step in realising our ambition for our medicines to protect the lives of 50 million people who suffer from cardiovascular, renal and metabolic diseases. WHF is the world's leading voice for cardiovascular health on global policy, advocacy and disease awareness initiatives, representing the interests of heart foundations, scientific societies, civil society and patient organisations from over 100 countries.

This partnership focuses on two main objectives:

- Progress evidence-based policy solutions, with a strong focus on heart failure
- Increase the level of awareness on the burden of cardiovascular diseases worldwide

In 2020, AstraZeneca worked with the WHF to:

- Launch Spotlight on Heart Failure, a global campaign to raise awareness of the signs and symptoms of HF and encourage healthcare professionals to initiate discussions with at-risk patient groups
- Inspire policy change through the Heart Failure Gap Report a global survey evaluating attitudes about heart failure among the general public and policymakers
- Invest in the WHF Salim Yusuf Emerging Leaders Programme, an international training programme on cardiovascular health policy research, health systems and implementation science

This partnership represents an important step in realising our ambition for our medicines to protect the lives of **50 million people** who suffer from cardiovascular, renal and metabolic diseases.



Challenges

There were challenges in 2020 for patients accessing treatment for NCDs due to the pandemic, including pressures on healthcare systems, mobility limitations and prioritisation. This has highlighted the need for greater health system resilience. There are reputational risks and opportunities based upon the quality of our response to public health emergencies such as the COVID-19 pandemic.

★ Highlight

ACT on Heart Failure (HF)

The Accelerate Change Together (ACT) initiative aims to extend and improve the lives of HF patients. The programme's long-term targets include: cutting hospitalisations for HF by half and improving five year survival rates by 20% by 2024. We have over 40 local ACT on HF country teams in Latin America, Europe, Asia, Africa and North America.



Responsible research and development

Why it matters

We must continually innovate and take a long-term perspective to address current and future public health needs. AstraZeneca has a role to play in contributing to equity in our society through access to healthcare, clinical trials, healthcare delivery and more.

Non-communicable diseases (NCDs) are the greatest cause of death worldwide.¹ We know that even as we strive to use the most effective means to reach as many people as possible, we have a long way to go. Responsible R&D makes business sense because it drives us to innovate, establish new and expand existing partnerships, venture into new markets and develop new medicines in a way that advances health equity.

In 2020 we made a commitment that our clinical trials represent the diversity of the communities with the relevant disease.

Description

Company stewardship in the development of a responsible product portfolio strategy to drive global health outcomes, e.g. addressing unmet medical needs, investing in neglected diseases, and embedding environmental predictors of disease state, especially to improve the access and efficacy of medicines for vulnerable populations.

Approach

Cross-functional pipeline governance teams meet to develop an innovative product portfolio that drives positive global health outcomes to:

- Address unmet medical needs and barriers to patient experience
- Increase the speed and breadth of patient access
- Drive excellence in product life cycle management
- Understand long-term impacts of scientific advances

In 2020 we made a commitment that our clinical trials represent the diversity of the communities with the relevant disease. As a science-led, patient-focused organisation, we have an obligation to play our part in addressing health inequities and eliminating discrimination from the delivery of healthcare.

We also progressed our Digital Health R&D approach, which focuses on developing novel digital solutions that harness the power of data and analytics to transform medicines development and improve patient outcomes and experience. Learn more on our website.

In 2020, we worked to advance our approach and identify innovations, aiming to:

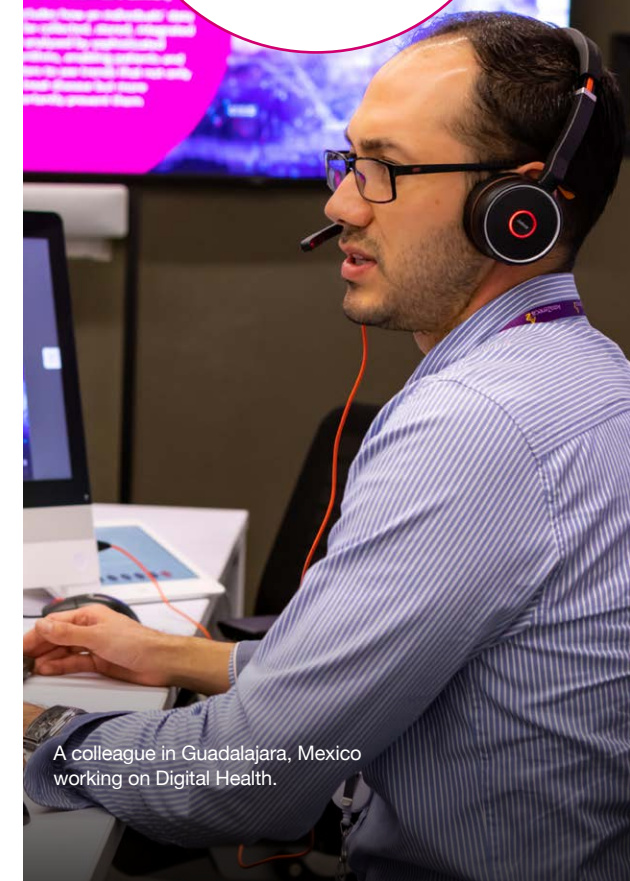
- Consider diverse geographical selection for clinical trial development, including low- and middle-income countries
- Provide early access and continued post-trial access for clinical trial participants
- Collaborate to advance scientific understanding and build local capacity for R&D
- Consider how our products will affect the populations they intend to treat within the R&D phases, through our work on product safety and Product environmental stewardship
- Consider the range of ethical patient access issues that arise from biological and medical science

Responsible R&D is closely related to other areas of our sustainability strategy, such as Affordability, Investments in health systems, and Ethical business culture, including Bioethics.

Our work contributes to these Sustainable Development Goals:
SDG 3 | Good health and wellbeing
SDG 17 | Partnership for the goals



We're progressing our Digital Health R&D approach, which focuses on developing novel digital solutions that harness the power of data and analytics to transform medicines development and improve patient outcomes and experience.



A colleague in Guadalajara, Mexico working on Digital Health.

Responsible research and development continued

Sustainability in action

Diversity in clinical trials

We are taking action to ensure that our clinical trials represent the diversity of the communities with the relevant disease. Our actions include:

- Developing ways of using internal and external data sources to establish clinical trial diversity data baselines and identify gaps
- Expecting consideration of patient insights and disease population diversity early in project planning
- Clarifying criteria for reimbursement of lost work time to remove barrier to trial participation
- Initiating training for new and diverse investigators
- Characterising our key opinion leaders, patient interest groups and advisory boards to help align to our representation objectives
- Building alliances within key communities and within the industry. In 2020, AstraZeneca's Chief Medical Officer joined the Executive Committee of the [Multiregional Clinical Trial initiative](#) at Harvard University, which is working on an inclusion and diversity toolkit for clinical trials. A guidance document was released to help pharmaceutical companies achieve diversity, inclusion, and equity in clinical research, along with a set of useful toolkits for clinical trial diversity

For more on our approach to ensuring all that we do reflects the diversity of the communities we serve, see [Inclusion and diversity](#).

Harnessing digital to optimise the patient experience

Digital health is the point at which healthcare, technology, data and analytics converge. The World Health Organization believes digital health has the potential to improve health for everyone.² Here are two examples of our digital health work:

Clinical trials

We aim to increase access for underserved communities by using digital technologies. One of the challenges of study participation for patients is the amount of time spent attending clinic visits. With virtual visits, non-invasive data collection and technology that monitors patients in their homes instead of in a hospital setting, we are reducing the number of clinic visits needed. We are scaling this model globally across our therapy areas and implementing strategies that aim for the majority of our clinical trials to be hybrid — partially in-person and partially virtual.

Digital therapeutics

As we move forward, the use of devices and sensors to remotely monitor patients should reduce by half the incidence of acute hospital visits across all our therapy areas. Our vision is to reimagine healthcare by delivering better outcomes using digital therapeutics (DxTx). In 2020, we developed an innovative DxTx aimed at supporting earlier identification and management of Interstitial Lung Disease (ILD). ILD is an umbrella term for a wide range of conditions that cause scarring (fibrosis) of the lungs, impacting the patients' ability to breathe. The new DxTx is intended to enable the early detection and management of ILD.

Greater access to children's cancer medicines

The AstraZeneca Paediatric Oncology Working Group was established to set objectives to address unmet medical needs in paediatric oncology. In 2020, the group established partnerships with [Children's Oncology Group](#) and [Innovative Therapies for Children with Cancer in Europe \(ITCC\)](#) to ensure AstraZeneca delivers optimal paediatric studies, while securing pivotal access to the rare and vulnerable paediatric population. The Group's internal engagement with project teams aims to raise awareness of the need to accelerate initial paediatric evaluation of AstraZeneca's cancer medicines.

"Developing appropriate medicines is absolutely critical for paediatric patients. And I'd urge everyone to build this thinking into their project strategies early, and challenge the norm and make this the new normal."

— **Eileen McBride**, Project Leader, Intelligent Pharmaceuticals

Digital health is the point at which healthcare, technology, data and analytics converge.



Challenges

The pandemic had an impact on initiation, ongoing recruitment and follow-up in some clinical trials, primarily in the early stage. We believe it remains prudent to assume that additional delays will arise as a consequence of the pandemic.

★ Highlights

AstraZeneca CEO signs historic vaccines pledge

In collaboration with nine biopharmaceutical companies, Pascal Soriot signed a [pledge](#) to continue to develop and test potential vaccines for COVID-19 in accordance with high ethical standards and sound scientific principles.

Research on treating and preventing COVID-19

We are studying preventative options for people exposed to COVID-19, as well as to treat and prevent disease progression in patients already infected with the virus. See more in [COVID-19 actions](#).

Accelerating patient access to our medicines

AstraZeneca implemented a project to identify changes needed to submit for approval in international markets at a rate 50% faster than previously. Accelerated filing times should result in patients receiving our life-changing medicines sooner. This project aims to increase the speed to file in multiple countries on the Access to Medicines Index (ATMI), including Brazil, China, Colombia, Egypt, India, Indonesia, Iraq, Mexico, Philippines, South Africa, Thailand, and Vietnam.

Environment's impact on health

Our work contributes to these Sustainable Development Goals:

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



Why it matters

The planet's health is our health. The relationship between our health and the planet's health is circular, with humans and nature impacting each other. We are dependent upon nature for healthy air, water, soil and overall climate. We must minimise our impact on nature so that we continue to support a healthy future.

As a healthcare company, we have a responsibility to raise awareness of the interdependence between the health of our planet and the health of people. By fostering healthy environments, prevention and mitigation efforts contribute to healthier populations and can also benefit the healthcare systems our business relies upon by helping control the incidence of disease on a global scale.

The World Health Organization estimates that nearly 14 million people die each year as a result of living or working in an unhealthy environment, including eight million people from air pollution alone.¹ The climate crisis poses risks to public health, with rising global temperatures now accelerating respiratory and cardiovascular disease, food insecurity, changes in water-borne and vector-borne illnesses, increasing allergens, as well as mental health effects. People in low- and middle-income countries are disproportionately impacted, which exacerbates pre-existing inequalities of disadvantaged groups.²

Description

Company efforts to prevent disease and improve health outcomes by addressing environmental determinants of health. These determinants include climate change, air and water quality, the built environment, and the environmental dimension of antimicrobial resistance (AMR).

Approach

Our approach recognises that the health of our planet and the health of people are intrinsically linked. We address our environmental impacts from the beginning of our research process all the way through to cross-sector collaborations for improved health of people and the planet.



We know that the benefits from reducing our environmental footprint can take effect within a few years of reducing emissions and modifying environments. This can in turn help prevent certain diseases,³ such as chronic obstructive pulmonary disease, lung cancers, stroke and heart disease.

In 2020, we committed to health equity — to ensuring that everyone has an equal opportunity to be as healthy as possible, by removing barriers to access and eliminating discrimination from the delivery of healthcare. This compels us to consider health disparities faced by populations disproportionately affected by pollution and unhealthy environments.



Pipeline

Increasing our understanding of environment's impact on health in relation to our therapy areas



Production

Driving improved environmental performance of our operations for measured impact on human health



Products

Life cycle considerations of human health impacts for manufacture, use and disposal of our products



Programmes

New programmes and scaling existing programmes to improve human health through a healthier environment



Partnerships

Cross-sector collaborations and research for environmental health indicators and outcomes



Environment's impact on health continued

Sustainability in action

Research on connection between air quality and diseases in Uganda

Outdoor air pollution accounts for an estimated 4.2 million premature deaths per year,⁴ creating a significant burden on public health systems. In Uganda, public awareness on the effects of air pollution is low,⁵ despite evident high levels of outdoor air pollution. In partnership with the Cambridge Institute for Sustainability Leadership (CISL), AstraZeneca launched a new research fellowship to explore strategies to reduce outdoor air pollution in Uganda and promote healthy communities through evidence-based policies.

A CISL fellow will collect data in two locations in Uganda (Kampala, and Jinja) and compare strategies in these locations to air quality management efforts in other African cities and London. This study aims to create a platform for knowledge sharing among stakeholders responsible for addressing outdoor air pollution in Uganda. The platform should increase the ability of health practitioners to manage the impact of air quality on respiratory, oncological and cardiovascular disease prevalence. This research will be developed with input from the Medical Research Council Epidemiology Unit at the University of Cambridge and the Global Public Health Research Programme at Makerere University, as well as other stakeholders across Cambridge and Uganda. Read more on our [website](#).

Air pollution added as focus to the YHP

Many non-communicable diseases (NCDs) are influenced by a set of risk factors related to the environment where we live. Approximately 70% of premature deaths from NCDs can be linked to behaviours that started in adolescence.⁶ Our [Young Health Programme](#) (YHP) works to help young people take control of their health and prevent NCDs. In 2020, we set and met our goal to have all new country programmes with our partner Plan International include air pollution as a focus. Learn more about the YHP on our [website](#).



Research on the environmental dimension of AMR

Antimicrobial resistance (AMR) occurs when bacteria, viruses, fungi and parasites evolve over time and no longer respond to medicines. This makes infections harder to treat and increases the risk of disease spread, severe illness and death. As a result, medicines become ineffective and infections persist in humans, increasing the risk of spread to others.⁷

In 2020, AstraZeneca and other scientists published a [paper](#) that found the current understanding of safe antibiotic levels in rivers may not prevent evolution of antibiotic resistance and fully protect human health. This research suggests the need to introduce thresholds to help address the spread of resistant bacteria. This paper is part of AstraZeneca's commitment to the United Nations [Roadmap](#) on Antimicrobial Resistance. In addition, AstraZeneca published a novel approach called 'SElection End points in Communities of bacTeria' (SELECT) to include the selection potential for AMR within the environmental risk assessment of antibiotics.

AstraZeneca also funded and co-authored [research](#) on antibiotic residues in sewage and agricultural run-off. This focused on the development of a novel method to establish safe release limits for antibiotics that could also help to identify highly-contaminated areas through environmental surveillance. The findings are being used in the United Kingdom to advocate for environment-related recommendations to be added to the government's five-year action plan on AMR.

"The purpose of this project is to study the interconnectivity between environmental health and disease with a view to helping foster healthier and safer communities. I'm delighted to lead this project which has the wider ambition to raise public awareness of air pollution exposure and inform stakeholders across African cities when formulating evidence-based policies addressing outdoor air pollution, as well as guiding health professionals when interpreting air quality data in the management of patients with respiratory disease."

— **Dr Gabriel Okello**, Prince of Wales Global Sustainability Fellow, CISL

Challenges

Global dialogue and action to combat the climate crisis, along with the devastation of the COVID-19 pandemic, have brought into sharper focus the consequences of the environment's impact on health. Global risks are acutely felt, and local risks can quickly go global. As we look to the future health of the planet and people, we should work to increase resilience to future shocks with our partners.

Highlights

Turning waste into clean energy

In collaboration with Cambridge Institute for Sustainability Leadership (CISL), biodigesters installed for the [Dunga Beach](#) pilot project on Lake Victoria in Kenya are being maintained to monitor the transformation of waste into clean energy and reduce exposure to air pollution from cooking stoves in the surrounding community.

Investing in people- and planet-healthy buildings

Designing workplaces that promote health for people and the environment is important to us. We adopt appropriate external environmental assessment tools in order to optimise environmental design for future buildings. Three of our sites are located in buildings certified by Leadership in Energy and Environmental Design (LEED): Gaithersburg, US; Prague, Czech Republic; and South San Francisco, US.



Investments in health systems

Why it matters

Health disparities exist in all healthcare systems — with marginalised populations disproportionately impacted in both developed and low- and middle-income countries. Widespread collaboration is needed to create the system-wide changes necessary to address health disparities and ensure that everyone receives equitable, quality healthcare.

As a healthcare company, we are committed to health equity — to ensuring that everyone has an equal opportunity to be as healthy as possible, by removing barriers to access and eliminating discrimination from the delivery of healthcare. We also seek to make health systems more resilient to withstand future crises.

Our investments support patients on their path to wellness. They enable us to gain a more intimate understanding of global, regional and local health challenges so that we can address gaps by developing targeted medicines and treatments.

Description

Company contributions to strengthening healthcare capabilities and infrastructure — including in developing and emerging markets — to facilitate access to healthcare and improved quality of healthcare and outcomes.

Approach

The nature of diseases and infection and their risk factors call for multi-sector involvement in prevention and control measures. We work with stakeholders to align on our shared objectives and develop interventions that are optimised to address 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:

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

In 2020, we launched The Partnership for Health System Sustainability and Resilience (PHSSR) with the London School of Economics (LSE) and the World Economic Forum (WEF), motivated by a shared commitment to improving population health, through and beyond the COVID-19 pandemic. Change is needed to build health systems that are both resilient to crises and sustainable in the face of long-term stresses. From new models of care, to innovative financing mechanisms and breakthrough technologies, PHSSR aims to make change happen, by identifying transferable solutions with the greatest potential, and supporting their adoption to deliver better health and better care for all.

Read about our approach to [health systems resilience](#).



Healthy Heart Africa launch event in Uganda.

Our work contributes to these Sustainable Development Goals:
SDG 3 | Good health and wellbeing
SDG 17 | Partnership for the goals



Key targets and progress

2025 target

Reach 50 million people through our access programmes, including: Healthy Heart Africa, Young Health Programme (YHP), Healthy Lung and Phakamisa.

Status: On plan

2020 update

More than 25m people reached (cumulative). This target has been modified to double the people reached and now encompasses four Access to healthcare programmes.

2025 target

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

Status: On plan

2020 update

More than 132,000 healthcare workers trained (cumulative). The previous target of 75,000 was achieved in 2019.



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

Investment in health systems continued

Sustainability in action

Investments aligned with our business capabilities

We have three main therapy areas — oncology; cardiovascular, renal and metabolism; and respiratory. Our investments in health systems are aligned to these therapy areas, to ensure connection to our overall company strategy and business model. The stories below outline 2020 progress for each therapy area.



Respiratory

Redefining care for severe asthma patients across the globe

With more than 34 million people affected by asthma worldwide,² we have made a long-term investment to improve severe asthma patient care through our PRECISION programme. PRECISION brings together leading experts in asthma and healthcare policy to ensure severe asthma patients routinely receive the right care, at the right time, in the most appropriate setting. Our efforts are focused on accelerating appropriate referrals to specialists, building capability and capacity and improving policy and access. Launched in 2017, PRECISION operates across 56 countries and with the involvement of more than 160,000 healthcare professionals — transforming clinical standards and patient referral pathways and identifying patients most at risk based on potential over-reliance on oral steroids.

