

# Sustainability Report 2019





# About this report

## This report

This is our fifth annual sustainability report, and it describes our progress and challenges from 1 January 2019 to 31 December 2019. The content of this report is based on those sustainability issues 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 webpages](#): cover additional topics of interest to our stakeholders.
- [AstraZeneca Sustainability Data Summary](#): provides performance measures and targets with at least three years of data where available.
- [Infographics](#): show our processes and practices.
- [Policies and company standards](#): state our position and guidance on key subjects.
- [2019 Annual Report and Form 20-F](#): includes how sustainability is integrated across our business model and into risk management.
- [Website](#): contains expanded discussions on emerging topics and material focus areas.

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## Assurance

We seek external review of our performance to validate that we use the same rigour and accuracy as we do with regulated reporting. Bureau Veritas has provided independent external assurance to a limited level for the sustainability key performance indicators shown in the [Sustainability Data Summary](#) as described in the [sustainability letter of assurance](#). Assurance was also provided for select sustainability information in the [2019 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.



Share your ideas and feedback at [sustainability@astrazeneca.com](mailto:sustainability@astrazeneca.com)



### Antibody-Drug Conjugates (ADCs)

ADCs are among the most exciting technologies for the treatment of cancer. AstraZeneca is developing novel ADC targets that include therapy-resistant tumours and cancer stem cells. We are building a library of payloads, and using our antibody engineering expertise for site-specific conjugation and next-generation ADCs.

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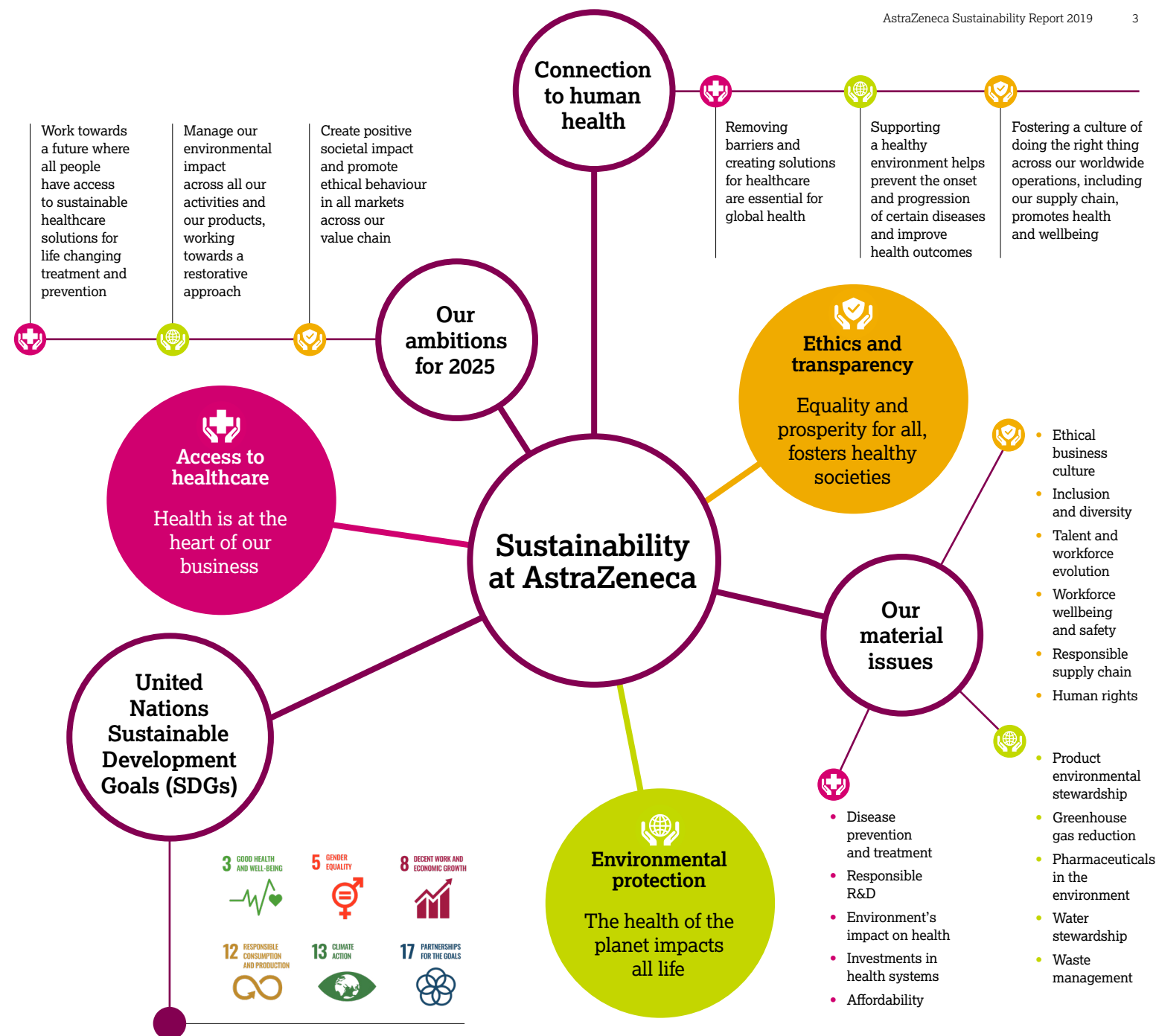
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# We lead with health