Africa Pumua Initiative

Launched in 2020, Africa Pumua aims to improve paediatric and adult asthma management across healthcare sectors in Ghana and Kenya, in partnership with governments and healthcare professional societies. The initiative forms part of our commitment to deliver improved accessibility and availability of quality care in Africa.



Cardiovascular

Healthy Heart Africa pivots to address COVID-19

In Sub Saharan Africa, cardiovascular diseases (CVD) are the most frequent causes of non-communicable disease (NCD) deaths, responsible for approximately 13% of all deaths and 37% of all NCD deaths.¹ Our Healthy Heart Africa (HHA) programme contributes to the prevention and control of hypertension and decreasing the burden of CVD across Africa. Currently in its 6th year of implementation, HHA is present in five countries — Kenya, Ethiopia, Tanzania, Ghana and Uganda.

Many of our Access to healthcare programmes have been impacted by the pandemic. In line with our Values to do the right thing and put patients first, we asked our HHA partners to suspend routine community activities and offered support to them, their healthcare facilities and the local communities. We proposed that our partners reallocate their programme budget towards safety measures and personal protective equipment such as masks and gloves. We also supported the Kenyan Ministry of Health, providing them with a platform to distribute COVID-19 materials to their healthcare facilities. Together we invested funds to:

- Raise awareness of how to limit the spread of the virus
- Protect those on the clinical front line in community health



Project Heartbeat in India

Launched alongside Tricog Health, this project addresses local demand for early diagnosis and intervention for heart attack patients, by enabling cloud-based artificial intelligence diagnosis of electrocardiograms (ECGs), routing patients to the nearest Cath Labs, and allowing for accurate diagnosis, ultimately improving patient outcomes. To date, 2,195 ECGs have been conducted; 922 abnormal cases have been detected from which 112 critical MIs were identified, referred and treated — all within an average diagnosis time of two minutes.



Oncology

Investing to transform cancer care

Lung cancer is the leading cause of cancer-related death. Approximately one in five people are alive five years after initial diagnosis.³ We have an ambition to change these statistics and eliminate cancer as a cause of death. In 2019 we joined the Lung Ambition Alliance to collaborate with peers and partners to find the best possible solutions for lung cancer patients. In 2020 the Alliance launched the Lung Cancer Care awards, inviting patient and caregiver non-profit organisations to submit grant applications for projects that go beyond prevention to support people with lung cancer at different stages of diagnosis. The initiative recognises the very specific local barriers to quality care that must be considered when developing patient centric solutions. The Alliance awarded 13 organisations, representing six countries, that seek to transform cancer care at different points along the lung cancer patient experience.

Our Healthy Heart Africa partners in Kenya — the Kenyan Conference of Catholic Bishops (KCCB) — host COVID-19 awareness events.

Challenges

We are aware of the challenges that some markets face with regards to their healthcare gaps and that their journey to resilience may not be realistic in the near-term. In 2020, we adjusted our programmes to meet local needs related to COVID-19.



Highlights

Donation of 10,000 blood pressure monitors

In alignment with the South African National Department of Health's vision of task shifting to community health workers, AstraZeneca donated blood pressure monitors to support screening of NCDs.

Phakamisa oncology programme renewed

In partnership with the South African National Department of Health, Phakamisa aims to support implementation of the National Cancer Campaign which seeks to address awareness, early diagnosis and access to care for breast and prostate cancer patients.

Early cancer screening programme in India

The Ganga Godavari programme focuses on specialised cancer screening for oral, breast and cervical cancer. It creates awareness through community health education activities and follow-up processes to ensure effective hospital referrals for cancer patients and their treatment. Since its launch in 2019, 4,000 beneficiaries have been screened.



Affordability

Why it matters

AstraZeneca is committed to driving equitable access to medicines for patients globally. Our medicines help address unmet medical needs, improve health and create economic benefits. We must work on affordability today to ensure that in the long-term, patients can access our medicines, and there are resources and infrastructure available to purchase and distribute our medicines equitably.

Industry, policy makers and payers need to work together to create a more resilient health system, and to develop solutions to pay for the value of medicines while addressing global variation in affordability.

By working on affordability solutions for patients and payers, we can ensure that our medicines are made available and that we focus on delivering treatments that are targeted and effective to meet patient needs. This can help to lower healthcare costs by preventing more serious and costly diseases and reducing the need for more expensive care.

Description

The company's position, policy and performance on the pricing of medicines, including core pricing principles, tiered pricing, and access and affordability programmes.



Approach

We understand that a medicine's value within a particular healthcare system is unique, with different healthcare costs, patient populations and societal priorities across each health system. Our approach is therefore driven by the belief that the price of a medicine should reflect its value, maximise patient access, and provide flexibility to accommodate variation in global health systems and economic realities for patients.

We apply value-based agreements (VBA)¹ to hold ourselves accountable and ensure patients are truly benefiting from our products. VBA is an agreement that reduces uncertainty of payers (economic or clinical) where access, reimbursement or price is linked to real world clinical benefit.

We work closely with healthcare systems, payers and policymakers, with the aim of improving health system resilience and to ensure access is widespread. We strive to support equitable access to healthcare globally by:

- Coordinating programmes with country health systems to deliver medicines in a locally affordable context for patients
- Supporting infrastructure, for example training healthcare professionals and facilitating clinics for screening and diagnosis
- Delivering programmes which focus on making medicines available through donation to eligible patients (i.e. free of charge)
- Tailoring payment models, including tiered pricing (based on gross national income) and value-based agreements

 Read more in our [Affordability statement](#).



See [Sustainability Data Summary](#) for Affordability figures.

By working on affordability solutions for patients and payers, we can ensure that our medicines are made available and that we focus on delivering treatments that are targeted and effective to meet patient needs.



Affordability continued

Sustainability in action

Access and affordability programmes

Many people around the world face barriers to accessing medical treatment and healthcare. Some lack insurance or do not have the ability to pay for medicines. Some live in medically underserved communities. Some need to choose between paying for healthcare or paying for food. The issues are complex. We have offered access and affordability programmes to patients for more than 36 years in countries all over the world. These programmes are designed in partnership with local health systems to help patients gain access to the medicines and healthcare they need.

Our access and affordability programmes are available to patients who meet the eligibility requirements. These programmes range from removing barriers to access, to reducing out-of-pocket costs through discounts or co-pays, to offering medicines for free to those who cannot afford to pay.

Patient Assistance Programmes

Our Patient Assistance Programmes (PAPs) offer medicines to patients who cannot afford to pay and who meet certain eligibility requirements. Our largest PAP is AZ&Me in the US. AZ&Me is governed as a 501(c)4 organisation, operating under a strict regulatory structure for the purpose of social support and is separated by this structure from our commercial business. In 2020, we donated more than \$1.6 billion in medicines through AZ&Me to patients who could not afford to pay.

Reducing costs in emerging markets

We have a variety of patient access programmes in emerging markets, each tailored to meet the needs of the local community.

Faz Bem is an AstraZeneca patient access programme in Brazil aimed at improving affordability of our medicines. The programme offers different discounts for patients, providing access across the country and aims for treatment adherence. Faz Bem is available in 27,000 pharmacies covering all Brazilian states. In 2020, we enrolled 277,000 new patients, and reached 642,000 patients with chronic diseases such as cardiovascular disease, dyslipidemia and asthma.

Donating medicines

We donate our medicines through non-profit partners who support patients in medically underserved communities, humanitarian settings and/or through disaster relief efforts. In 2020, we donated \$12 million of medicines to Americares for use in their Free Clinic network in the US. This network improves the health of people living in or near poverty, by providing no- or low-cost care. We also donated \$15 million of oncology, respiratory, metabolic and cardiovascular medicines to Direct Relief to facilitate a rapid response in times of crisis. These medicines were redistributed to Haiti, El Salvador and Myanmar as part of COVID-19 relief efforts.

While we recognise that donating medicines is not a long-term solution in isolation, it is an option to address an immediate need and we remain committed to working with health system stakeholders and payers towards more systemic solutions.

Value-based agreements

Value-based agreements are designed to enable timely patient access while reducing uncertainty of payers (clinical or economic), ultimately to improve patient outcomes and health system effectiveness. In 2020, we worked closely with a European government to create an outcomes-based agreement for a medicine that treats severe asthma. This agreement links reimbursement to real-world data, thereby ensuring that only patients who receive a benefit continue treatment and that the health system only reimburses AstraZeneca for these patients.

We have entered into over 100 innovative value-based agreement partnerships, across our three main therapy areas. The number of contracts has more than doubled versus 2019. We anticipate value-based agreements will continue to increase to ensure timely access for patients. We will continue to invest in partnerships to support data collection system design and to demonstrate the real-world value of our medicines.

We have entered into
**over 100
value-based
agreement
partnerships,**
across our three main
therapy areas.



Challenges

The category of 'Pricing, affordability, access and competitive pressures' is an AstraZeneca principal risk with the potential to have a material impact on our business or results of operations, as described in our [Annual Report](#).

We operate in more than 100 countries around the world, which means we are subject to political, socioeconomic and financial influences from each of those geographies, as well as from the perspective of a global company. There can be additional scrutiny from governments and healthcare systems on the price of medicines, for example in response to broader economic pressures. This can impact our financial performance and therefore have an effect upon the scale of investment we can make in the discovery and development of new medicines.

★ Highlight

Increasing access for breast cancer patients in rural Cambodia

In 2020, we celebrated the 12th year of our collaboration with Americares and the Sihanouk Hospital Center of Hope (SHCH) for the Cambodia Breast Cancer Initiative. This programme aims to increase early diagnosis and treatment for women living in rural areas. In 2020, the programme administered more than 18,500 units of donated AstraZeneca medicines to post-menopausal breast cancer patients. Since the programme began, more than 4,200 patients have received treatment.



Connection to health:
Supporting a healthy environment helps prevent the onset of certain diseases and improve health outcomes



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

SDG 12 | Responsible consumption and production

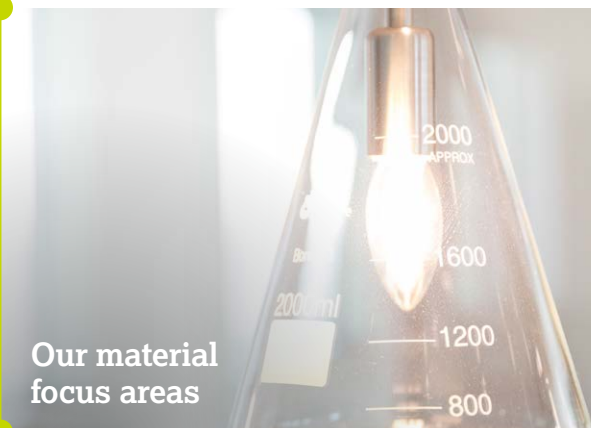
SDG 13 | Climate action

SDG 17 | Partnership for the goals

Environmental protection

The health of the planet impacts all life

Our ambition:
Demonstrate global leadership to proactively manage our environmental impact across all our activities and products



Our material focus areas



Product environmental stewardship



Greenhouse gas reduction



Pharmaceuticals in the environment



Water stewardship



Waste management



2020 performance

60%

reduction in Scope 1 and 2; GHG emissions since 2015

2%

reduction in our waste since 2015

20%

reduction in our water use since 2015

1st

life cycle assessment study completed for a clinical trial

100%

of active pharmaceutical ingredient discharges from AstraZeneca owned sites demonstrated as safe;¹ 94% of discharges from direct suppliers demonstrated as safe¹



See Sustainability Data Summary for full metrics and methodology.

Environmental protection overview

The relationship between our health and the planet's health is circular, with society and nature having a huge impact on one another. The effects of the continued growth of the global economy and its reliance on fossil fuels are putting at risk not only human health, but also the ability of the Earth to sustain life. We must innovate to ensure sustainable growth that doesn't compromise the natural resources upon which we all rely, and which underpin societal and planetary health.



To sustain life on Earth, we must work within the systems that nature evolved, and the human formed systems of society and business. Global society is depleting the Earth's natural capital — such as water, forests and biodiversity — at rates faster than nature can replenish. Pollution takes a heavy toll on human health, reflected by an estimated nine million premature deaths globally.¹ We are taking action now because we recognise the inextricable link between a healthy planet and healthy people.

We envision a future where we help restore our planet to health by:



Maximising our positive environmental impacts and minimising our negative impacts, while improving health outcomes



Working in harmony with society and the natural environment, embracing a more circular mindset to how we innovate



Decoupling our growth from our use of natural resources

The big picture

Addressing the climate crisis is the century's greatest global health opportunity;² it's also an opportunity to address systemic inequities. As an organisation committed to health equity, climate action is central to our sustainability strategy because climate change amplifies and accelerates existing social inequities, including physical and mental health issues, poverty, forced migration, and disparities in education, housing, wealth, etc.

COVID-19 has demonstrated the significant negative impacts that result from humans living out of harmony with nature. Deforestation, biodiversity loss and development activities such as agriculture and urban sprawl have increased the risk of transmission of zoonotic infectious diseases, such as COVID-19, from animals to humans.³ Addressing the root causes of the pandemic presents a unique opportunity to transition towards an economy centred around people and nature.

Most of AstraZeneca's environmental impact is embedded in our products and the goods and services we purchase, rather than at our sites. There is increasing scrutiny of the environmental footprint of medicines and there are signals of change towards the procurement of medicines with a smaller footprint. Over the next decade we expect environmental issues will become much more commercially material and a differentiator in the market place.

Material focus areas

Our approach addresses five environmental focus areas, as identified by our [materiality assessment](#):



[Product environmental stewardship](#)



[Greenhouse gas reduction](#)



[Pharmaceuticals in the environment](#)



[Water stewardship](#)



[Waste management](#)

See [Environment's impact on health](#) for more ways we are contributing to a healthy planet and healthy people.

Key accomplishments

- [Product environmental stewardship](#): Developed internal Product Sustainability Index
- [Greenhouse gas reduction](#): Launched [Ambition Zero Carbon](#)
- [Pharmaceuticals in the environment](#): Initiated IMI PREMIER project
- [Water stewardship](#): Ranked on CDP A list
- [Waste management](#): Founding member of the [Circular Bioeconomy Alliance](#) and co-author of [10-point action plan](#) for the circular bioeconomy

Environmental protection overview continued

Governance

Environmental matters are managed by the Executive Vice-President (EVP), Sustainability and Chief Compliance Officer, who reports to the CEO. Implementation is conducted in partnership with key functions including Operations and Oncology and BioPharmaceuticals R&D. In 2020, a Global Head of Environmental Protection was appointed for implementation and delivery of our environmental protection strategy. Our unified quarterly scorecard tracks 16 Environmental protection metrics and communicates our performance to all employees.

In 2020, we established an Ambition Zero Carbon Governance Group with executive-level ownership, accountable for the delivery of Ambition Zero Carbon. The group meets monthly and includes our CEO, CFO, the EVP, Sustainability and Chief Compliance Officer, and the EVP, Operations and IT. A Taskforce on Climate-related Financial Disclosures (TCFD) steering group was also established with cross-functional membership to identify and proactively manage the physical and transitional risks and opportunities posed to AstraZeneca by climate change.

The guide for our environmental management system (EMS) — our global safety, health and environment (SHE) management principles — is embedded in our [Code of Ethics](#). A SHE management system is implemented in line with recognised international standards e.g. ISO 14001 and 50001.

Key parts of our EMS include:

- Mandatory standards for activities that can cause environmental harm
- Risk management system to control change and local risk registers
- An enterprise OneSHE Advisory board with representation from SHE leads at strategic sites
- Annual management system review signed off by site leads and evaluated at an enterprise level
- Audit programme, led by an independent organisation, with auditors from across the business trained in auditing to ISO standards, reporting back to functional leads and the Audit Committee and more⁴

To drive our climate action initiatives and meet our environmental targets, we have a dedicated fund managed by a Natural Resources Reduction Governance Group (NRRGG). This fund has invested more than \$100 million in environmental efficiency innovations since 2015, including \$19 million for 42 new projects in 2020. We use site water scarcity assessments and natural resource audits to identify opportunities for management and investment. In 2020, seven sites were internally assessed for efficiency opportunities.

Taskforce for Climate-related Financial Disclosure (TCFD)

As part of Ambition Zero Carbon and our progress on climate resilience, we are publishing our first voluntary disclosure in line with the recommendations of TCFD. Our intention is to demonstrate how we consider the impact of climate change issues on our business and integrate climate-related risk and opportunities into our governance, risk management and strategies. See the AstraZeneca TCFD disclosure statement within our [Annual Report](#).

COVID-19 Impacts

We remained steadfast to our environmental commitments throughout the pandemic. We have advocated for a 'rebuilding better' approach. We became signatories to several landmark public-private sector initiatives including: [Uniting to Recover Better](#); and [Race to Zero](#).

We recognise that several of our annual Environmental protection measures were impacted by the pandemic and may not reflect a typical trajectory.

\$100 million
invested by NRRGG fund
in environmental efficiency
innovations since 2015, including
\$19 million for 42 new projects
in 2020.

Some sites have sought external certification, including:

ISO 14001

(environmental management)

- Shanghai, China
- Milan, Italy
- Macclesfield, UK
- Gothenburg and Södertälje, Sweden (representing 17% of employees covered)

ISO 50001

(energy management)

- Macclesfield, UK
- Gaithersburg, US (representing 26% of total energy consumption)



See [Workforce wellbeing and safety](#) for our occupational health and safety ISO certifications.



Product environmental stewardship

Our work contributes to these Sustainable Development Goals:



SDG 12 | Responsible consumption and production
SDG 17 | Partnership for the goals

Why it matters

People and the planet benefit from medicines with the smallest possible environmental impact, while not sacrificing medical efficacy or safety. As technologies and healthcare systems evolve, so too should solutions to reduce energy, water, material use and waste generated from delivering medicines to patients.

AstraZeneca is responsible for its choices in raw materials sourcing, manufacture and formulation of active pharmaceutical ingredients (APIs), and device and packaging selection. As we improve our processes, we can implement change ahead of evolving regulations, and lower costs of supply. This allows us to reinvest in life-changing medicines and improve patient access to healthcare solutions.

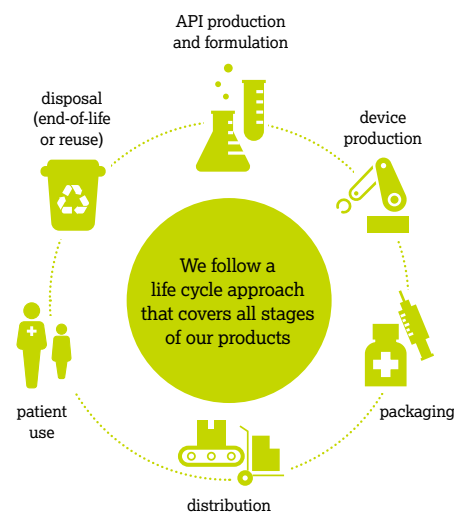
Description

Company efforts to identify, address and minimise the environmental impact of products from discovery in early R&D through development to launch of a new product and during its commercial lifetime to end-of-use.

Approach

- Design out negative environmental impacts
- Life cycle assessments to measure the environmental impacts of our products
- Resource efficiency through targets to lower process mass intensity (PMI)

We manage the environmental impacts of our products from discovery in the lab all the way through to the end of a product's life. We evaluate all materials and processes used to make our products and our scientists proactively investigate opportunities to close the production loop and strive towards circular solutions across our product value chains.



We utilise life cycle assessment (LCA) methodology to measure the type and magnitude of environmental impacts that sit across our product value chains. We adhere to ISO LCA standards [14040](#) and [14044](#) to ensure our environmental impact data are reliable, robust and relevant. This knowledge not only enables action to be taken to improve the environmental performance of our products, but also provides vital information on the type of investment required to embed sustainability in the value chains of our future medicines.

While the pharmaceutical industry's absolute use of raw materials is relatively low in comparison to other industries, the conversion of those raw materials into products can be inefficient. We use a metric called process mass intensity (PMI) to measure our raw material efficiency. PMI is measured as kilograms of raw materials used to produce a kilogram of the final API. A lower PMI means we are using materials more efficiently. Our 2025 target for our small molecule drug projects is for 90% of new API production processes to meet PMI targets by launch.

In 2020 we updated our two internal governance procedures that provide medicine development projects with a framework to complete key SHE activities such as environmental, process safety and occupational toxicology assessments and chemical registration at defined development milestones. These ensure compliance and embed sustainability in our manufacturing processes prior to commercial manufacture.

Key targets and progress

2020 target

Develop resource efficiency targets for biologic products.



Status: Achieved

2020 update

We set an internal PMI target for monoclonal antibody projects (our largest class of biological products).

2022 target

95% of paper-based product packaging materials used are supplied from sustainable sources.



Status: Lagging

2020 update

Progress was made towards the target of 95%. Learn more about our use of commodities linked to deforestation in our new [Forestry Statement](#).

2025 target

90% of API syntheses meet resource efficiency targets at launch.



Status: Lagging

2020 update

Since 2015, 67% of projects (two of three) have met defined resource efficiency targets. In 2020, a new oncology medicine met its PMI target at launch and we achieved a PMI reduction of 9% across the late stage project portfolio.



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

Product environmental stewardship continued

Sustainability in action

Driving sustainability performance and product innovation

Many inputs from nature, such as water and raw materials, are needed across the pharmaceutical value chain to deliver our life-changing medicines. We need to dramatically reduce our resource consumption and minimise waste production in order to manage our environmental impact and achieve [Ambition Zero Carbon](#). In 2020 we developed and piloted an internal Product Sustainability Index (PSI) to advance product environmental stewardship performance and innovation across our therapy areas. Our goal is for all our products to be assessed against the PSI to track environmental sustainability — from development to launch and beyond — to inform environmental improvement plans for project teams.

The PSI has scoring criteria across six categories:



Carbon: greenhouse gas (GHG) footprint of a product across the whole value chain, per patient, per year



Power: percentage of renewable electricity, not including energy supplied for heating, used in manufacture across a product's supply chain



Water (resource): water consumption across the whole value chain, per patient, per year



Water (releases): risk of API discharges to the environment resulting from patient use and manufacturing (see [Pharmaceuticals in the environment](#))



Resource use: use of raw materials in drug substance manufacture



Innovation and improvement: improvements made across the five categories above, driven by innovative approaches during the product life cycle



Improved quality of healthcare can lead to smaller GHG footprint

Our medicines are delivered to patients through healthcare systems, which can be significant contributors to greenhouse gas (GHG) emissions in the public sector. Increasingly, healthcare providers are looking at ways to deliver improved patient outcomes with a smaller GHG footprint, while at the same time responding to increasing demand upon healthcare services.

In 2020, we led new research to assess how improved treatment and management of common non-communicable diseases, such as asthma, can lead to a reduced GHG footprint of healthcare¹. New data using real world evidence has demonstrated that up to 250,000 tonnes of CO₂-equivalent (CO₂e) is released into the atmosphere every year in the United Kingdom alone from the overuse of reliever medication in the treatment of asthma, which is known to be associated with an increased risk of asthma attacks.^{2,3} Identifying opportunities to achieve better outcomes for people with diseases like asthma will reduce the environmental footprint of care and has the potential to be an increasingly important approach to more sustainable healthcare.



We participated in research with healthcare providers to assess how improved care of common non-communicable diseases, such as asthma, can lead to a reduced GHG footprint.

Product environmental stewardship continued

Sustainability in action

Green chemistry in the lab — Nature as inspiration for oncology medicine chemical development

Nature is a source of inspiration for sustainability. In biology, plants employ photosynthesis to convert raw materials like water and carbon dioxide into chemical energy, using the energy of solar photons. The energy efficiency of photosynthesis is a concept considered in the [Principles of Green Chemistry](#). Our process chemists apply green chemistry principles in their continuous search to find better ways to do chemistry reliably, and in more sustainable ways.

In 2020, a team of our scientists employed visible light photocatalysis — which uses blue light as the key source of energy — to drive the production of a key compound en-route to API. The team also substituted precious metal catalysts, regularly used in this type of reaction, with a non-metal catalyst that is readily available. This work represents one of the first examples of a large-scale proof-of-concept, when applying this technology to a complex API intermediate. This project is an important capability build for future API syntheses. Modern drug portfolios are moving away from largely planar chemical compounds, with more complex three-dimensional structures becoming commonplace. Visible light photocatalysis is a key enabling technology for the delivery of such structures.

The sustainability benefits from this project:

- Improvements to the chemistry, including waste, lower PMI and carbon footprint
 - 376% increased yield, thus providing more API per unit starting material
- Avoiding the use of multiple hazardous reagents on large scale, reducing the overall safety risk of operating the process
- Decreased impact from precious metals extraction

Sustainability challenge

We held the second edition of the sustainability challenge run by our Pharmaceutical Technology and Development department in 2020. It focused on sustainable product innovation and raising awareness of sustainability. The challenge empowered employees by offering seed funding for six winning groups to deliver sustainable solutions that align to our sustainability strategy and push the boundaries of science. The winning ideas included recyclable solvents for peptide synthesis and a carbon-zero stage for an API synthesis.



The sustainability benefits from this project include a **376% increase in yield improvement.**



Challenges

We are increasingly exposed to climate-focused environmental policy and regulation and we must adapt to the risks and opportunities that these pose. An example is the Kigali Amendment to the Montreal Protocol, bringing hydrofluorocarbon (HFC) gases, which have high global warming potential (GWP), under a long-term phase-down. Our pressurised metered-dose inhalers (pMDIs) rely on these fluorinated gases (F-Gases) as a propellant and this current regulation could put future revenue at risk if the alternatives we are actively researching are not successful or cannot be substituted into the product. We are also exposed to the US and EU F-Gas review, when there is the risk that some F-Gases used in pMDI-based respiratory products could be subject to emission restrictions from which they are currently exempt. Loss of the medicinal exemption, or failure to have a long-term phased transition, could prevent or limit availability of products in our inhaled medicines portfolio, should these restrictions become applicable before the transition to our next-generation low GWP pMDIs. See the TCFD disclosure statement in the [Annual Report](#) for more information.

Our product value chains have been linear in nature and use raw materials derived from fossil fuels. We have work to do to understand how to transition to a circular model and more sustainable sources.

Highlights

Next-generation inhalers

In 2020, we committed to launch our next-generation inhaler to treat asthma and chronic obstructive pulmonary disease (COPD) with near-zero GWP propellant by 2025. Throughout 2020, we progressed a project spanning all key functions to investigate alternative low-GWP propellant options from an environmental, technical, regulatory, medical, non-clinical and commercial viewpoint.

First life cycle assessment (LCA) for clinical trials

We conducted our first LCA for a clinical trial and completed streamlined LCAs on three recently launched products in the oncology, cardiovascular, renal and metabolism (CVRM), and infection/vaccines therapy areas.

Mistra SafeChem project — safe and efficient chemistry by design

We became a partner and co-sponsor of the [Mistra SafeChem project](#) to enable and promote the expansion of a more sustainable chemical industry.



Greenhouse gas reduction

Why it matters

Greenhouse gases (GHGs) from human activity are the major cause of the current climate crisis. This crisis disproportionately impacts the health of marginalised populations. By undermining the social and environmental drivers of good health, climate change has the potential to exacerbate and intensify existing social inequities such as poverty, forced migration, mental health issues and disparities in education, housing and wealth with the impacts eventually felt by all populations.

The good news is that solutions to climate change have direct and indirect health benefits, representing great opportunities to improve global health — from nature-based solutions to diet changes.¹ Addressing this issue is a business imperative, as climate change is projected to have detrimental impacts on workforce health, productivity and, if not proactively addressed, could compromise business resilience.² The time to act on climate change is now.

Description

Company operations, such as manufacturing and transportation, emit GHGs including carbon dioxide (CO₂), methane (CH₄) and hydrofluorocarbons (HFCs), contributing to climate change. Emissions from product use are discussed in [Product environmental stewardship](#), and we account for this emissions source alongside our entire value chain GHG footprint.

Approach

- **Ambitious targets to mitigate our direct impacts and inspire wider system change**
- **Gaining transparency on Scope 3, our greatest source of emissions**
- **Enterprise-wide governance and executive-level ownership**

In 2020, we launched Ambition Zero Carbon, committing to become zero carbon by 2025 across our operations (sites and fleet) without carbon credits, and carbon negative in our value chain by 2030. Our GHG targets exceed the Science Based Targets initiative (SBTi) reductions required to keep warming to 1.5 degrees Celsius, the most ambitious goal of the Paris Agreement. For Scope 1 and 2, the SBTi would have us at a 42% reduction by 2025. In 2020, we achieved a 60% reduction in Scope 1 and 2 and are on track to achieve a 100% reduction by 2025. A cross-functional Governance Group was launched to execute our climate strategy. This committee is comprised of our CEO, CFO, the EVP, Sustainability and Chief Compliance Officer, and the EVP, Operations and IT. This group demonstrates executive level accountability for delivering Ambition Zero Carbon.

There is a clear link between energy consumption and GHG emissions. We manage both in consideration of the other. We use the World Resources Institute GHG Protocol guidance for Scopes 1, 2, and 3 to identify and measure our emissions and we use the Institute of Environmental Management and Assessment (IEMA) GHG hierarchy approach³ to prioritise our actions. We are working to gain transparency on our greatest source of emissions, Scope 3, which are emissions from our value chain. We are committed to using our influence and knowledge to mobilise our extensive global supply chain to reduce their GHG emissions. See more in [Responsible supply chain](#).

We also seek ways to increase our climate resilience. Our approach to manage the physical and transitional risks and opportunities presented by climate change aims to align with the TCFD framework. See the TCFD disclosure statement in the [Annual Report](#) for more information.

Our GHG targets exceed the Science Based Targets initiative (SBTi).

42% reduction in Scope 1 and 2 by 2025 — SBTi guidance

60% reduction in 2020 — AstraZeneca achieved

100% reduction by 2025 — AstraZeneca on track to achieve

Our work contributes to these Sustainable Development Goals:



- SDG 12** | Responsible consumption and production
- SDG 13** | Climate action
- SDG 17** | Partnership for the goals

Key targets and progress

2025 target

Eliminate Scope 1 and 2 emissions.



Status: On plan

2020 update

60% reduction in emissions since 2015. Increased procurement of renewable imported electricity was the primary driver of reductions in 2020.

2025 target

Reduce selected Scope 3 emissions by 20% from 2015 to 2025.



Status: On plan

2020 update

- 29% reduction in freight and logistics emissions since 2015
- 6% increase in waste incineration emissions since 2015
- 11% reduction in first tier API formulation and packaging energy emissions since 2015

2025 target

100% renewable electricity consumption globally.



Status: On plan

2020 update

89% of all electricity use came from renewable sources.



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

Ambition Zero Carbon

Our journey to a carbon negative future

2025

To eliminate our carbon emissions from our operations by 2025 we will:

- double energy productivity
- use 100% renewable energy for electricity and heat
- switch to a fully electric vehicle fleet
- eliminate F-Gas emissions at our sites

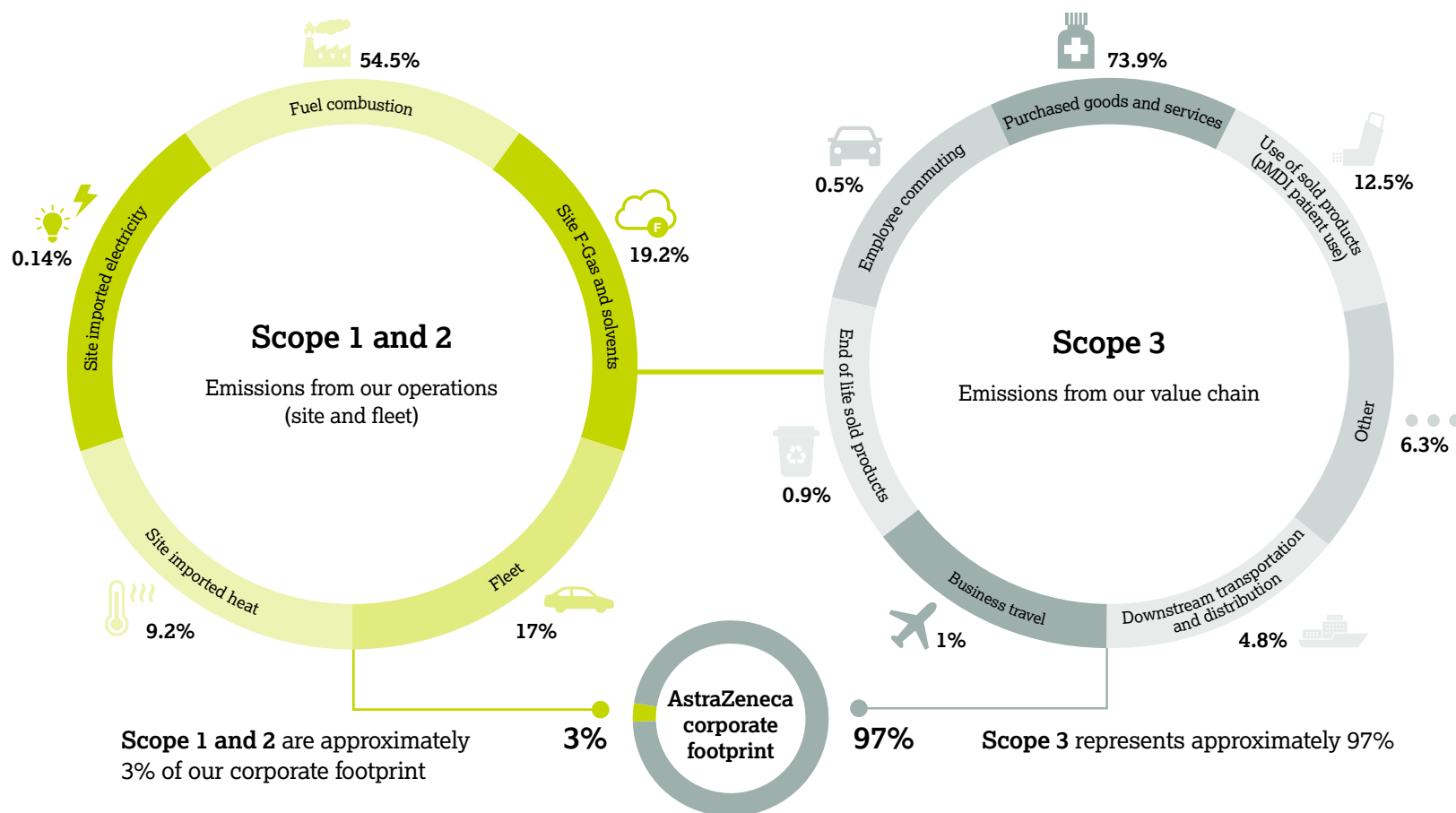
2030

To become carbon negative across the entire value chain by 2030 we will:

- transition to next-generation respiratory inhalers with near zero climate impact
- explore how to 'design in' carbon neutrality across our organisation
- engage with our suppliers to reduce emissions in line with the science of climate change
- plant 50 million trees as a nature-based solution to address climate change

Our Ambition Zero Carbon strategy is to take climate action now for healthy people and a healthy planet. We will do this by becoming zero carbon in our operations (sites and fleet) by 2025 and carbon negative across our entire value chain by 2030. The \$1 billion programme includes the launch of next-generation respiratory inhalers, transitioning to 100% electric vehicles and 100% renewable energy for heat and electricity, and a wide range of efficiency and clean energy initiatives to reduce climate impact to zero, in addition to a 50 million tree planting and stewardship plan.

Our decarbonisation plans fall into two groups:



Other includes: GHG protocol classification emissions for categories 2, 3, 4, 5, 8, 10, 13 — Capital goods, Fuel and energy-related, Upstream transportation and distribution, Waste generated in operations, Upstream leased assets, Processing of sold products, Downstream leased assets.



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

Greenhouse gas reduction continued

Sustainability in action

Progress towards Ambition Zero Carbon

Our Ambition Zero Carbon strategy is to take climate action now for healthy people and a healthy planet. We will do this by becoming zero carbon in our operations (sites and fleet) by 2025 and carbon negative across our entire value chain by 2030.

Renewable energy

In 2020, 89% of our electricity use was from renewable sources, significantly accelerating progress against our 2025 RE100 commitment. This was achieved through increasing renewable imported electricity to 99.9%⁴ and utilising 5.3GWh of on-site solar PV. The remaining 11% of power use was delivered by on-site combined heat and power (CHP) systems that use fossil gas. Decarbonising this source of electricity requires renewable fuels and these are under assessment as part of our emerging clean heat strategy.

As part of this strategy, we are investigating solutions for our global heat demand, delivered mostly through on-site combustion of fossil gas in boilers or CHP plants. In 2020, we joined the Renewable Thermal Collaborative, the leading coalition for organisations committed to decarbonising the energy required for heat in buildings and industrial processes.

In addition, we strengthened our commitments under the Climate Group's EP100 and EV100 initiatives: committing to double energy productivity and switch to 100% electric vehicles by 2025.



We committed to double energy productivity and switch to 100% electric vehicles by 2025.

Mapping priority sites and countries

We prioritised creation of Ambition Zero Carbon roadmaps for our 10 key sites, which cover roughly 50% of our total Scope 1 and 2 emissions. Based on these outcomes, we have clean heat studies underway for our UK and US portfolios considering a broad range of solutions from green gas to electrification of heat. In addition, an electric vehicle (EV) readiness study has been conducted for all markets where we have a fleet presence. Countries that are 'EV ready' have been identified.

Partnerships towards a carbon negative value chain

Our Ambition Zero Carbon goals are ambitious, but mitigation efforts will fail unless we partner with others to transform the global economy. In 2020, 4% of total procurement spend was with companies that have set, or committed to set, Science Based Targets (i.e. emissions goals aligned to the Paris Agreement).

"Congratulations to AstraZeneca on rapidly transitioning to renewable electricity and for committing to renewable heat. Climate Week NYC is the time and place where the world gathers to showcase amazing climate action and discuss how to do more. AstraZeneca is leading the way and showing what is possible — influencing companies all over the world to follow in its footsteps."