At AstraZeneca, health is our business and our contribution to society. How we operate supports sustainable ecosystems for healthcare that benefit people and our planet through science-based innovation.

Our aspiration is for the future to be healthy and for us to be an active participant in a healthy society, planet and business. Our pioneering medicines touch the lives of millions of people, so it is a business imperative that we are partners and advocates for solutions to global health. At the heart of our sustainability approach is access to healthcare and its connection to environmental protection and ethics and transparency.







# Our approach

**Sustainability at AstraZeneca is about using our capabilities to make the most meaningful impact where society needs it – health.**

We work hard to develop medicines to save lives, foster inclusive workplaces and catalyse positive impact throughout our operations and supply chain. We believe there is a strong connection between the health of our patients, our business, our workforce, our communities and the planet, and each of these impact one another.

In our complex world, a siloed approach to sustainability is no longer an option. We see partnerships and transparency as enablers of a sustainable future. We seek to engage with stakeholders across the healthcare network and with problem solvers outside of healthcare. Our approach includes becoming more transparent in our material areas to support responsible, ethical management across the value chain, performance measurement, and knowledge sharing for our sector.

Our approach to sustainability has three interdependent and cooperative priorities:



Access to healthcare



Environmental protection



Ethics and transparency

## Sustainability integration

Partnership, collaboration and transparency start with our own workforce. Within our business we have practices to integrate sustainable thinking into processes.



### Operating model

Sustainability is a core part of our company strategy. Being a Great Place to Work is one of our three strategic priorities for the company. Its success includes delivering sustainability targets for our material focus areas. These targets are a part of the company's global scorecard that sets the course for business and are the responsibility of every employee to achieve.



### Workforce training

Newly hired employees take an orientation module that includes an introduction to our sustainability approach. We incorporate sustainability education into our leadership and management development programmes. Our leaders are also engaged with sustainability at key strategic events, like our annual Senior Leaders Meeting.



### Financial reporting

We incorporate sustainability-related occurrences into publicly released quarterly results for investors. We have a dedicated Environmental, Social and Governance (ESG) investor relations representative and engaged in investor dialogue events throughout 2019.



### 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.



### 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. Annual training on the Code is mandatory for all employees. Sustainability is featured as one of four high-level Global Policies in the Code of Ethics.

For updates on our progress for metrics, see the [Sustainability Data Summary](#).

Healthy planet

Why we care

Healthy people

Healthy business





# 2019 performance review

AstraZeneca Sustainability Report 2019

5

## Sustainability strategy

Lead with health to support healthy people, a prospering planet and an ethical business culture



9

members govern sustainability on our Sustainability Advisory Board – composed of external experts and internal Senior Executive Team members

1 of 3

Sustainability is a component of Great Place to Work, one of the three company strategic priorities

45+

performance metrics measured quarterly in the company scorecard

## Access to healthcare

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



81,000+

healthcare workers trained (cumulative)

19.8m+

people reached through our access programmes (cumulative)

9.7m+

million people reached through our Patient Assistance Programmes (cumulative)

UNGC

Patron sponsor of the United Nations Global Compact (UNGC) action platform: Business Ambition for Climate and Health

## Environmental protection

Manage our environmental impact across all our activities and products, towards a restorative approach



0

We commit to zero carbon emissions by 2025 and a carbon negative value chain by 2030