— **Helen Clarkson**, CEO, The Climate Group

Challenges

AstraZeneca has integrated climate risks into the overall risk management process. We recognised climate change as a standalone risk in 2020, having been included as a sub-risk within a broader Health, Safety and Environment risk previously. See the TCFD disclosure statement in the [Annual Report](#) for more information.

★ Highlights

Recognition

We were ranked on the CDP Climate Change A list for the fifth consecutive year.

Using our voice to influence

To make Ambition Zero Carbon a reality, we are using our voice to influence the conversation and encourage action. An example is our Gold sponsorship of Climate Week NYC 2020. During the opening ceremony of Climate Week, our CEO signed AstraZeneca onto the [Race for Zero](#).

Reforestation is a nature-based solution to climate change

Launched in 2020, [AZ Forest](#) is a global initiative to plant 50 million trees worldwide by 2025. Trees naturally remove CO₂ and are essential to mitigate the effects of climate change. Reforestation also helps support disease prevention through cleaner air for communities and supports wellbeing with green space for public use. More than 337,000 trees have been planted in Indonesia and Australia.



Pharmaceuticals in the environment

Our work contributes primarily to these Sustainable Development Goals:



SDG 12 | Responsible consumption and production
SDG 17 | Partnership for the goals

Why it matters

We recognise the link between a healthy planet and healthy people, and are committed to the health and safety of both. We must understand and manage pharmaceuticals in the environment (PIE) to ensure that our medicines cause no negative impacts on the environment.

Trace amounts of pharmaceuticals have been detected in the environment for more than 20 years. In most cases this does not cause a problem; however, the presence of some pharmaceutical residues in the environment have been implicated in effects on wildlife. We must determine the risks associated with PIE to ensure the safety of our products throughout their life cycle. If we do not proactively manage these risks, our medicines could pollute the environment. In addition to environmental damage, this could incur reputational damage and financial liabilities. An increased regulatory focus on pharmaceuticals in the environment also has the potential to restrict future patient access to medicines.

Description

Patient excretion, improper disposal of unused medicines and discharges from drug production result in the release of active pharmaceutical ingredients (APIs) into the environment. Potential impacts include effects on wildlife and human health from low-level and/or long-term exposure.

Approach

- **Environmental risk assessments conducted as part of marketing applications for new medicines**
- **Targets for safe discharge of pharmaceuticals**
- **Continual monitoring of environmental data on our medicines**
- **Ongoing research to increase our understanding of potential impacts**

We lead our industry in the management of PIE-related topics. We were the first company to publish targets describing safe discharge limits for drug production and formulation facilities that were externally verified. We were also the first company to publish environmental risk assessment (ERA) [data on our website](#) and we are the only company with a [published approach](#) to ecopharmacovigilance (EPV). EPV ensures that we review emerging information that might change the way we assess and manage the environmental risks of our medicines. Learn more in our [EPV video](#).

In many cases, our APIs are not detected in the environment. When our APIs have been detected, in almost all cases these APIs pose low or insignificant environmental risk. There can be some location-specific environmental risks for particular pharmaceuticals, especially in regions where there may be inadequate sewage treatment and high populations of people discharging waste into rivers with low dilution conditions. Our ongoing EPV monitors whether increases in the global population, an ageing population demographic, increased access to medicines in low- and middle-income countries, urbanisation and/or changes in disease epidemiology will change these risks in the future.

AstraZeneca works in partnership with academic thought leaders to develop new tools and knowledge to help understand the environmental risk that pharmaceuticals pose. We are also committed to supporting the next generation of environmental scientists. In 2020, we co-sponsored seven PhD students in collaboration with United Kingdom Research Innovation, who are conducting research on critical issues that underpin the protection of our natural environment.

Our long-term PIE target and annual KPIs contribute primarily to SDG 12 — Responsible consumption and production, and additionally to SDG 6 — Clean water and sanitation.

Learn more in [Product environmental stewardship](#) and [Environment's impact on health](#).

For more information see our [PIE Position Statement](#).

Key target and progress

2025 target

Lead the industry to manage PIE.



Status: On plan

2020 update

- 75 safe API discharge supplier assessments completed
- 100% of API discharges from AstraZeneca sites demonstrated as safe¹
- 94% of API discharges from globally-managed direct suppliers demonstrated as safe¹
- Co-authored 12 peer-reviewed publications on PIE, including an [article](#) on understanding the risk of pharmaceuticals in developing countries
- EPV programme to monitor product risks post-launch ran through 2020 with no significant risks identified



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

Pharmaceuticals in the environment continued

Sustainability in action

Assessing environmental risks earlier in drug development

The Innovative Medicines Initiative (IMI) is a public-private partnership that works to improve health by speeding up the development of, and patient access to, innovative medicines. The IMI PREMIER (Prioritisation and Risk Evaluation of Medicines in the EnviRonment) project, launched in 2020, provides an opportunity to build partnerships with those who want to ensure the environmental safety of innovative medicines. It is led by AstraZeneca and Radboud University and includes pharmaceutical companies (Bayer, BMS, Eli Lilly and Company, GSK, MSD, Novartis, Roche, Sanofi and Servier), the European Medicines Agency, research institutes (Dutch National Institute for Public Health and the Environment, University of Exeter, EAWAG, Fraunhofer Institute, University of Gothenburg, University of Helsinki, Leuphana University, Mario Negri Institute and the University of York) and Small Medium Enterprises (Ecologic, ECT, Simomics and TEAM IT).

PREMIER aims to deliver an innovative framework for characterising the environmental risks of active pharmaceutical ingredients (APIs), which can be used to:



Develop tools and models to identify potential environmental hazards and risks associated with APIs earlier in drug development



Screen and prioritise legacy APIs authorised for use prior to 2006 for a tailored environmental assessment



Support the development of pharmaceuticals that are less harmful for the environment and promote greener manufacturing



Make environmental data on APIs more visible and accessible to all stakeholders

Learn more about the PREMIER project on our [website](#).

Advocating for science-based policy at the Society of Environmental Toxicology and Chemistry (SETAC)

Many conferences moved to a virtual platform in 2020, a model that we hope will continue into the future, in order to reduce travel-related environmental impacts and increase the accessibility of science more globally.

At the virtual SETAC Europe meeting, AstraZeneca was a strong advocate for science-based policy. The discussion focused around the European Medicines Agency developing revised guidelines for assessing the environmental risk of human medicinal products. We co-chaired a session with representatives from government and academia investigating ways to improve the incorporation of academic research into such assessments. We advocated for a new approach to regulatory environmental toxicology testing of APIs; we proposed that testing protocols for such APIs should be shared in a registered report to: (i) increase transparency; (ii) allow interested parties to comment; and (iii) help avoid duplication of regulatory animal testing.

We also presented our [research](#) on improving environmental protection conveyed in regulatory assessments:

- Review of the environmental risks of more than 120 APIs to groundwater²
- Recommendation, in collaboration with the wider pharmaceutical industry, for use of an exposure trigger for terrestrial environment assessments³
- Proposed alterations of the trigger for fish bioconcentration testing that can deliver animal welfare benefits without compromising environmental protection⁴

Challenges

The continued presence of drug residues in a range of drinking, surface and ground waters as well as soils and sediments is causing concern for the industry. There are increasing regulatory pressures including proposals from the European Parliament and the Organisation for Economic Co-operation and Development (OECD) to include environmental hazard and risk within the approval of new medicinal products. Future product approvals could be considered based on safety, efficacy and environmental risk. Addressing the risks now can improve access to medicines for patients in the future.



PREMIER aims to deliver an innovative framework for characterising the environmental risks of active pharmaceutical ingredients.

Water stewardship

Our work contributes primarily to these Sustainable Development Goals:



SDG 12 | Responsible consumption and production
SDG 17 | Partnership for the goals

Why it matters

Access to water is a fundamental human right.¹ Water not only regulates our bodily functions, making it essential to human health, it also maintains the ecosystems that provide the food and other essential goods and services from which we benefit.² At AstraZeneca, water is needed to develop and manufacture our products, so it makes business sense for us to manage this resource responsibly.

Demand for fresh water is growing rapidly.³ In many areas around the world, water demand exceeds supply, and areas traditionally regarded as water-secure face seasonal shortfalls in meeting the needs of communities, ecosystems and industry.⁴ Around four billion people experience severe water scarcity at least one month of the year.⁵ The World Economic Forum cites water crises as one of the greatest risks society faces over the next 10 years.⁶

\$4.3 return for every dollar invested
in water and sanitation, in the form of reduced health care costs for individuals and society around the world.⁷

Description

Company operations can have adverse impacts on water. In water scarce regions, water quality and availability risks may be more pronounced for local stakeholders and company operations. This also includes the responsible discharge of active pharmaceutical ingredients (APIs) from drug production to aquatic ecosystems. We address water impacts from the production and patient use of our products in [Pharmaceuticals in the environment \(PIE\)](#).

Approach

- **Minimise our impact**
- **Positively contribute to water stewardship where we operate**
- **Uncouple water demand from business growth**

We have initiatives across our operations to reduce our impact and be a positive actor in the river basins where we operate:

- **At AstraZeneca sites:** Uncoupling water demand from business growth with our 2015–2025 water efficiency key performance indicators; developing context-based water targets
- **In drug development:** Adopting process mass intensity (PMI) targets to reduce the water demand of the drugs we develop; conducting life cycle assessments (LCAs) to calculate the water footprint across the whole product life cycle including the raw materials used to make the drug substance. See more in [Product environmental stewardship](#)

- **Maintaining water quality:** Preventing pollution by applying safe discharge limits for APIs produced or formulated by our manufacturing operations. See more in [PIE](#)
- **In our supply chain:** Applying safe discharge limits across our supply chain to prevent pollution from our API suppliers; implementing a [Sustainability Partner Guide and Framework](#)
- **In the communities where we operate:** Supporting river basin-level collective action; developing context-based water targets

To enable us to take a more holistic approach to managing our water risks across our site network, we have updated our methodology to include water scarcity. Based on the [WWF Water Risk Filter tool](#), which identifies and evaluates water risks around the world, this methodology has enabled us to broaden our understanding of our water-related risks and identify areas for investment. We prioritise implementing water efficiency projects and water efficiency audits in water scarce areas. See our [water scarcity map](#) for more information.

Our longer-term ambition is to implement [Science-Based Targets for Water](#), once a global methodology is available. With these targets, we aim to set a high bar on water stewardship for the pharmaceutical industry. This approach aims to ensure that we can more meaningfully contribute to the sustainable management of water resources within river basins.

Key target and progress

2025 target

Maintain absolute water use at 2015 baseline levels.



Status: On plan

2020 update

Water footprint was 3.44 million m³, down from 3.51 million in 2019, a 20% reduction from 2015.



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

Managing water-related risks, such as floods and drought, is a key part of our approach to managing the physical climate risks we face. See the TCFD disclosure statement in the [Annual Report](#) for more information.

Our long-term water target and annual KPIs contribute primarily to SDG 12 — Responsible consumption and production, and additionally to SDG 6 — Clean water and sanitation.

For more information on our approach see our [Water stewardship position paper](#).

Water stewardship continued

Sustainability in action

New collaboration with the World Wide Fund for Nature (WWF) Sweden

We have a shared commitment with the WWF towards taking better care of the natural environment. Freshwater is essential for biodiversity, which along with clean and plentiful water, is fundamental to AstraZeneca's mission to deliver life-changing medicines.

Our twelve-month partnership with WWF focused on identifying opportunities to:

- Improve our water stewardship approach and strategy
- Engage in on-the-ground water projects in the river basins where AstraZeneca operates

The results of this partnership should help us to mitigate the risks specific to our site operations and strengthen our local contribution to water stewardship in the river basins where we operate. Read more on our [website](#).

Broadening scope of water risks

In 2020 we transitioned to using WWF's [Water Risk Filter](#) to complete site water risk assessments. We are leveraging this tool to develop a strategy which broadens the range of water risks we consider, to include physical risks like flooding, access to water and sanitation, and reputational and regulatory risks. Including these parameters alongside our most material water risks — water quality (see [Pharmaceuticals in the environment](#)) and water scarcity — enables a more holistic approach. In 2020 we conducted a high-level screening of basin-level water risks across 250 AstraZeneca sites, which included logistics and IT centres. At risk sites were defined by combining this screening with data on the criticality of our sites delivering medicines to patients. A detailed operational water risk assessment was performed on the priority sites to help us respond to our water risk exposure.

The Water Risk Filter also helps us understand how water risks will change under climate scenarios. Increased risk in areas where scarcity is already a concern highlights the need to improve our water efficiency at these sites and work with other stakeholders in the river basins to improve water stewardship. Based on the water risk assessments performed at identified priority sites, water scarcity projections indicate:

- Low scarcity sites — Taizhou and Wuxi are currently low scarcity sites that are likely to face medium scarcity by 2030
- Medium or high scarcity sites — Water scarcity is expected to become more acute at all sites currently located in areas of medium or high scarcity, comprising 15% of our site network that uses over 10,000m³ of water per year

CDP A list

We are one of only three companies worldwide to have been on the Water Security A list for five consecutive years.

Challenges

Pharmaceutical production requires water of high quality for product manufacture and equipment cleaning. Water scarcity has the potential to cause temporary site shut-downs in our site network or supply chain and delay manufacturing. Climate change projections indicate that these risks will grow in the coming years. In 2020, we conducted a screening study of two future climatic scenarios to explore our physical climate related risks (floods, water scarcity, extreme heat, cyclones and wildfires) across 61 business critical sites. Eight sites were predicted to be exposed to increased risk of severe or very severe climate-related hazards in the next 10 years based on the worst-case scenario. See the AstraZeneca TCFD disclosure statement within our [Annual Report](#) for more details.

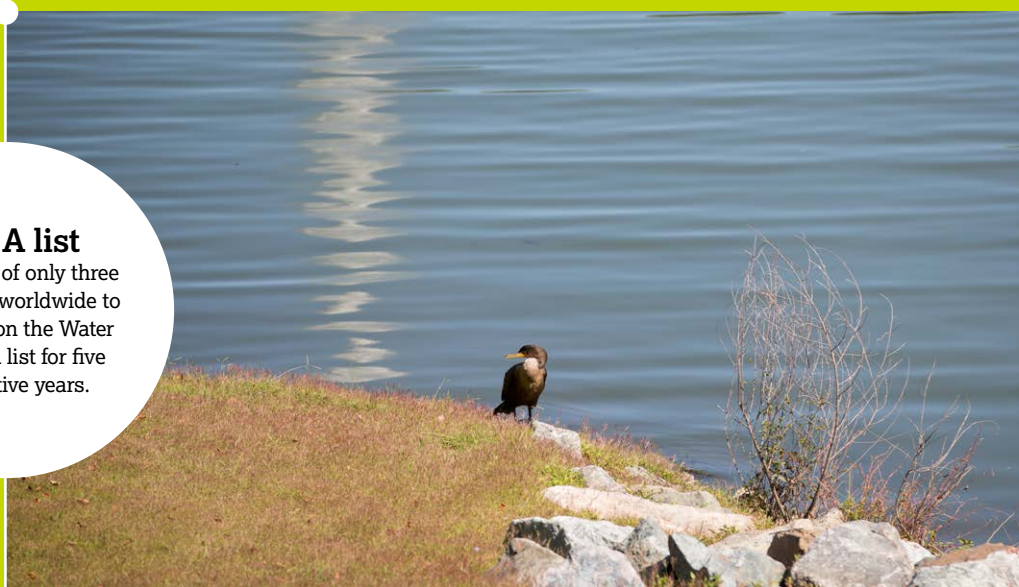
Highlights

Recognition

We were ranked on the CDP Water Security A list for the fifth consecutive year.

Water stewardship position paper

In 2020 we published a [position paper](#) which details our approach and actions.



Water scarcity map

We prioritise implementing water efficiency projects and water efficiency audits in water scarce areas. This map shows the water scarcity rating for AstraZeneca sites that use over 10,000m³ of water per year.

In 2020, AstraZeneca transitioned to using [WWF's Water Risk Filter](#) to complete regular site water risk assessments, which resulted in an update to the ratings.

Sites

- 1 6th of October City, Egypt
- 2 Yelahanka Bangalore, India
- 3 Coppel, United States
- 4 Shanghai Zhangjiang, China
- 5 Boston, United States
- 6 Cambridge, United Kingdom
- 7 Canóvanas, Puerto Rico
- 8 Cotia-São Paulo, Brazil
- 9 Dunkirk, France
- 10 Frederick, United States
- 11 Gaithersburg, United States
- 12 Gothenburg, Sweden
- 13 Liverpool, United Kingdom
- 14 Louisville, United States
- 15 Macclesfield, United Kingdom
- 16 Maihara, Japan
- 17 Mount Vernon, United States
- 18 Newark, United States
- 19 Nijmegen, Netherlands
- 20 North Ryde, Australia
- 21 Philadelphia, United States
- 22 Södertälje, Sweden
- 23 Taizhou, China
- 24 Vorsino, Russia
- 25 West Chester, United States
- 26 Wilmington, United States
- 27 Wuxi, China

West Chester, United States

Purifying water

Purified water generators were optimised to reduce the volume of water rejected from the units when preparing for manufacturing. Optimisations reduced reject flow volumes by 30% without any impact on the quality of purified water. These changes are expected to reduce the site's water footprint by 20% or 34,000m³ a year. This represents a saving of \$50,000 in costs annually.

Newark, United States

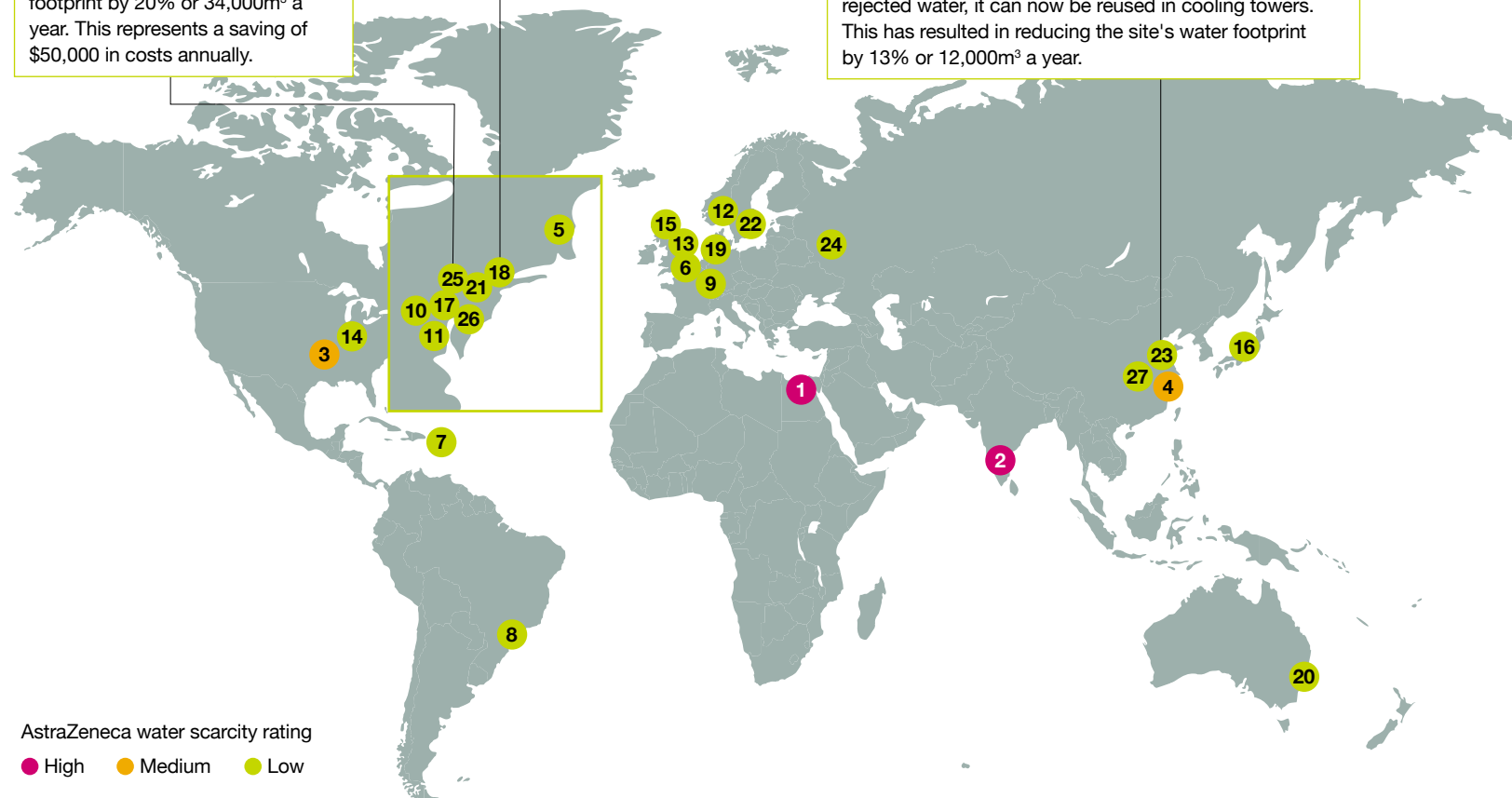
Optimising steam condensate

Upgraded chiller condenser pumps and the installation of metering will help optimise our steam condensate water consumption. These changes are expected to reduce the site's water footprint by 3% or 2,250m³ a year.

Taizhou, China

Improving operational water efficiency

Our NRRGG capital fund invested in a project to reuse water from our purified water and steam generator. The water purification process results in two distinct water types — purified water to be used in our manufacturing processes, and a stream which is rejected. Our team at Taizhou identified that although the rejected water had too many impurities to be used in our manufacturing processes, it could be reused elsewhere on the site. After installing equipment to collect and filter rejected water, it can now be reused in cooling towers. This has resulted in reducing the site's water footprint by 13% or 12,000m³ a year.



Waste management

Why it matters

Waste is accumulating across the world at a rate faster than the Earth is able to digest or humans are able to process. Waste is the result of a linear use of resources — take, make, waste — and has the potential to pollute. This can lead to negative impacts on the health of the planet and people.

Inappropriately disposed waste can cause respiratory diseases and other adverse health effects, as contaminants are absorbed from lungs into other parts of the body.¹ Waste can also contaminate surface water and marine environments, leading to negative impacts for humans and ecosystems. Reduction of waste makes business sense because it increases efficiency, saves us money and reduces human and environmental risks.

We realise that to be successful in the long term, we must embrace movements like the circular economy to balance our environmental footprint to what the Earth can sustainably reproduce and regenerate.

Description

Company operations generate waste, including biological waste and hazardous waste, and we work with specialist third parties to manage its disposal. Waste can have adverse impacts on the environment and human health through pollution.

Approach

We look at waste not only in its end state, but also evaluate how it was produced. We promote a waste hierarchy, focusing on waste prevention and reduction, then prioritising the reuse, recycling, repurposing and safe disposal of the waste materials we produce in distinct ways:

- **In production:** We look for product design (see process mass intensity — PMI) and process innovations to decrease waste by-products created during manufacturing. We use solvent recovery systems to reduce the need for raw materials
- **On-site with employees:** Employees identify waste elimination projects and implement process changes or apply for funding from the Natural Resources Reduction Governance Group (NRRGG)
- **For disposal:** We maximise opportunities to reuse and recycle where possible

We are also exploring circular business models to maximise resource efficiency to a rate the Earth can regenerate and help the global community stay inside the planetary boundaries.

We follow these circular economy principles:

- **Design out waste and pollution:** designing out the negative impacts of economic activity that cause damage to human health and natural systems, including the release of greenhouse gases and hazardous substances, pollution of air, land, and water, as well as structural waste
- **Keep products and materials in use:** favouring activities that preserve value in the form of energy, labour, and materials. This means designing for durability, reuse, remanufacturing, and recycling to keep products, components, and materials circulating in the economy
- **Regenerate natural systems:** avoiding non-renewable resources and preserving or enhancing renewable ones. For example, we know that to achieve our carbon negative value chain target by 2030 it may be necessary to gradually transition from fossil fuels to biological sources for solvents and plastics where possible. We are considering any unintended consequences of this transition, for example there is a risk that producing bioplastics could drive changes in land use, water use and nitrogen and phosphorous demand

In 2020, AstraZeneca became a founding member of the Circular Bioeconomy Alliance and co-authored the 10-point action plan for the circular bioeconomy. In parallel, we developed a roadmap to integrate circularity across our business. To support this process, we ran a virtual ideation event to source ideas on how we can apply a circular mindset across our value chain. The output was a prioritised list of actions for implementation across medicine development, product manufacture, devices, packaging, logistics, facilities and built assets and procurement.

Our work contributes to these Sustainable Development Goals:
SDG 12 | Responsible consumption and production
SDG 17 | Partnership for the goals



Key targets and progress

2025 target

Reduce waste by 10% below the 2015 baseline.



Status: On plan

2020 update

Total waste was 30,262 tonnes, down 11% from 34,173 tonnes in 2019, representing a decrease of 2% from 2015.

2025 target

All of our R&D sites with labs operate Green Labs.



Status: On plan

2020 update

Six of our R&D sites were certified by My Green Lab.



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



Waste management continued

Sustainability in action

Eliminating plastics from packaging

We are eliminating 70 million single-use plastic (SUP) items per year from a respiratory therapy device by removing a plastic packaging sleeve.

This plastic sleeve served regulatory requirements to ensure a user was aware the device had not been tampered with. In response to new regulatory guidance stating that if device packaging has a tamper evident label (TEL) a sleeve is no longer required, we removed this layer of packaging from production in a range of markets, including the EU, US, and China.

Patients are being assured with communication about the sleeve removal and targeted training for healthcare professionals interacting with patients who are prescribed this treatment.

We are eliminating 70 million single-use plastic items

per year from a respiratory therapy device by removing a plastic packaging sleeve.

Expected results:

Improved productivity:



Up to 2.5 million additional products per year can be manufactured by removing the steps to apply the sleeve

Reduction of environmental footprint:



70 million items of single use plastic (SUP), equivalent to 20 tonnes of plastic eliminated per year

Read more about what we're doing to address the environmental footprint of our products in [Product environmental stewardship](#).

From plastic waste to by-product

Our Operations team in Sweden identified an opportunity to turn what was previously viewed as waste into a useful by-product. We use polyethylene plastic to make packaging for one of our respiratory therapy products, but the manufacturing process generates a high proportion of residual plastic. Previously this material was categorised as a waste to be recycled, but in 2020 the team successfully demonstrated to the regulatory authorities that the residual plastic meets the standards required to be classed as a by-product that can be directly used as a raw material. Following shredding on our site, over 1,000 tonnes of plastic a year will now be sold as a high-quality raw material to produce new plastic goods, reducing the need for the production of virgin plastics.

Tackling process waste

The production process at our Coppel site in Texas, US, generates a large volume of high silica waste with a high water content. This waste stream is currently relatively small, but is expected to grow significantly. The site team initiated a project to install two filter pressers to neutralise the waste stream and separate high silica from the treated water. This separation and treatment process will enable us to send the treated wastewater to the local treatment plant for further purification. These changes will cut waste sent to landfill by more than 70%, reducing transportation costs, and diverting up to 5,000 tonnes per year from landfill. The team is looking for opportunities to recycle the residual waste to eliminate the need for disposal to landfill.

Over 1,000 tonnes of plastic a year will now be sold as a high-quality raw material to produce new plastic goods, reducing the need for the production of virgin plastics.



Unused plastic is now classed as a high quality raw material to manufacture new products.

Waste management continued

Sustainability in action

Addressing our environmental footprint in the labs

We want to innovate for patients in sustainable ways, and our activities in the lab, from washing glassware to disposing of gloves, all have an environmental impact. This is the second year we have worked with the not-for-profit organisation, [My Green Lab](#). Through our Green Lab programme and My Green Lab certification process, AstraZeneca scientists learn how to improve our lab practices with respect to waste, energy, water and chemicals. This programme brings to light environmental impacts that were perhaps invisible before, as well as providing a space for scientists to make their own sustainability ideas a reality.

Examples of energy and waste saving activities in 2020 include:



Installing timer plugs for laboratory equipment to shut equipment off after hours



Switching to electronic pipette calibration records across the Cambridge sites, which will save 6,400 sheets of paper each year



The South San Francisco site diverted 240 kg of uncontaminated gloves from landfill, recycled 240 kg of tip boxes and 39 kg of laboratory safety glasses



Scientist at our South San Francisco site adjusting freezer set point in the lab to -70°C.

Our 2020 Green Lab programme progress:



2
quality control labs at our Operations sites piloted the programme



6
of our R&D sites certified gold level or higher by My Green Lab, meaning that each site has implemented at least 60% of recommended sustainable lab best practices



9
sites engaged
• 3 Operations sites
• 6 R&D sites



900+
scientists involved



Winners

Won the Top Organisation Award for the 2020 [Freezer Challenge](#) in the biotech/biopharma category. Through activities like freezer clean outs, maintenance, temperature setbacks from -80°C to -70°C, and upgrades to more energy-efficient models, eight sites saved a combined 1.1 million kWh/year, equivalent to emissions from 90 homes' energy use for one year. Read more in [Nature](#)

Challenges

As our production levels are projected to grow in the future, achieving our total 10% waste reduction target will be a challenge. We have contracted external expertise to support with a waste opportunity assessment programme to help us decouple business growth from waste generation. We also face many barriers to realising circularity. There are very tight regulations for plastics and materials in contact with drug substance or for wastes that have residual active pharmaceutical ingredients.

★ Highlight

Reducing single use plastics in our offices

In 2020 AstraZeneca signed the UK National Health Service (NHS) Plastics Pledge across all our major sites. We set a target to remove 4 million plastic items from our offices and food services. While we reduced over 3.5 million items, the pandemic led to a delay in completing some planned initiatives, such as the removal of single use milk servings. This was in an effort to reduce common touch-points to protect the health of our workforce that was on site, and who continued to deliver medicines to patients throughout the pandemic.

SUP pledges:



End purchase of SUP stirrers and straws by April 2020 — achieved



End purchase of SUP cutlery and plates, and certain cups by April 2021 — in progress



Reduce SUP food containers and other plastic cups and lids by April 2021 — in progress



Ethics and transparency

Equality and prosperity for all fosters healthy societies

Our ambition:
Create positive societal impact and promote ethical behaviour in all markets across our value chain



Our material focus areas



Ethical business culture



Inclusion and diversity



Talent and workforce evolution



Workforce wellbeing and safety



Responsible supply chain



Human rights

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



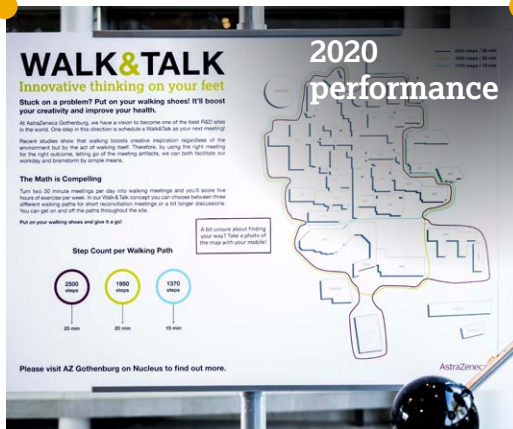
Contributing to the Sustainable Development Goals, a universal blueprint for prosperity for people and the planet, now and into the future.

SDG 3 | Good health and wellbeing

SDG 5 | Gender equality

SDG 8 | Decent work and economic growth

SDG 17 | Partnership for the goals



46.9% women in senior middle management roles and above

49.1 instances of non-compliance with the Code of Ethics per thousand employees in commercial business units

84% of employee survey respondents feel that AstraZeneca has a 'Speak Up' culture

89% of employee survey respondents feel that AstraZeneca is a Great Place to Work

2 countries launched new supplier diversity programmes

Ethics and transparency overview

We believe that people, the planet and business are interconnected. We want to be valued for not only our medicines, but also for the way we work. We aim to build trust by demonstrating integrity, transparency and fair treatment in everything that we do. We have committed to ensure racial equity in our workplace and access to our medicines, in our clinical trials and beyond.

As a global company with more than 75,000 employees operating in more than 100 countries, we work hard to fulfil our responsibilities to our wider value chain, local communities and our own people.

The events of 2020 accelerated and amplified existing inequities, widening the cracks in global economic and industrial systems, and underscoring the importance of AstraZeneca's commitment to address health disparities and promote health equity.

The big picture

Organisations are no longer valued or trusted solely on the quality of products and services, and financial performance. To be trusted, companies need to be transparent about how their operations are impacted by sustainability issues and how their operations impact stakeholders.

Historically, the pharmaceutical industry has faced challenges in building and maintaining its reputation and the trust of its stakeholders. This was as a result of improper sales and marketing practices by some companies, for example in pricing practices, as well as enquiries or investigations by government and regulatory authorities. The industry's response to the COVID-19 pandemic and the quick mobilisation of resources to developing vaccines may help to increase the public's trust. But there remains much work to be done.

Our approach to Ethics and transparency

Our shared [Values](#) underpin all our activities and serve as a compass to guide us in our interactions.



We follow the science



We put patients first



We play to win



We do the right thing



We are entrepreneurial

The behaviours that describe our Values were updated in 2020 to explicitly highlight the importance of inclusion and diversity across our company and in the patient populations we support. See [Inclusion and diversity](#) for more. Our approach goes beyond rules and policies to impact behaviour: we empower our workforce to use their judgement to do the right thing. We have established policies that guide our workforce on how to apply values-based decision making in their day-to-day work — from scientific research in the laboratory to interactions with colleagues, healthcare professionals, patients and supply chain partners.

Governance

Ethics and transparency spans many areas of workforce culture and performance. While every member of the workforce contributes to the delivery of our material focus areas, we govern them each distinctively across several business areas: Human Resources, Operations, Legal, R&D and Global Sustainability. There is often overlap in the scope of focus areas, so we work to collaborate across functions to manage strategy and outcomes. Our unified quarterly scorecard tracks more than 10 Ethics and transparency metrics and communicates our performance to all employees.

We recognise that several of our annual Ethics and transparency measures were impacted by the pandemic and may not reflect a typical trajectory.



Material focus areas

Our approach prioritises six ethics focus areas identified by our [materiality assessment](#):



[Ethical business culture](#)



[Inclusion and diversity](#)



[Talent and workforce evolution](#)



[Workforce wellbeing and safety](#)



[Responsible supply chain](#)



[Human rights](#)



Key accomplishments

- [Ethical business culture](#): Published artificial intelligence ethics principles and governance
- [Inclusion and diversity](#): Committed to racial equity in our workplace and beyond
- [Talent and workforce evolution](#): Launched new performance development approach
- [Workforce wellbeing and safety](#): Shared wellbeing resources for [employees](#) and [leaders](#) during COVID-19
- [Responsible supply chain](#): Launched supplier diversity programmes in two new countries
- [Human rights](#): Identified potential human rights impacts in our supply chain

Ethical business culture

Our work contributes to this Sustainable Development Goal:
SDG 17 | Partnership for the goals



Why it matters

There is a lack of public trust in big corporations.¹ Scepticism is even greater towards companies in the pharmaceutical industry. This trust deficit impacts the ability to attract talent and maintain a healthy, productive workforce and the partnerships necessary for innovation and bringing healthcare solutions to more people.

The reputational, legal, regulatory and long-term sustainability risks make an ethical business culture imperative.



Description

Company Values and norms, practices, standards and principles that guide the actions and behaviour of employees, including the [Code of Ethics](#), and acting in an ethical manner that goes beyond compliance with policies and regulation. This applies across our company's operations and our entire value chain. This issue includes bioethics (including animal welfare), anti-bribery and anti-corruption, data transparency, intellectual property, responsible lobbying, and responsible sales and marketing.

Approach

Our [Code of Ethics](#) serves as our moral compass. Additional requirements at the local and business-unit level complement our Code. We know that setting rules is not enough — which is why we emphasise values-based decision making. We encourage our workforce to adopt a sustainability mindset that embraces our core [Values](#).

We strive to model an ethical business culture by going above and beyond compliance with legal and regulatory requirements. This includes fostering an environment where:

- Employees make it safe for others to speak up
- Employees feel comfortable to speak their minds if they (i) have an idea or innovation to share; (ii) see behaviour that is not aligned with our Values

[Code of Ethics](#)

In today's information-seeking society, our actions add more value by being visible. Transparency supports learning and development for our employees, suppliers and partners. It also meets expectations of patients, investors, and broader society.

On www.astrazeneca.com/sustainability we share supplementary reports, stories and infographics to provide information in a number of formats to suit diverse stakeholder preferences.

Governance

Our Executive Vice-President (EVP) of Human Resources is accountable for our 'Speak Up' culture. Our Chief Medical Officer, who reports to our EVP of Oncology R&D, is accountable for [Bioethics](#) matters. Our EVP, Sustainability and Chief Compliance Officer is accountable for data privacy, sustainability strategy, and safety, health and environment matters, as well as reporting to the Audit Committee on bribery and corruption risk, safeguards and breaches. Our Audit Committee annually reviews our systems to prevent bribery and corruption. Where a breach has been substantiated, we take corrective action, up to and including termination of employment or third-party engagement. We also take steps to prevent recurrence, including enhancements to our controls.

See our [Global Standard](#) on Anti-Bribery and Anti-Corruption.

Key targets and progress

2020 target

Ensure AstraZeneca has a 'Speak Up' culture.



2020 update

- 84% of employee survey respondents feel we have a 'Speak Up' culture, up from 80% in 2019
- 49.1 instances of non-compliance with the Code of Ethics per thousand employees in commercial business units, down from 63.3 in 2019
- 84% of employee survey respondents feel sufficient effort is made to get the diverse opinions and thinking of employees, up from 80% in 2019
- 294 reports received through AstraZeneca helpline from commercial business units, down from 434 in 2019

2025 target

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



2020 update

100% of active employees trained in 2020.