11%

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

11%

increase in our waste since 2015

62%

of our total electricity use is sourced or generated from renewable sources

18%

reduction in our water use since 2015

97%

of active pharmaceutical ingredient discharges from direct suppliers demonstrated as safe<sup>1</sup>

## Ethics and transparency

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



45.4%

women in senior middle management roles or higher

63.3

instances of non-compliance with the Code of Ethics per thousand employees in commercial regions

86%

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

96

countries disclosing data points on new online, interactive Sustainability Transparency Map of site operations, suppliers, Access to healthcare programmes, and demographics

89

manufacturing partners with 131 sites were evaluated for overall sustainability performance using our [Supplier Sustainability Framework](#)



# About us

## Our purpose:

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

We are a global, science-led biopharmaceutical 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 eliminate cancer as a cause of death through scientific discovery and collaborations.

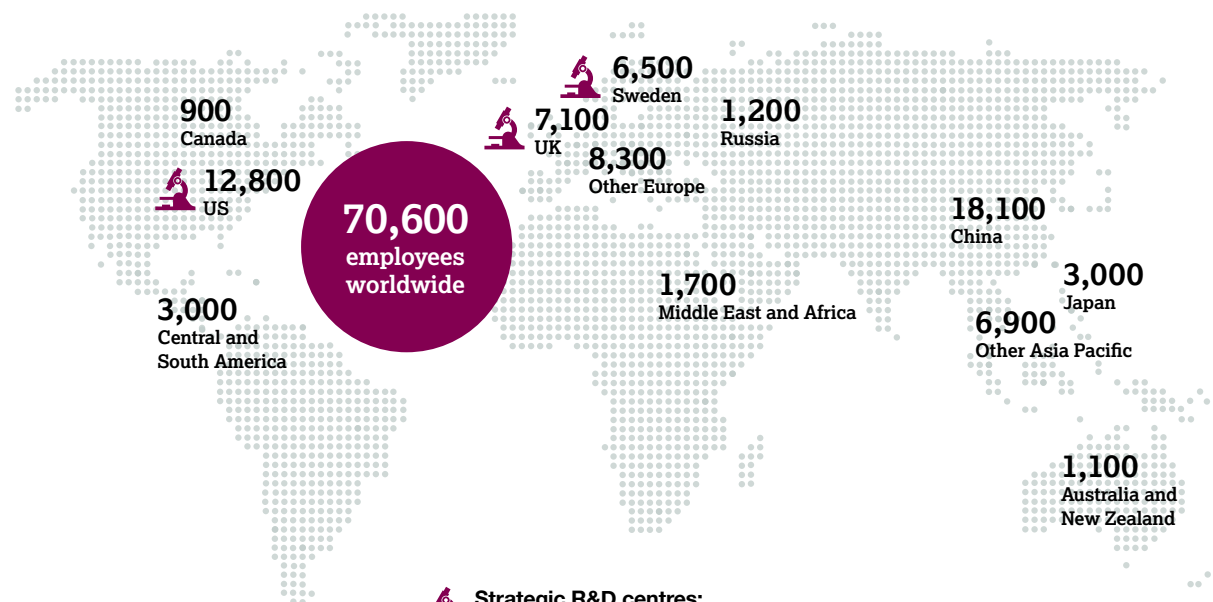
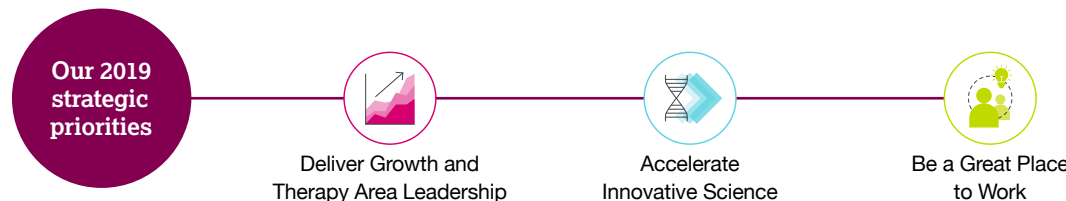
### Cardiovascular, renal and metabolism (CVRM)

As science uncovers commonalities between cardiovascular, renal and metabolic diseases and their associated complications, we aim to transform how they are understood and treated.

### Respiratory

Our objective is to transform the treatment of respiratory disease with our growing portfolio of medicines and scientific research targeting disease modification.