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

Ethical business culture continued

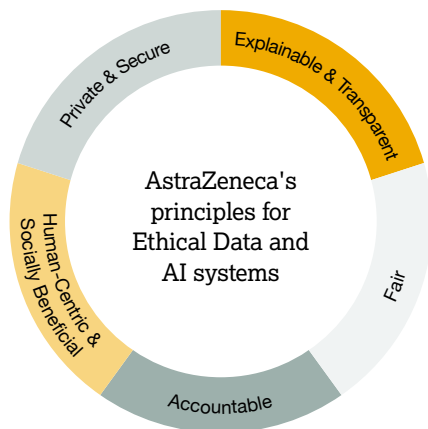
Sustainability in action

Ethics and Artificial Intelligence

Rapid advancements in the field of artificial intelligence (AI) are revolutionising the pharmaceutical industry. At AstraZeneca, these advances have already begun to change the way we work. AI systems can help us:

- Better understand diseases and match patients with the right clinical trials by creating biological insight knowledge graphs
- Automate processes using robotics and improve our supply chain when delivering medicines; helping us to design clinical trials in a faster, smarter way that develops our medicines more efficiently to serve patients' needs
- Provide customised training and support to our employees, to further their career development

Along with excitement and opportunity, AI systems bring new ethical considerations. Algorithms and solutions need to be developed to behave ethically when used for autonomous decision making. For example, mechanisms are needed to ensure algorithms — which are written by humans — do not replicate entrenched human biases related to race, gender, etc. In 2020, we engaged experts inside and outside AstraZeneca to develop principles around data and AI to address this type of ethical issue. We are the first pharmaceutical company to publicly share this type of ethical framework for the use of AI. We will continue to evolve our thinking and approach as these areas mature. Learn more on our [website](#).



Mechanisms are needed to ensure algorithms — which are written by humans — do not replicate entrenched human biases related to race, gender, etc.

"The impact of our AI solutions on health and society is more complex than before, and AI regulations and public expectation are still developing. I am hopeful these principles bring confidence to our patients, partners and ourselves as we learn together how to apply them in practice to our work."

— Margi Sheth,
R&D Data Policy Director and Project Lead

More inclusive case management platform

In 2020, AstraZeneca launched a new ethics case management platform. The platform offers three options — a helpline, an online form and text messaging (US only) — for employees and external stakeholders to speak up about compliance concerns, make a report or raise questions.

As part of our efforts to be inclusive, the new helpline:

- Can be reached from our company's website
- Displays all the information on the same web page, including a new text reporting option (US only)
- Sets expectations with the reporting party regarding next steps, allowing the reporting party to decide if they want to be contacted for further information while protecting their identity
- Is available in 58 languages, up from 38, and 151 countries, up from 123

Challenges

Some risk of ineffectively addressing Ethical business culture is included in — 'Failure to meet regulatory and ethical expectations on commercial practices, including anti-bribery and anti-corruption, and scientific exchanges' — an AstraZeneca principal risk with the potential to have a material impact on our business or results of operations. The risk 'Failure to adhere to applicable laws, rules and regulation' also references aspects of Ethical business culture. Both are described in our [Annual Report](#).

Highlight

Engaging employees on ethics

2020 marked our first celebration of Global Ethics Day. Designed to inspire, challenge and educate, the campaign's theme, Ethics in Action, provided an opportunity to showcase the ethical work underway across all our business areas. Global events included streamed talks on what ethics means at AstraZeneca, highlighting projects with strong innovation and ethics themes, and a live facilitated debate posing ethical questions at work. Posts from 37 countries generated over 59,000 views on our internal social media platform.



Ethical business culture – bioethics

Why it matters

As a science-led company, we are dependent upon biological and medical research. For example, in the case of animals in research, some pharmaceutical regulations require medicines to be tested on animals before they can be considered to be safe for human use. We must consider the associated ethical issues that arise in both the short- and long-term. This careful assessment of our science and the impact on our stakeholders is essential to be able to deliver our life-changing medicines to patients now and in the future.



Rats are the second most commonly used species in research, after mice.

Description

Bioethics refers in the broadest sense to the range of ethical issues that arise from the study and practice of biological and medical science. While there are many discrete subject matter areas within the field of bioethics, at AstraZeneca we see them as an integrated whole, considering our company Values, including putting patients first, following the science and doing the right thing.

Approach

Our Bioethics Advisory Group (BAG) brings together subject matter experts to oversee bioethical issues. The BAG maintains the accuracy and consistency of the [Global Standard: Bioethics](#), provides subject-matter expert advice in response to stakeholder enquiries, and conducts horizon-scanning to anticipate bioethical trends and issues.

The BAG remit was expanded in 2020 to include decisions on exemptions to payments for participants in research and workforce matters, which demonstrates our application of bioethics across AstraZeneca. Our Chief Medical Officer serves as the owner of the Standard and sponsor of the BAG.

The BAG governance activities communicate the importance of bioethical concerns across the business, focusing on these bioethics topics:

-  Animals in research
-  Clinical trials and patient safety
-  Human biological samples
-  Working with genetically modified organisms
-  Precise genome editing
-  Data and artificial intelligence
-  Nagoya protocol
-  Workforce matters

See the [interactive PDF](#) on our website to learn more about the care we take to manage the ethics of research in areas vital to advancing science and developing new treatments.

Governance

Animals in research

Technology has not yet advanced to the stage where all animal use can be fully eliminated from research and development. In addition, some animal studies are required by international regulators before medicines progress to human trials. Animal studies therefore remain a small, but necessary, part of the process of developing new medicines. Animal welfare is a top priority for us and we put the 3Rs (replacement, reduction and refinement of animals in research) at the centre of our approach.

Our Chief Veterinary Officer leads the Council for Science and Animal Welfare (C-SAW), which is the enterprise-wide group overseeing all of our use of animals both within our own facilities and at third party locations where work is conducted on our behalf. The main functions of C-SAW are promoting the 3Rs widely across AstraZeneca, encouraging openness and transparency about our use of animals, and fostering initiatives to promote a culture of care. The C-SAW ensures our governance and oversight mechanisms are robust, and that we are continually working to improve laboratory animal science and welfare.

Human biological samples (HBS)

Our HBS Governance Team oversees our collection, storage, use and disposal of HBS in R&D, including human foetal tissue (hFT) and human embryonic stem cells (hESC). The team also approves or rejects proposals for experiments using hFT and hESC. In the rare case that hFT or hESC are used, an internal review of the scientific validity of the research proposal will be conducted and permission to use the tissue will be granted only when no other scientifically reasonable alternative is available.

In 2020, two additional new research proposals that include use of hFT or cells derived from hFT were approved, one was required to meet regulatory requirement. Four projects using hFT had progressed as at 31 December and three projects are ongoing. An additional three projects using hESC were approved in 2020, resulting in 13 projects using 24 different hESC lines or derived cells having been approved as of 31 December; seven projects are ongoing.



See [Sustainability Data Summary](#) for Animals in research and HBS figures.

Ethical business culture – bioethics continued

Sustainability in action

Advancing COVID-19 efforts through HBS

The use of human biological samples (HBS), such as solid tissue and genomic information (e.g. from DNA, and/or RNA within human tissues and preclinical models), plays a vital role in developing a deeper understanding of human diseases and their underlying mechanisms. For example, HBS can be used to identify new biomarkers, which can predict the likely effectiveness of a potential new medicine and identify some of the possible unwanted effects.

Our processes must ensure that we are doing the right thing and putting the donors' wishes at the forefront of how we manage their precious samples. We also have an ethical responsibility to our staff. In 2020, that included offering COVID-19 screening to support safety in the workplace, which was set up following careful considerations of ethical, legal and logistical requirements.

HBS played a very important role in AstraZeneca's efforts to support the fight against COVID-19 by providing rapid access to samples for:

- Development of potential monoclonal antibodies
- Development and validation of staff screening
- Setup and sample collection for ongoing vaccine trials

See more of our efforts in [COVID-19 actions](#).

Our processes must ensure that we are doing the right thing and putting the donors' wishes at the forefront of how we manage their precious samples. We also have an ethical responsibility to our staff.

Applying bioethics to workforce matters

Ethical issues can arise when employees are provided with opportunities to participate in our scientific activities. We have utilised the expertise of our Bioethics Advisory Group (BAG) to ensure the principles that underpin our approach to bioethics and the content of our Global Standard, such as ensuring appropriate informed consent, protection of personal data and collection of human biological samples, are applied consistently to activities involving our employees. In 2020, the BAG provided guidance on:

- Testing our employees for COVID-19
- Participation of our employees in clinical trials
- Governance decisions in the exception process for payments to participants for involvement in AstraZeneca research

A retrospective of innovation in the care and use of animals

Since 2014, the Council for Science and Animal Welfare (C-SAW) has held an annual global awards programme celebrating excellence in the 3Rs. The competition expanded over the years to include recognition for achievements in openness and transparency, and in building a culture of care. In 2020, in lieu of the annual awards event, which is planned to return in 2021, we looked back on the achievements of the last six years. Highlights include:



The launch of our new 3Rs database. The resource has more than 200 records available to promote the uptake of existing innovations and inspire new advances



Virtual events with previous winners, external experts, and members of the judging panel



Reflections from colleagues across the business on how we live our Values through openness, transparency, and care for animals

Challenges

Scientific and technological developments continue to gather pace, meaning that regulations and governance need constant focus in order to ensure they remain relevant and effective. We encounter new ethical considerations that evolve with our growing pipeline and scope of operations, as illustrated by the COVID-19 guidance requested for testing employees.



Scientists who work on bioethics topics.

Inclusion and diversity

Why it matters

Discrimination and injustices are detrimental to fostering a healthy society, planet and business. As a healthcare company, we are committed to equity in the delivery of healthcare.

By supporting equity, we are addressing unsustainable aspects of healthcare related to race, ethnicity and socioeconomic status:

- Unequal distribution of clinical trial sites relative to population may impede patients' participation in clinical studies and contribute to the low representation of minorities in certain studies¹
- Socioeconomic disparities contribute to challenges of affordability of medicines, proximity to healthcare providers and the privilege to take time off work for treatment
- The lack of workforce diversity in the pharmaceutical industry and healthcare

Inclusion and diversity is good for our workforce and our business. We know that bringing together different thinking is the foundation of our innovation. The unique perspectives of our people give AstraZeneca a competitive advantage as we push the boundaries of science to deliver life-changing medicines to patients. Studies show that diverse management teams drive a 19% increase in revenue² and inclusive companies are 120% more likely to hit financial goals.³

Description

Company efforts to ensure that the workforce, at all levels, reflects and embraces the diversity of the populations in which we operate, as well as different backgrounds, cultures and experiences. This involves going beyond non-discrimination to promoting equity and inclusive behaviour in the workplace and communities where we operate.

Approach

In recent years, we have had 50% representation of men and women in our workforce and we are aiming for the same at management levels, but gender is only one measure of diversity. In 2020, we set the ambition to ensure racial equity in our workplace and access to our medicines, in our clinical trials and beyond.

As a healthcare company, we have an obligation to play our part in dismantling systemic inequities impacting healthcare, including those within our company.


Inclusion and diversity is one of the foundations of our People strategy — driving innovation, engagement and a sense of connection and belonging. We have three priorities for Inclusion and diversity:

- **Empowering inclusive leadership:** We value, seek out and make the most of our differences to achieve our company goals. We contribute to a psychologically safe environment and make decisions transparently. Inclusive leadership is the expected way of working for everyone, at every career level
- **Fostering a culture where people can speak their mind:** We speak our minds and make it safe for others to do so. We challenge behaviours that are not in line with our [Values](#), and welcome and suggest alternative ideas and constructive feedback. We empower decision making at the appropriate level
- **Building and sustaining a diverse leadership and talent pipeline:** We seek to attract, retain and develop diverse talent that reflects and serves our communities and patients. We aim to understand our demographics and take action globally at each stage in the talent pipeline

We are a [founding partner](#) of the World Economic Forum's Partnering for Racial Justice in Business initiative, a coalition of 48 organisations representing 13 industries, with more than 5.5 million employees. It is focused on commitments to eradicate racism in the workplace and set new global standards for racial equity in business. It also provides a platform for businesses to advocate together for inclusive policy change.

Our work contributes to these Sustainable Development Goals:

SDG 5 | Gender equality
SDG 17 | Partnership for the goals



Key target and progress

2025 target

Reach gender equality in management positions.



Status: On plan

2020 update

46.9% of women in senior middle management roles or higher, up from 45.4% in 2019.



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



AZPride meet and greet.

Inclusion and diversity continued

Governance

Inclusion and diversity is a responsibility that starts at the top and spans to every level of our organisation. Our CEO, Pascal Soriot, chairs our Global Inclusion and Diversity Council — a diverse, strategic body of senior and rising leaders that develops and implements our Inclusion and diversity plans.

Board of Directors

Conduct biannual reviews of the AstraZeneca workforce composition, covering a range of metrics, including diversity trends in terms of gender, ethnicity and age

Senior Executive Team (SET)

Review diversity trend metrics at least quarterly, including gender, ethnicity and age

EVP of Human Resources, a SET member who reports to the CEO

Accountable for Inclusion and diversity strategy and delivery of enterprise-wide internal and external targets and KPIs

Functional areas

Set and deliver function-level targets and KPIs aligned with enterprise-wide strategy

Global Inclusion and Diversity Council (Chaired by our CEO and comprised of senior and rising leaders from across AstraZeneca)

Custodians of AstraZeneca's Values and behaviours; approves global signature initiatives; contributes to and reviews functional, site and country plans

Geographic working groups

Deliver site and country plans and global initiatives at a local level

Employee Resource Groups

Connect people across AstraZeneca and provide peer-to-peer support

All employees

Live out our Values and embrace the opportunity to become champions of Inclusion and diversity

Embedding Inclusion and diversity into our behaviours

Our shared Values bind us together and guide us in all that we do, both in the decisions we make and the way we drive our company forward. We have 10 behaviours that provide examples of the way we should live out our Values. These behaviours were updated in 2020 to explicitly highlight the importance of Inclusion and diversity across our company and in the patient populations we support.

We Put Patients First

"I strive to understand *the needs of diverse patient populations* and act accordingly." This highlights our commitment to ensure that everything we do considers the diversity of the communities we serve — from clinical trials through to making our medicines available to all patient populations.

We Play to Win

"I build high performing, *inclusive and diverse* teams that collaborate across the enterprise." This supports our commitment to seeking out and valuing each other's differences, making it safe for people to be themselves and incorporating cultural understanding into the way we work with each other — all with the aim of better serving patients.

We Do the Right Thing

"I speak *my mind and make it safe for others to do so.*" This reflects our commitment to encourage everyone to contribute to a psychologically safe environment by demonstrating an open mind, active listening and transparent decision making. We should all feel safe to speak our minds and challenge behaviours that are not in line with our Values. By encouraging one another to speak our minds, we can unleash our collective potential — to continue to innovate and deliver life-changing medicines to patients.



Inclusion and diversity continued

Sustainability in action

Walking the talk on racial equity

We recognise the urgent need for organisations to step up and put an end to systemic racism. In the wake of the social atrocities highlighted by the Black Lives Matter (BLM) movement and health and economic disparities faced by racial and ethnic minorities during COVID-19, our Global Inclusion and Diversity Council and employee-led dialogues spurred AstraZeneca to act on these issues. Colleagues across the globe shared how challenges related to health inequities, COVID-19 and BLM, are manifesting in their functions and regions. Based on constructive ideation, we initiated new actions to support racial equity:

Talent pipeline

- Understanding and tracking our workforce demographics. This action holds AstraZeneca accountable to ensure our workforce is representative of the communities in which we operate
- Committing to increasing minority representation at career level F and above. We are setting internal targets first in the US and UK, where we have more comprehensive data, to ensure our workforce is representative of demographics in those countries. We launched a [Brand Leadership Institute](#) pilot in the US to support female leaders of colour through a transformational learning experience. The programme seeks to address the barriers to leadership and bridges the gap to create a competitive advantage
- Increasing promotion rates of under-represented demographic groups in part by ensuring diverse candidates and interview panels
- Investing more than \$5 million in early talent programmes to increase minority representation across functional areas over time

Employee resources

- Educating our workforce through a new mandatory conscious inclusion online training
- Updating and socialising an Inclusion and Diversity Standard to make clear our stance on racism, consequences of violation, and paths for remedy
- **Power of Diversity week** — We believe in building an inclusive culture and making the most of our diversity. This strength enables us to push the boundaries of science to deliver life-changing medicines to patients. To celebrate and showcase this, we held our first-ever Power of Diversity week which included a series of global and local activities to discuss the importance of inclusion and diversity, and understand the role all employees play in progressing our priorities. Topics ranged from systemic racism to addressing healthcare disparities and were customised by each site or region to be most applicable to local needs. There were interactive sessions as well as discussions led by senior leaders, setting the tone from the top and sparking honest conversation about inclusion and diversity. To continue the learning, content is accessible to all employees through Degreed, our online learning platform

External actions

- Beyond the actions within our organisation, we also aim to be part of the solution in the world around us by evolving our practices to reflect the diversity of the communities we serve. Our plans include:
- Ensuring our clinical trials represent the diversity of the communities with the relevant disease. See [Responsible R&D](#) for more information
 - Ensuring the patient advocacy groups, key opinion leaders and lead investigators we work with are as diverse as the patients we reach
 - Collaborating with patients to build health equity for minorities, including \$5 million in funding for a US healthcare equities programme
 - Joining the Consortium on Diversity and Equity (CODE), led by the Center for Healthcare Innovation, focused on facilitating a globally diverse biopharmaceutical industry



Employees participate in photos from the Virtual March for Change to commemorate the 1963 March on Washington, DC, US.

Challenges

Some risk of ineffectively addressing Inclusion and diversity is included in — 'Failure to attract, develop, engage and retain a diverse, talented and capable workforce' — an AstraZeneca principal risk with the potential to have a material impact on our business or results of operations, as described in our [Annual Report](#).

Highlights

Supplier diversity programme

We support an inclusive and diverse supply chain through our supplier diversity programme. In 2020, we expanded our programme to South Africa and the United Kingdom, making the programme active in four countries, including the United States and Brazil. See [Responsible supply chain](#) for more.

A Gendered Approach to NCD Prevention

Gender is a key social determinant of health. That's why our [Young Health Programme](#) (YHP) takes a gendered approach, recognising that girls and boys have different levels of exposure and vulnerability to non-communicable disease (NCD) risk factors. Through our programmes with [Plan International](#), 57% of young people reached by the YHP are girls.

Recognition

- Bloomberg Gender Equality Index — One of 380 companies selected
- 2020 Diversity List by Diversity Inc — One of 50 companies selected
- Corporate Equality Index — Earned 100% on the Human Rights Campaign's index, designating AstraZeneca one of the 'Best Places to Work for LGBTQ Equality'
- Mexico Equity certification from the Human Rights Campaign Foundation, which recognises top Mexican LGBTQ+ employers
- Workforce Disclosure Initiative — AstraZeneca disclosed information on key workforce-related topics including pay, contract types and diversity

Talent and workforce evolution



Our work contributes to this Sustainable Development Goal:
SDG 17 | Partnership for the goals

Why it matters

Employment and workplaces are changing due to lasting impacts from the pandemic, shifting worker expectations and technological advances. Investments in our workforce support society more broadly, as we develop the workforce of tomorrow to push the boundaries of science and continue to deliver life-changing medicines for patients.

As an innovation-based company, the continual development of our workforce is imperative for performance and retention, and growth of our organisation. We aim to prepare for and adapt to disruptive workplace and workforce changes by implementing responsible development practices that enable our workforce to reach their full potential. This makes business sense, as the future of our company depends on our people.

Description

Company efforts to foster a life-long learning organisation, form the best teams, facilitate agile ways of working, upskill and reskill current employees, and engage and prepare all employees for digitalisation and automation.

Approach

We strive to provide the work environment and opportunities our 75,600 employees need to thrive. We work to instil in our employees the confidence to challenge convention and explore new possibilities. We invest in our workforce through professional and technical training, and we enhance this through leadership, mentorship and job-rotation programmes. Our People strategy focuses on:

- **Life-long learning** — We recognise that to thrive in a complex and ever-changing world, it is imperative for us to unlock the potential in every one of our employees. We provide a variety of learning experiences to support employees at different stages of their journey at AstraZeneca
- **Upskilling in critical capabilities** — We identify and prioritise critical capabilities across our organisation that are needed to drive our company strategy and meet the challenges of the future
- **Enterprise leadership and talent** — We believe every employee has potential. We focus on identifying succession candidates for critical roles and capabilities, and accelerating readiness and career development for all employees

Our focus on Inclusion and diversity weaves through these efforts.

Governance

Our approach is governed by our EVP, Human Resources, who reports to the CEO. On a biannual basis, the SET and Board are provided with a comprehensive overview of the AstraZeneca workforce, covering a wide range of metrics and measures. The SET is also provided with a quarterly summary of key workforce metrics.



Key targets and progress

2025 target

Build a strong learning and development culture by promoting growth opportunities at all levels of our organisation and ensuring a strong leadership pipeline.



Status: On plan

2020 update

84% of employee survey respondents feel there is opportunity for growth and development, up from 83% in 2019.

2025 target

Ensure AstraZeneca has a highly-engaged workforce and is viewed as a leader in attracting top talent.



Status: On plan

2020 update

89% of employee survey respondents feel that AstraZeneca is a Great Place to Work, up from 86% in 2019.



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

We work to instil in our employees the confidence to challenge convention and explore new possibilities.

Talent and workforce evolution continued

Sustainability in action

Global platform makes learning more accessible

In 2020, we launched Degreed — a new global online learning platform. Degreed is a single point of access to a world of learning. The new platform is personalised — enabling our workforce to guide their own learning, receive personal content recommendations and collaborate with colleagues. Degreed offers access to a vast range of high-quality resources — more than 20,000 multi-lingual on-demand videos, articles, books, podcasts and courses from world-class partners such as LinkedIn Learning and MindTools — alongside our own internal content. We have also launched business area learning academies, supporting our people in developing skills associated with digital and data, procurement, innovative value strategies, and human resources.

- 67% of employees registered
- 500,000 learning modules completed

“We’re delighted to be opening up this dynamic and digital gateway for learning to everyone at a time when the need for agility, innovation and new perspectives is so important and while so many are working remotely. Degreed puts you in the driving seat, with the power to develop the skills you want and to shape the future you aspire to. We’re launching today with thousands of great resources, and creating a globally connected community of AstraZeneca learners.”

— **Marc Howells**, VP Talent & Development

Transforming performance development

Performance development is part of our commitment to our people and plays an important role in creating a culture of growth. Inspired by employee feedback, a new system for performance development was introduced in 2020. We have invested in over 500 virtual workshops and a suite of online toolkits to upskill and build new coaching and feed forward capabilities for our 12,000 line managers. The new system involves a shift away from performance ratings and rankings towards ongoing development and continuous improvement, including:

- **Coaching** — quarterly check-ins with managers to share experiences, ideas and points of view to arrive at agreed outcomes
- **Feeding forward** — forward focused conversations to support development and growth for the future
- **Finding ways for employees to stretch** — in what they do or how they do it

Our new performance development system shifts away from performance ratings and rankings towards ongoing development and continuous improvement.

New learning experiences

We know that to be successful in a complex world we must become a learning organisation, ready and equipped to embrace the challenges that lie ahead. We continually expand our learning and development portfolio to support our employees at different stages of their journey with us. Six new development programmes were launched in 2020, including:

- **Accelerate!** — A face-to-face, online and immersive experience designed to enable leadership talent from our emerging and growth markets to execute their local and regional business strategy while developing their enterprise capability
- **Leadership Labs** — A development experience for career level E/F managers that supports participants to lead their teams and functions to deliver business performance during rapid growth by focusing on building core leadership skills that are highly relevant for ‘the now’
- **Team effectiveness** — A suite of learning experiences to build team effectiveness in support of our strategy and Values, covering topics such as respecting diversity and building trust



Challenges

Aspects of Talent and workforce evolution are captured in our enterprise risk management process. 'Failure to attract, develop, engage and retain a diverse, talented and capable workforce' is a principle risk. This risk has the potential to have a material impact on our business or results of operations, as described in our [Annual Report](#).

Highlights

Internal peer-to-peer recognition platform

CatAlyZe is an online platform that enables all employees, regardless of role, geography or level, to highlight exceptional work based on the way we demonstrate our Values and behaviours. It is used to celebrate the contributions of individuals and teams, and show appreciation in real time.

Developing our talent pipeline through STEM

The global [Generation Health: How Science Powers Us](#) programme was developed to elevate and explain the science underpinning the prevention and treatment of disease by providing hands-on STEM learning activities. Students age 11–13 investigated both preventative measures and innovative solutions to key health concerns in the areas of oncology, cardiovascular and respiratory disease.

Generation Health programming also includes [Drop Anywhere Labs](#), which are custom-outfitted STEM learning spaces built from modified shipping containers. These easy to transport, inexpensive labs provide a range of career and skills education for young school students, as well as flexible in-classroom resources that enable teachers to instruct up to four classes simultaneously.



Workforce wellbeing and safety

Why it matters

To continue to deliver medicines to patients, we have to foster an environment where people feel safe, energised and inspired. This is only possible through a holistic approach that integrates mental, physical and financial health for a complete sense of wellbeing. The resources we put into supporting the health and safety of our workforce are an investment in society and the long-term health of economies.

Wellbeing is associated with numerous health, employment, family and economic benefits.¹ Fostering wellbeing and promoting a safe environment, free of injuries, is not only the right thing to do but can also have positive impacts on business productivity and costs. Depression and anxiety have a significant economic impact, with an estimated cost to the global economy of US\$1 trillion per year in lost productivity.²

\$1 invested
to treat common mental health issues =
\$4 return
in improved health and productivity.²

Description

Company efforts to create a healthy and safe working environment are conducive to a workforce thriving and maintaining good work-life integration. This includes efforts to limit safety hazards for employees through proper design, engineering and preventative maintenance, and embedding a safety, health and environment (SHE) culture across the organisation.

Approach

We strive to ensure our workforce has the resources not only to deal with, but to thrive in challenging circumstances. We take a holistic approach, considering physical, financial and mental wellbeing dimensions at work, in transit and at home:

- Physical wellbeing** — supporting all aspects of physical health, e.g. exercising and managing any conditions or diseases
- Mental wellbeing** — feeling positive, building resilience, achieving balance and a strong sense of community
- Financial wellbeing** — managing finances today while preparing for the future

We investigate safety incidents to understand root causes and make changes to prevent reoccurrence. Learnings are reviewed by a panel of subject matter experts then distributed globally. Our global SHE standards and procedures establish mandatory requirements in key risk areas.

Our [Code of Ethics](#) includes elements relating to workforce wellbeing and safety: we promote and maintain a safe, healthy, secure work environment; we use effective SHE management systems to identify and manage risk and maintain strong SHE performance; we only work with others who embrace SHE standards consistent with ours.

Our 2020 Code of Ethics global mandatory training focused on wellbeing during the pandemic, including personal examples of how our employees have built resilience and grown during challenging times. The training also included an example of how to handle a safety incident by applying Human and Organisational Performance (HOP) principles.

Governance


Workforce wellbeing is governed by our EVP, Human Resources. In 2020, a new Global Director of Wellbeing was appointed to further develop our strategy, enabling a shift from traditional benefits to broader employee wellbeing. Safety is governed by our EVP, Sustainability and Chief Compliance Officer. We use assurance programmes to monitor and manage performance. Some sites seek external review and we achieved ISO 45001 (occupational health) certification at our: Macclesfield, UK, Södertälje, Sweden; and Taipei, Taiwan sites, accounting for more than 8,000 of our employees.



Employees shared examples of resilience and growth for the 2020 Code of Ethics training.


Our work contributes to these Sustainable Development Goals:

- SDG 3** | Good health and wellbeing
- SDG 8** | Decent work and economic growth
- SDG 17** | Partnership for the goals



Key targets and progress


2025 target
Safety: 75% reduction in total injury rate from 2015 baseline.



Status: On plan

2020 update
The injury rate has decreased, bringing our total decrease since 2015 to 64%.


2025 target
Driver safety: 55% reduction in collisions per million kilometres driven from 2015 baseline.



Status: On plan

2020 update
The collision rate has decreased, bringing our total decrease since 2015 to 46%.

2025 target
Healthy workforce: 80% of sites/marketing companies have all four Essential Health Activities in place: healthy eating and drinking, tobacco cessation, physical fitness and workplace pressure management.



Status: Achieved

2020 update
86% of sites promote the four Essential Health Activities.³ This target was achieved in 2020.

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

Workforce wellbeing and safety continued

Sustainability in action

Workforce mental health in times of COVID-19

Our workforce has faced a number of new and exacerbated challenges during the pandemic and we are proud of the mental wellbeing support we have offered.

- **Wellbeing guidance resources** were published not only for AstraZeneca, but also for public use. We shared toolkits for employees and leaders with advice on how to navigate COVID-19 and develop new skills for the future. These toolkits included details on building resilience and positivity, focusing on physical wellbeing through movement and recovery, mental wellbeing through mindset and social contact, and tips for financial wellbeing
- **Flexible working** options were provided, ensuring that employees made work arrangements that took childcare and eldercare responsibilities into account as well as underlying health conditions or the use of public transportation. This flexibility continued to be a core offering for our employees as we encountered the various phases of return to work

- **Employee assistance programmes** were launched in markets like Latin America to provide employees access to mental wellbeing resources. In addition, our largest sites in the US have on-site mental health professionals that employees can speak with confidentially
- **Manager training** was deployed to emphasise the important role managers play in supporting their own mental health and that of their teams during and beyond the pandemic. The course helps participants feel more confident in spotting signs and supporting someone in need by training them on how to point colleagues towards the right mental health care options. This course was offered in addition to general mental health training for managers

Human and Organisational Performance (HOP) in action

We are integrating HOP — a science-based approach to understanding how and why people make mistakes and what organisational improvements can be made — into our business. We applied HOP to a learning team event at our facility in Coppell, Texas, US. An employee, who was using a power washer to clean equipment, was injured when a high-pressure water stream contacted his hand. This was categorised as a potential serious injury or fatality (P-SIF). Traditional safety incident investigations may tell us what happened but learning teams tell us what is happening. A learning team helps identify differences between the way we planned the work (work-as-imagined) and the way that the work actually happens (work-as-done), providing valuable information that can be fed back into our processes to ensure learning and improvement. Based on the learning team output, the site process in Coppell was adjusted.

Creating a culture of safety around warehouses

In 2020, we started a serious injury or fatality (SIF) prevention programme in our warehouses. We reviewed our P-SIF events and found more efforts were needed, in particular for forklift trucks and racking systems. We worked with warehouse managers to share best practices across the sites and conduct training scenarios. We also developed a warehouse minimum standard, which will be a focus area for our audit programme. We believe the combined efforts will reduce our warehouse incidents and thereby protect our workforce, assets and facilities.

We published wellbeing resources not only for AstraZeneca, but also for public use.



Effectively working through COVID-19: Employee Toolkit

Top tips and resources to help you develop the mindset and behaviours to navigate through uncertainty, maintain high performance and develop new skills for the future

Links within this toolkit take you to sites maintained by third parties who are solely responsible for their content. AstraZeneca provides this toolkit as a service to website visitors. AstraZeneca is not responsible for the privacy policy of any third party websites. We encourage you to read the privacy policy of every website you visit.



Employee toolkit emphasising the importance of mental health, including advice on how to navigate COVID-19 and develop new skills for the future.

Challenges

Some Workforce wellbeing and safety risks are included in the risk 'Failure to adhere to applicable laws, rules and regulations'. This risk references occupational health and safety regulation and has the potential to have a material impact on our business or results of operations, as described in our [Annual Report](#).

Highlights

AstraZeneca most active healthcare company in global wellbeing challenge

AstraZeneca employees from 38 countries participated in the 100-day [Virgin Pulse Global Challenge \(VPGC\)](#)® 2020. The online programme includes physical and psychological health risk assessments, step tracking, and modules for nutrition, sleep and mental wellbeing. A team from the US ranked 7th out of 262 companies taking part in the challenge.

Gaithersburg site wins wellness awards


- Silver award for The Healthiest Maryland Businesses (HMB) Wellness at Work awards programme — recognises businesses that have established worksite wellness practices and workplace health improvement plans.
- The Alliance for Workplace Excellence Health & Wellness Seal of Approval — recognises employers that demonstrate an outstanding commitment to their employees' health and wellness and lead the way implementing innovative programmes. Wellness programmes are evaluated based on education and awareness, health and wellness programmes, and health and wellness assessments.



Responsible supply chain

Our work contributes to these Sustainable Development Goals:

- SDG 8** | Decent work and economic growth
- SDG 12** | Responsible consumption and production
- SDG 17** | Partnership for the goals



Why it matters

A large supply chain amplifies business impacts on people and the planet, both the positives and negatives. We are accountable for understanding the impact of our entire supply chain and seek to make a positive impact on workforces, communities and the environment.

We interact with an extensive network of suppliers globally, and this reach gives us the opportunity — and responsibility — to promote practices with our suppliers that are socially and environmentally sustainable. Our business success depends on a resilient, transparent and inclusive supply chain that supports responsible sourcing, development and manufacturing. Embedding sustainability throughout our supply chain through collaboration with our suppliers increases business value for all.

Description

Company processes for sourcing external resources, including building robust supplier relationships with considerations of suppliers' environmental and social practices.

Approach

We support suppliers by:

- Offering opportunities to build their own sustainability knowledge and capabilities
- Holding them to high standards

Throughout the lifetime of our relationship with each supplier, we seek to ensure that their conduct matches the expectations outlined in our Global Standard Expectations of Third Parties. We aim to work only with suppliers whose values are consistent with our own and who are committed to developing inclusive, resilient and transparent businesses.

- Inclusive** — Suppliers create value for all employees and people within their communities
- Resilient** — Suppliers' operations are adaptive to climate change and resource scarcity
- Transparent** — Sustainability practices across our worldwide supply chain are readily verified

Our Sustainability Partner Guide and Framework for our critical manufacturing partners assesses and rewards sustainability performance.

We have prioritised our sustainability approach on categories of suppliers in our product supply chain, including active pharmaceutical ingredients (APIs), formulation and packaging, and devices — and we are continually expanding our focus.



Supply chain colleagues in Japan.

Key targets and progress

2025 target

75% of all critical manufacturing partner sites are rated 'bronze' or better in our Sustainability Partner Guide and Framework.¹

 Status: On plan

2020 update

64% (67 of 105 supplier sites) of critical manufacturing partners achieved 'bronze' or better on our sustainability framework.

2025 target

Launch supplier diversity programmes in 10 new countries (outside of the United States).

 Status: On plan

2020 update

Programme launched in two more countries – South Africa and United Kingdom, bringing total to three countries outside of the US.

2025 target (new target)


Embed sustainability into our end-to-end procurement processes through our Positive Sourcing Programme.²

 Status: On plan

2020 update

- Global Standard updated to incorporate sustainability priorities
- Sustainability included as a required component of all category strategies³
- Sustainability assessment platform EcoVadis piloted across multiple categories, planned to be implemented enterprise wide

Our suppliers contribute to a number of other metrics and initiatives, such as Ambition Zero Carbon and safe API discharges.

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

Responsible supply chain continued

Governance

The Global Operations and Global Sustainability functions have a shared responsibility to execute our Responsible supply chain strategy. Our EVP, Operations and IT, who reports directly to the CEO, has oversight of our supply chain, including our internal and external manufacturing network.

In 2020, we launched a new Operations Sustainability Council. This is chaired by our Vice-President of Global SHE and Operations Sustainability and includes around 20 business leaders from across Operations and Global Sustainability who are key in supporting the delivery of our Responsible supply chain strategy, along with other sustainability goals within Operations. The Council also works closely with our Chief Procurement Officer who oversees the implementation of our Positive Sourcing Programme.

"Our new Operations Sustainability Council is integrating sustainable practices across all areas within our supply and manufacturing organisation that raise the bar on resilience and transparency, ensuring delivery of programmes that further all our Operations goals."

— Vice-President of Global SHE and Operations Sustainability



Operations Sustainability Council members.

● Sustainability in action

Promoting responsible sourcing

Our Positive Sourcing Programme delivers value to our business and society by embedding sustainability into end-to-end procurement processes. We embed responsible sourcing practices by working with suppliers to support their sustainability journeys, innovate together on challenges, and promote supplier diversity.

Supporting suppliers' sustainability journeys

We support our suppliers to establish a foundation in sustainability, scale their efforts through collaborative projects, and deliver impact for a healthier world. This not only enhances supplier capacity, but also helps us achieve our sustainability ambitions. We enhanced our third-party expectations and request for proposal (RFP) guidance to cover sustainability topics such as human rights and labour, health and safety, environment and supplier diversity.

Innovating together on challenges

We committed to launching our next-generation inhaler with near-zero global warming potential (GWP) propellants by 2025 as part of Ambition Zero Carbon. We expect that the propellant used in the next generation pressurised metered-dose inhalers (pMDI) will have a GWP that is 90–99% lower than propellants used in existing pMDIs.

Promoting supplier diversity

We support an inclusive and diverse supply chain through our supplier diversity programme. In 2020, we expanded to South Africa and the United Kingdom, making the programme active in four countries, including the United States and Brazil. We hosted virtual events, with our Chief Procurement Officer actively participating and sharing his commitment to AstraZeneca's supplier diversity efforts. These events included external partners, such as WeConnect International, Minority Supplier Development UK (MSDUK) and Social Enterprise UK, who support our efforts.

The spotlight on the Black Lives Matter movement sparked important conversations about eliminating racism from society. We asked our partners to join the efforts to address inequities. Our Chief Procurement Officer sent a letter to hundreds of key suppliers to explore opportunities to broaden inclusion in our business, workforce and communities.

Our supplier diversity programme is active in Brazil, South Africa, the UK and US.

Advancing sustainability maturity across internal manufacturing

Our supply chain is more than just our external partners — it is made up of 29 internal manufacturing locations. In an effort to further promote sustainability across our manufacturing sites, we developed a common sustainability maturity framework. This framework outlines sustainability excellence over four maturity levels, from foundational to ideal state. It provides a roadmap of practices aimed at enabling sustainable practices and performance. We piloted this maturity model across seven sites in 2020 and plan to extend this approach as we embed responsible supply chain principles into our lean maturity review process.

Transforming our supply chain to achieve Ambition Zero Carbon

In 2020, we announced Ambition Zero Carbon. This includes a 2030 target to have a carbon negative value chain. With 97% of our footprint in our value chain (including logistics and purchased goods and services), reaching our 2030 target will require unprecedented coordination throughout our supply chain planning processes. Through our new Operations strategy, we have embedded sustainability in both our product and supply chain design approach, including additional life cycle assessments across our portfolio. See more in Product environmental stewardship.