We are also active in other disease areas – autoimmunity, neuroscience and infection.



### Strategic R&D centres:

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

### Global R&D centres:

California, US; Boston, MA, US; Macclesfield, UK; Shanghai, China; Osaka, Japan

**\$6.1bn**

R&D spend

**\$24.4bn**

total revenue



## Our recognition

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

100 Most Sustainable Companies  
**Corporate Knights**

A List  
Climate Change and Water  
Security  
**CDP**

"Outperformer"  
8th of 159  
**Sustainalytics**

Index series constituent  
**FTSE4Good**

AA rating  
**MSCI**



# Sustainability governance

Katarina Ageborg, Executive Vice-President, Sustainability and Chief Compliance Officer, President AstraZeneca AB, Sweden ▶



## Leadership messages: an interview with Katarina Ageborg

**Jayasri Prasad, Senior Director, Head of Global Sustainability, AZ India, speaks with Katarina Ageborg, on behalf of employee advocates who are leading a lake restoration programme to return water sources to Chennai, India.**

**JP: We've seen first-hand in Chennai the devastating impacts of droughts and flooding recently; what are we doing to be proactive in addressing the likely effects of climate change?**

KA: We recognise the climate crisis in the world and I'm very motivated by the bold steps we are taking with our Ambition Zero Carbon initiative. In January 2020, we announced our plans to be carbon free in our operations by 2025 and carbon negative across our entire value chain, which includes all our suppliers too, by 2030. To create a carbon negative environment across the whole value chain is very ambitious and will require a lot of collaboration. We will have to work with suppliers locally, distributors and others; and engage marketing companies to look at their own impacts, own the plans and come up with ideas. I am happy that we are taking this stand which I think will be strongly supported by our employees around the world.



▶ Jayasri Prasad (front row, green shirt), and employee volunteers, restored a water source in Chennai, India

**JP: Indeed, in India our employees were very excited to hear about the Ambition Zero Carbon initiative, particularly our younger employees who have been asking how Chennai can contribute. On a more practical note, how does the company assess the risks of climate change, as we make our plans?**

KA: Global Sustainability works regularly with Enterprise Risk Management to share and integrate insights and trends. We monitor environmental considerations as a risk element and in 2019, we began a climate risk assessment based on physical climate hazards. So, it is important and there are specific governance structures looking at environmental risks.

**JP: In 2019, we learned about many sustainability initiatives under way across the company. What was your favourite achievement during the year?**

KA: I think my favourite achievement was the work we are doing to increase public and employee awareness of the environment's impact on health. We support the UN's Sustainable Development Goals (SDG). SDG 3 is about Good Health and Wellbeing, and we have contributed directly to the work of the UN Global Compact on Healthy Planet, Healthy People which was published during the 2019 General Assembly. I think we are equipped to address the environmental impact on health, because of course it has to do with our three therapy areas of CVRM, respiratory and oncology. It's also good that we engage with what's happening with the climate, because it has a direct impact on health issues that we are trying to tackle.

**JP: How do you engage employees in this effort and what role do they have to play?**

KA: They play an enormously important role, because we rely on employees to not just be activists and advocates at their own sites and communities and in their functions, but also to identify topics that are relevant. I think that our employees feel empowered to identify problems and create solutions. For example, our recent announcement that we are going to plant 50 million trees between now and 2025, was very much inspired by our employee initiatives of tree-planting, also called AZ Forest. Our Healthy Heart Africa initiative also came from an employee crowd-sourcing event that we held for our Values.

*"At AstraZeneca, we all work to make the world a better place. We push the boundaries of science to deliver life-changing medicines to the people who need them, and in 2019 we delivered unprecedented progress. Our focus on sustainability is integral to our efforts, and I am proud of the advances that we continue to make across our three priority areas – increasing access to healthcare, protecting the environment, demonstrating our commitment to ethics and transparency. And, with the ambitious plans that we have set out in both the short and longer term, we will make an even bigger contribution to patients and society in 2020 and beyond."*

Pascal Soriot, Executive Director and CEO



▶ Pascal Soriot, CEO (right), and Leif Johansson, Non-executive Chairman of the Board (left), plant the first trees of a 25 million tree reforestation programme in Australia





## Sustainability governance continued

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### Board of Directors

Non-Executive Director Geneviève Berger, member of the Science Committee, oversees sustainability matters on behalf of the Board of Directors. The Board reviews the sustainability scorecard each quarter. In 2019, the Board approved including sustainability metrics into the company's new culture dashboard that it will review.



▲ Members convened at a Sustainability Advisory Board meeting in London

### Senior Executive Team

The Senior Executive Team (SET), composed of our company leaders, is accountable for specific sustainability initiatives and reviews the sustainability scorecard each quarter. Katarina Ageborg, Executive Vice-President, Sustainability and Chief Compliance Officer, President AstraZeneca AB, Sweden, is responsible for the overall sustainability strategy execution, including tracking our progress towards targets, and liaising with company leadership to ensure our strategy is aligned with business priorities.

### Sustainability Advisory Board

Our Sustainability Advisory Board comprises SET members and external sustainability experts. It met in 2019 to approve strategic direction, recommend opportunities and provide insight.

#### Value created by external advisers

Each adviser has deep expertise in one or more sustainability fields, spanning climate change, accessible healthcare, operations, strategy integration, human rights and product environmental stewardship. This range of perspectives helps us to understand the diverse concerns of external stakeholder groups. The advisers offer insights from other sectors and industries that we may not have considered otherwise. Most importantly, they challenge our thinking and push us to see things differently.

#### AstraZeneca SET members

- EVP Sustainability, Chief Compliance Officer, President AstraZeneca AB
- EVP Operations & IT
- EVP & President Bio-Pharmaceuticals R&D
- EVP & President International
- EVP Human Resources

#### External sustainability experts:

- **Pankaj Bhatia**  
Deputy Director, Climate Program, World Resources Institute
- **Dame Polly Courtice, DBE, LVO**  
Director, Cambridge Institute for Sustainability Leadership, University of Cambridge
- **Louise Nicholls**  
Managing Director of Susesco and Vice Chair of IEMA (previously Corporate Head of Human Rights, Food sustainability and packaging at Marks and Spencer PLC)
- **Rain Henderson**  
Founder, Elementor Advisors



*"As a new member of the Sustainability Advisory Board, I have been impressed by Senior Executive Team engagement, the level of transparency and willingness to act on feedback. It was great to see the robust Advisory Board debate reflected in the new Ambition Zero Carbon strategy."*

Louise Nicholls,  
Sustainability Advisory  
Board Member

### Stakeholders

Throughout the year, we engaged with our workforce and external stakeholders to hear their concerns and feedback related to our current sustainability initiatives and their expectations for the future. See more in the [Stakeholder engagement](#) section.



Patients



Healthcare professionals



Investors/  
analysts



Communities



Suppliers



Workforce



Government bodies  
and regulators



# Global development contribution



**The UN 2030 Agenda for Sustainable Development is a universal action plan for a fairer, safer and healthier world for all, including the world's most disadvantaged and vulnerable. It represents the collective actions the world can take to address the biggest issues we face as a global community.**

Success is measured using the 17 Sustainable Development Goals (SDGs). Businesses, governments, non-governmental organisations and communities are helping global society make progress towards these goals. As a global biopharmaceutical company investing in improving human health and advancing science, we are listening, and we recognise our responsibility to contribute to the delivery of these ambitious and valuable goals.

We measure our contribution to society by connecting our company targets to the SDG targets. In 2019, we continued our work on the SDGs. Our approach to focus on six SDGs enables us to have a greater positive impact. These six SDGs are the most related to our core business – health. Health is at the heart of what we do, and we provide holistic health solutions, ranging from medicines for patients to workforce wellbeing initiatives.

## SDG 3 Good health and wellbeing



### Why it matters

Non-communicable diseases (NCDs) kill more than 41 million people each year, equivalent to 70% of all deaths globally. It is estimated this will cost the global economy \$47 trillion by 2030.<sup>1</sup>

### Material issues

Disease prevention and treatment, Responsible R&D, Investments in health systems, Environment's impact on health, Affordability.