Responsible supply chain continued

Sustainability in action

Sourcing raw materials from nature

Our medicines are created from many raw materials that come from nature and from some areas in the world with environmental and human rights issues. We recognise the importance of understanding the sustainability impacts of these sourcing activities. In 2020, we began to build a framework to drive change for materials of natural origin — including agriculture, aquaculture, forestry, fishery, and mining — used in our supply chain.

Through the Pharmaceutical Supply Chain Initiative (PSCI), we worked to understand our collective human rights and environmental impacts as a pharmaceutical industry. This research informed PSCI members of existing certification schemes from reputable non-governmental organisations to help ensure that our purchases come from well-managed and responsible sources based on supply chain transparency and credible verification. As a result of this engagement, we set a target to have sustainability action plans in place for 12 key raw materials by 2025.

AstraZeneca's action plan includes the following materials in our approach:

Key:

- Raw materials
- ⊕ Our approach

Paper Packaging

- Timber
- ⊕ Forest Stewardship Council
- ⊕ Sustainable Forestry Initiative
- ⊕ Programme for the Endorsement of Forest Certification

Packaging components

- Natural Rubber
- ⊕ Forest Stewardship Council Certification
- Aluminium
- ⊕ Aluminium Stewardship Initiative



Potential use in products

- | | | | |
|--|--|---|---|
| <ul style="list-style-type: none"> ➤ Palm Oil ⊕ Roundtable on Sustainable Palm Oil | <ul style="list-style-type: none"> ➤ Shellac ⊕ Human rights impact assessments | <ul style="list-style-type: none"> ➤ Carnauba Wax ⊕ Initiative for Responsible Carnauba (IRC) | <ul style="list-style-type: none"> ➤ Castor Oil ⊕ Sustainable Castor Association SuCESSCode |
| <ul style="list-style-type: none"> ➤ Fish Oil ⊕ Marine Stewardship Council Certification | <ul style="list-style-type: none"> ➤ Talc ⊕ Human rights impact assessments | <ul style="list-style-type: none"> ➤ Cellulose ⊕ Forest Stewardship Council Certification | <ul style="list-style-type: none"> ➤ Tin, Tungsten, Tantalum, Gold and other minerals ⊕ Minerals Traceability Programme |
| | | <ul style="list-style-type: none"> ➤ Sugar ⊕ Bonsucro Certification | |

Challenges

Aspects of Responsible supply chain are implicated in at least three areas of our enterprise risk management process, as described in our [Annual Report](#). The following are AstraZeneca principal risks with the potential to have a material impact on our business or results of operations: 'Failure or delay in the delivery of our pipeline or launch of new products'; 'Failure to maintain supply of compliant, quality products'; and 'Reliance on third party goods and services'.

Highlights

CDP Supplier Engagement Leader Board

AstraZeneca was among the top 7% of companies assessed by CDP to be awarded a position on the leader board. We are recognised for our actions to lower climate-related risks in the supply chain and working with our suppliers to reduce their emissions.

Recognition

- 2020 HubZone Prime Contractor National Award for supporting US small businesses in economically underutilised areas
- 2020 Corporate Done Deal Award by Women Business Enterprise Center for achieving the highest certified women-owned business spend in the US PA-DE-NJ region
- 2020 Corporate Champion Award by Women Presidents Educational Organization for having highest spend with women-owned businesses in the US Washington, DC region



Human rights



Our work contributes to this Sustainable Development Goal:
SDG 17 | Partnership for the goals

Why it matters

All human beings have basic rights and freedoms — such as the right to health, bodily integrity such as freedom from slavery, and civil liberties such as the right to privacy. For societies and economies to thrive, it is important that human rights are respected.

As a business, upholding human rights is foundational to our ability to retain talent, our social acceptance to operate and the delivery of other sustainability focus areas such as [Disease prevention and treatment](#), [Ethical business culture](#), [Inclusion and diversity](#), [Workforce wellbeing and safety](#) and [Responsible supply chain](#).



AstraZeneca's Human Rights Statement applies to our employees, extended workforce, supply chain, patients and community members.

Description

Company efforts to uphold rights inherent to all human beings. These rights are interrelated, as stated in the [Universal Declaration of Human Rights](#). This includes the rights to health, non-discrimination, humane treatment and data privacy.

Approach

As a healthcare company, we believe health is a human right and therefore enabling access to our medicines is vital. Beyond our core business of health, it is our responsibility to understand how we are contributing to or hindering human rights due to our operations. This includes taking action on both basic and emerging issues such as modern slavery, workforce treatment, labour rights and data privacy. We aim to prevent human rights violations by proactively identifying any issues in our business and responding promptly with appropriate action.

As signatories to the UN Global Compact (UNGC) for the past 10 years, we commit to the [Guiding Principles](#) to respect human rights by acting with due diligence to avoid infringing on human rights and to address negative impacts. We are also committed to the International Labour Organization (ILO) [standards](#) on child labour and minimum working age.

We have internal policies, statements and procedures that build upon these external commitments:

- [Human Rights Statement](#);
- [Modern Slavery Act Statement](#);
- [Conflict Minerals Statement](#);
- [Code of Ethics](#);
- [Data Privacy Standard](#).

"We have ensured that the UNGC and its Ten Principles have become part of our strategy, culture and day-to-day operations, and they will remain vitally important in the years ahead."

— **Pascal Soriot**, AstraZeneca CEO in a [recommitment letter to the UNGC](#)

We address discrimination dimensions of human rights, including setting an enterprise-wide ambition in 2020 to ensure racial equity in our workplace and access to our medicines, in our clinical trials and beyond. See more actions in [Inclusion and diversity](#).

Governance

Accountability for human rights is held by all SET members who each report to the CEO. Our Board of Director's Audit Committee annually reviews our modern slavery approach and the company's risk management strategy. This includes risk awareness and education, and control enhancements to support assurance that the risk of modern slavery and human trafficking is eliminated, to the fullest extent practicable, from AstraZeneca's supply chain. Our Operations Sustainability Council works to develop new approaches to understand, monitor and mitigate identified human rights risks.

Key target and progress

2020 target

Improve the AstraZeneca global biannual human rights survey by using Fair Wage Network data to more robustly assess our performance against local living wage data.



Status: Achieved

2020 update

We enhanced the 2020 survey with terminology definitions, risk awareness questions on modern slavery and human trafficking and a supplemental appendix with expanded indicators. This facilitated clarity of the inquiry and ability to identify specific gaps. We used independently produced data from the Fair Wage database in our 2020 survey to measure against the real earnings of all our employees, in which we performed well.



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

Human rights continued

Sustainability in action

Human rights survey

We conduct an internal assessment of our human rights practices every two years. In 2020, we completed our fifth global human rights labour review which focuses on the International Labour Organization's (ILO) core themes, including freedom of association and collective bargaining, child labour, discrimination, working hours and wages. The digital survey was distributed to the Human Resources representative at more than 100 AstraZeneca sites worldwide. We enhanced the survey by adding terminology definitions and three new indicators covering local leadership's awareness of human rights considerations including modern slavery, risk assessment of temporary labour agencies, and mitigation resources.

Where local gaps to ILO minimum standards are identified, such as maternity leave or grievance procedures, we put in place plans to close those gaps where allowed by relevant national legislation. Based on the last report, we have increased paid maternity leave up to the minimum standard of 14 paid weeks in Mexico, Malaysia, Thailand, Saudi Arabia and Egypt.

Identifying human rights impacts in our supply chain

In 2020, we participated in a Pharmaceutical Supply Chain Initiative (PSCI) project to map human rights impacts in our supply chain for 12 key raw materials. PSCI analysed risk areas including labour rights, land rights, child labour, forced labour, gender rights and the environment. As a result of this project, AstraZeneca and other pharmaceutical companies now have a common understanding of high-risk activities, such as harvesting, cultivation, and mining, and corresponding mitigation strategies

in deeper tiers of the supply chain. This information is being used to create sustainability action plans for 12 key raw materials, such as carnauba wax. See more in [Responsible supply chain](#).

Progressing work on the right to data privacy

Personal data privacy is a human right. Our information is one of our greatest assets. It includes everything that we create and store during the course of our business activities, and it flows through everything we do: our science, the way that we do business, and our ability to deliver life-changing medicines.

We conduct Privacy Impact Assessments (PIAs) for personal data processes which go beyond what is legally required. In 2020, we conducted 1,884 PIAs, up from 1,394 in 2019. We also measure the number of data subject requests we receive to monitor compliance with Data Subject Rights requirements. In 2020, privacy concerns increased as more of the AstraZeneca workforce was engaging virtually due to the pandemic. As part of our work on enhancements to manage and protect our data and information, we have updated our Information Incident Form and are introducing a new Information Incident Module to improve the user experience. In addition, we introduced an automated routing and notification process to ensure reported Information Incidents are investigated by the right people at the right time.

Highlights

Partnerships to support rights holders

- Workforce: Slave-Free Alliance of Hope for Justice — the first life sciences industry member
- Suppliers and partners: PSCI Human Rights and Labour group
- For patients: International Association of Privacy Professionals, the Data Protection Working Group of the European Federation of Pharmaceutical Industries and Associations and Data Protection Legal for the biopharmaceutical sector

Modern slavery and human trafficking training

We provide training that aligns our day-to-day practices with our 'Speak Up' culture of identifying, preventing and reporting concerns. In 2020, we launched a modern day slavery training for employees and third-parties

Challenges

Aspects of Human rights are implicated in our risk 'Failure to adhere to applicable laws, rules and regulations' as described in our [Annual Report](#). Compliance with human rights regulations including, but not limited to, the Modern Slavery Act are specifically noted within this risk. The risk 'Failure to collect and manage data in line with legal and regulatory requirements and strategic objectives' captures risk associated with evolving data privacy legislation.

Through engagements with external regulators and experts we have validated that our highest Modern Slavery Act risk activities are construction, sourcing of human biological samples, electronic components and agricultural ingredients that are used to manufacture our products, temporary resources, recruitment, facilities, logistics and hotels.



Notices

Footnotes

2020 performance highlights

- 1 Includes four Access to healthcare programmes: Healthy Heart Africa, Healthy Lung, Phakamisa and Young Health Programme
- 2 Scope is 48 APIs for which data is available to calculate safe API discharge limits and based on 2019 manufacture.

Contribution to the SDGs

- 1 We also consider SDGs where we have additional or secondary impact. These include SDG 6 - Clean water and sanitation and SDG 15 - Life on land. Our impact on these SDGs is reflected in our reporting on SDG 12.
- 2 <https://www.gavi.org/vaccineswork/5-reasons-why-pandemics-like-covid-19-are-becoming-more-likely>
- 3 <https://www.ncbi.nlm.nih.gov/pmc/articles/PMC7190114/>
- 4 <https://www.who.int/news-room/fact-sheets/detail/noncommunicable-diseases>
- 5 http://www3.weforum.org/docs/WEF_GGGR_2018.pdf
- 6 <https://www.weforum.org/projects/closing-the-gender-gap-accelerators>
- 7 <https://sdgcompass.org/sdgs/sdg-8/>
- 8 <https://unstats.un.org/sdgs/report/2019/goal-12/>
- 9 <https://essd.copernicus.org/articles/12/3269/2020/>
- 10 Includes four Access to healthcare programmes: Healthy Heart Africa, Healthy Lung, Phakamisa and Young Health Programme.
- 11 Select United Nations-related engagements shown. This is a sub-set of AstraZeneca's partnerships for the goals.
- 12 Scope is 48 APIs for which data is available to calculate safe API discharge limits and based on 2019 manufacture.

Access to healthcare

- 1 Includes four Access to healthcare programmes: Healthy Heart Africa, Healthy Lung, Phakamisa and Young Health Programme.

Disease prevention and treatment

- 1 <https://ncdalliance.org/why-ncds/NCDs>
- 2 <https://www.who.int/global-coordination-mechanism/ncd-themes/NCD-and-women/en/>
- 3 <https://www.who.int/news-room/fact-sheets/detail/noncommunicable-diseases>
- 4 <http://files.kff.org/attachment/fact-sheet-The-US-Government-and-Global-Non-Communicable-Disease-Efforts>
- 4 <https://www.mckinsey.com/featured-insights/employment-and-growth/howadvancing-womens-equality-can-add-12-trillion-to-global-growth>
- 5 <https://publicpolicy.stanford.edu/news/non-communicable-disease-could-cost-47-trillion-2030>
- 6 https://www.diabetessatlas.org/upload/resources/material/20200302_133351_IDFATLAS9e-final-web.pdf
- 7 <https://pubmed.ncbi.nlm.nih.gov/32363737/>

Responsible research and development

- 1 <https://www.who.int/news-room/fact-sheets/detail/the-top-10-causes-of-death>
- 2 https://www.who.int/docs/default-source/documents/g4dhdad2a9f352b0445bafbc79ca799dce4d.pdf?sfvrsn=f112ede5_38

Environment's impact on health

- 1 <https://www.who.int/data/gho/data/themes/public-health-and-environment#:~:text=Mortality%20and%20burden%20of%20disease,to%20the%20environment%20is%2023%25>
- 2 <https://www.worldbank.org/en/programs/pollution-management-and-environmental-health-program>
- 3 <https://www.bmj.com/content/368/bmj.l6758>
- 4 <https://www.who.int/health-topics/air-pollution>
- 5 <https://www.ncbi.nlm.nih.gov/pmc/articles/PMC7340393/>
- 6 <https://www.who.int/global-coordination-mechanism/ncd-themes/ncd-and-youth/en/>
- 7 <https://www.who.int/health-topics/antimicrobial-resistance>

Investments in health systems

- 1 <https://globalheartjournal.com/articles/10.5334/gh.403/>
- 2 <http://www.globalasthma-report.org/Global%20Asthma%20Report%202018.pdf>
- 3 www.cancer.net/cancer-types/lung-cancer-non-small-cell/statistics

Affordability

- 1 Since 2019, we have refined our approach from innovative value strategies (IVS) to value-based agreements (VBA).

Environmental protection

- 1 Scope is 48 APIs for which data is available to calculate safe API discharge limits and based on 2019 manufacture.

Environmental protection overview

- 1 <https://www.sciencedirect.com/science/article/pii/S0140673617323450?via%3Dihub>
- 2 https://www.unglobalcompact.org/docs/publications/2019_HealthReport_Web.pdf
- 3 <https://www.nature.com/articles/d41586-020-02341-1>
- 4 Additional parts of our EMS include: Clear responsibilities for leaders and line managers; Global targets implemented locally at sites in partnership across functions; Mandatory training aligned to existing environmental risks; Reporting system for non-conformities, accidents and incidents.

Product environmental stewardship

- 1 https://thorax.bmj.com/content/76/Suppl_1/A19.1
- 2 <https://europepmc.org/article/med/32720299>
- 3 <https://doi.org/10.1183/13993003.01872-2019>

Greenhouse gas reduction

- 1 [https://www.thelancet.com/journals/lancet/article/PIIS0140-6736\(17\)32464-9/supplemental](https://www.thelancet.com/journals/lancet/article/PIIS0140-6736(17)32464-9/supplemental)
- 2 https://www.ripublication.com/jaerspl2018/jaerv13n1spl_08.pdf
- 3 <https://www.ima.net/document-download/51806>
- 4 0.1% of imported electricity could not be matched to renewables due to the lack of credible energy attribute certificate systems in two site locations: Argentina and Ukraine.

Pharmaceuticals in the environment

- 1 Scope is 48 APIs for which data is available to calculate safe API discharge limits and based on 2019 manufacture.
- 2 Maynard *et al.*, 2020a. Abstract 4.09P.2. Available at: [via https://dublin.setac.org/wp-content/uploads/2020/04/SETAC-SciCon-Abstract-book_v2.pdf](https://dublin.setac.org/wp-content/uploads/2020/04/SETAC-SciCon-Abstract-book_v2.pdf)
- 3 Maynard *et al.*, 2020b. Abstract 4.09PC.2. Available at: https://dublin.setac.org/wp-content/uploads/2020/04/SETAC-SciCon-Abstract-book_v2.pdf
- 4 Constantine *et al.*, 2020. Abstract 4.09P.22. Available at: https://dublin.setac.org/wp-content/uploads/2020/04/SETAC-SciCon-Abstract-book_v2.pdf

Water stewardship

- 1 <http://www.refworld.org/pdfid/453883d11.pdf>
- 2 <https://www.who.int/globalchange/ecosystems/water/en/>
- 3 <http://www.worldometers.info/water/>
- 4 www.wri.org/applications/aqueduct/water-risk-atlas/
- 5 <http://advances.sciencemag.org/content/2/2/e1500323>
- 6 http://www3.weforum.org/docs/WEF_GRR18_Report.pdf
- 7 https://www.who.int/water_sanitation_health/publications/glaas_report_2014/en/

Waste management

- 1 http://www.euro.who.int/__data/assets/pdf_file/0003/317226/Waste-human-health-Evidence-needs-mtg-report.pdf?ua=1

Ethical business culture

- 1 <https://www.edelman.com/trust/2020-trust-barometer>

Inclusion and diversity

- 1 <https://jamanetwork.com/journals/jamanetworkopen/fullarticle/2762014>
- 2 <https://www.bcg.com/en-us/publications/2018/how-diverse-leadership-teams-boost-innovation.aspx>
- 3 <https://builtin.com/diversity-inclusion/diversity-in-the-workplace-statistics>

Workforce wellbeing and safety

- 1 <https://www.cdc.gov/hrqo/wellbeing.htm#>
- 2 https://www.who.int/mental_health_in_the_workplace/en/
- 3 For sites that did not respond to the 2020 survey, the responses from previous years were used.

Responsible supply chain

- 1 Target applies to suppliers in the Active Pharmaceutical Ingredient (API) and Formulation and Packaging (F&P), and Device categories. All suppliers are in scope for the framework; however, suppliers are only in scope for PSCI environmental sustainability assessments if they cover >90% of our spend per the Sustainability Partner Guide and Framework.
- 2 Updated target: The foundation of our Positive Sourcing Programme includes monitoring business risk and sustainability practices. In 2020, we began a transformation of our 3PRM process to include sustainability criteria. Our former 3PRM target has evolved with our Positive Sourcing Programme targets.
- 3 Categories refer to an area where procurement focuses, for example; primary packaging, excipients, process chemicals, media, clinical trials. A category strategy sets the vision of where a category will be in the short to medium term.

Cautionary statements regarding forward-looking statements

In order, among other things, to utilise the 'safe harbor' provisions of the US Private Securities Litigation Reform Act of 1995 and the UK Companies Act 2006, we are providing the following cautionary statement:

This Sustainability Report contains certain forward-looking statements with respect to the operations, performance and financial condition of the Group. Forward-looking statements are statements relating to the future which are based on information available at the time such statements are made, including information relating to risks and uncertainties. Although we believe that the forward-looking statements in this Sustainability Report are based on reasonable assumptions, the matters discussed in the forward-looking statements may be influenced by factors that could cause actual outcomes and results to be materially different from those expressed or implied by these statements. The forward-looking statements reflect knowledge and information available at the date of the preparation of this Sustainability Report and the Company undertakes no obligation to update these forward-looking statements. We identify the forward-looking statements by using the words 'anticipates', 'believes', 'expects', 'intends', 'aims', 'aspires', 'seeks', 'estimate', 'will', 'project', 'plan', 'target' and similar expressions in such statements. Important factors that could cause actual results to differ materially from those contained in forward-looking statements, certain of which are beyond our control, include, among other things, those factors identified as risks and challenges.



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