### SDG targets and our contribution

#### 3.4 Reduce premature mortality from NCDs

AstraZeneca has become a Patron sponsor of the United Nations Global Compact (UNGC) action platform: Business Ambition for Climate and Health

**Over 19 million people** reached through our select Access to healthcare programmes (Healthy Heart Africa, Young Health Programme, Healthy Lung and Phakamisa)

**167 projects** in our pipeline as of 31 December 2019

AstraZeneca sponsors the [Lead2030 Challenge](#) for Goal 3 for young people to create health promotion ideas to reduce health risk behaviours in youth

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

**31% decrease** in the vehicle collision rate of our workforce since 2015, we aim for -55% by 2025

#### 3.8 Achieve universal health coverage

**Over 2,600 health facilities** activated or partnered (cumulative)

#### 3.c Increase the health workforce in developing countries

**Over 81,000** healthcare workers trained (cumulative)

## SDG 5 Gender equality



### Why it matters

Empowering women is essential to expand economic growth, promote social development 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.<sup>2</sup> It would take 217 years to achieve gender equality in the workplace if all things remained equal.<sup>3</sup>

### Material issues

Inclusion and diversity, Ethical business culture, Talent and workforce evolution, Human rights, Responsible supply chain.



### SDG targets and our contribution

#### 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

Committed to the United Nations Women's Empowerment Principles

**45.4%** of senior middle management roles and above held by women

**50.0%** of all AstraZeneca employees are women

**33.3%** of our Board of Directors are women



## Global development contribution continued

### SDG 8 Decent work and economic growth



#### Why it matters

Inequality is rising globally and there are not enough jobs to keep up with a growing labour force. Substandard working conditions are often related to poverty, inequality and discrimination. In many contexts, vulnerable 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.<sup>4</sup>

#### Material issues

Workforce wellbeing and safety, Talent and workforce evolution, Ethical business culture, Human rights, Responsible supply chain.



#### SDG targets and our contribution

##### 8.5 Achieve full and productive employment and decent work for all women and men, and equal pay for work of equal value

100% of countries where we operate were evaluated for local living wage performance (as of 2018)

83% of respondents to our employee survey said they have opportunity for development and growth

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

Increased supplier assessment – 89% spend through our third-party risk management programme

41% reduction in reportable injury rate from 2015 baseline

### SDG 12 Responsible consumption and production



#### Why it matters

Currently, 40% of the world's population lives in water-stressed river basins.<sup>5</sup> Each year, nations generate 1.3 billion tonnes of waste, a number that is expected to double by 2025.<sup>6</sup> Waste includes chemicals that can accumulate in water sources and impact wildlife and human health.

#### Material issues

Product environmental stewardship, Greenhouse Gas emission reduction, Pharmaceuticals in the environment, Water stewardship, Waste management.



#### SDG targets and our contribution

##### 12.2 Achieve the sustainable management and efficient use of natural resources

18% reduction in our water use since 2015

50% of active pharmaceutical ingredient (API) syntheses met resource efficiency targets since 2015

##### 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<sup>7,8</sup>

97% of API discharges from suppliers demonstrated as safe<sup>8</sup>

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

11% increase in our waste since 2015

44% of total waste is recycled

26% decrease in Process Mass intensity for development portfolio in 2019

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

89 manufacturing partners with 131 sites were evaluated for overall sustainability performance using our Supplier Sustainability Framework

##### 12.7 Promote public procurement practices that are sustainable

Partnered with peers to launch the first Pharmaceutical Industry Supplier Diversity Forum in the UK and Europe



A colleague in a Future Lab – designed to accelerate innovation ▶





## Global development contribution continued



### SDG 13 Climate action



#### Why it matters

Since 1970, CO<sub>2</sub> emissions have increased by about 90%,<sup>9</sup> with current atmospheric concentrations measuring at over 400ppm.<sup>10</sup> Air pollution is a leading cause of lung cancer, Chronic Obstructive Pulmonary Disease (COPD), stroke and heart disease.<sup>11</sup>

#### Material issues

Environment's impact on health, Product environmental stewardship, Greenhouse gas reduction.



#### SDG targets and our contribution

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

Commitment to zero carbon emissions for Scope 1 and 2 by 2025 and a carbon negative value chain by 2030

**11%** reduction in Scope 1 emissions from 2015 baseline

**60%** reduction in Scope 2 emissions from 2015 baseline

**62%** of electricity imports sourced or generated from renewable sources

**25%** of our vehicle fleet in Europe, North America and Japan is hybrid or electric, up from 7% in 2018

### SDG 17 Partnership for the goals



#### Why it matters

Nearly two billion people have no access to basic medicines.<sup>12</sup> Public-private partnerships have proved to be one of the most visible manifestations of the power of collaboration to improve access to holistic healthcare.

#### Material issues

All



#### SDG targets and our contribution

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

Strategic partner with the World Economic Forum to collaborate across sectors and industries to help build a better, sustainable future

Joined the Sustainable Markets Council established by His Royal Highness, the Prince of Wales, to help shape policy and find cross-industry solutions to rapidly decarbonise the global economy

With University of Cambridge Institute for Sustainability Leadership – we are one of the founding members of The Prince of Wales Global Sustainability Fellowship Programme to attract academics to identify breakthrough SDG solutions

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

Joined the UNGC's Our Only Future and set science-based climate targets across our operations and value chains

Members of the Climate Group's RE100, EV100, and EP100 consortiums for energy efficiency



# Stakeholder engagement

**We value insights from stakeholders inside and outside our business. They help us shape, advance and implement our sustainability strategy.**

We actively seek stakeholders' input, so we can refine our approach to providing solutions that improve the health of communities, the planet and our business culture. To build strong connections with our stakeholders, we emphasise transparency and open dialogue, which help us understand diverse perspectives and work together to improve the lives of patients. Read more about our in-depth materiality assessment in our [2018 Sustainability Report](#).

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

## Engaging to shape our priorities – materiality assessment

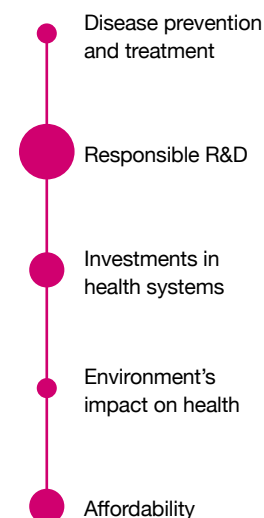
As a responsible business, we continually refine our strategy by examining emerging topics, significant trends and engaging internal and external stakeholders. A materiality assessment helps define the social, environmental and governance issues that matter most to AstraZeneca, and that give our business the opportunity to achieve the biggest positive impact.

In 2018, we worked with an independent consultancy to conduct our sustainability materiality assessment, which helped us identify 16 priority material issues 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.

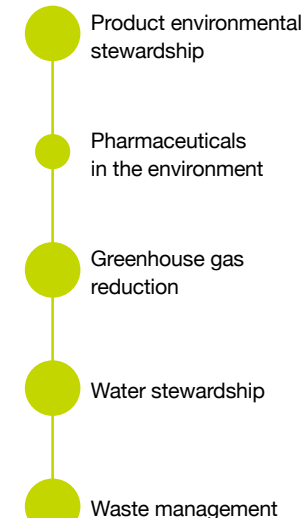


## Materiality assessment results

### Access to healthcare



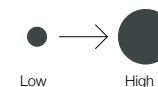
### Environmental protection



### Ethics and transparency



AstraZeneca's ability to influence





# Stakeholder engagement continued

## Featured engagements



### Patients

More than 22 patient advocacy group leaders from across the globe joined AstraZeneca for the first Global Precision Medicine Advocacy Exchange in Gaithersburg, MD, US. The three-day meeting focused on listening to patients for insights into key priorities within the ovarian, breast, pancreatic and prostate patient communities and generating actions to address them.

In the Gulf region, employees created initiatives that seek to understand the world from a patient's perspective including interviews, testimonials, and advisory boards. Several successful projects were initiated as a result of these interactions with patients, including severe asthma and cancer patients support programmes, asthma patients advocacy groups and the first Middle East and Africa region patients website.



### Healthcare professionals (HCPs)

Our digital innovation aims to improve dialogue with HCPs and pursue health solutions for engagement with this group. We launched three new unbranded disease awareness campaigns, which help HCPs by improving opportunities for dialogue.



### Communities

We provided over \$870 million in community investment sponsorships, partnerships and charitable donations worldwide, including our product donation programmes and Patient Assistance Programmes, which make our medicines available free of charge or at reduced prices.

An example of our involvement in communities is the AstraZeneca Healthcare Foundation in the US.

We support Connections for Cardiovascular HealthSM, a programme for heart health launched in 2010. In 2019, it provided \$775,000 in grants to 11 non-profit organisations in the US to prevent cardiovascular disease. Learn more on the Foundation [website](#).



### Suppliers

AstraZeneca Brazil became our first market to qualify toward our goal to implement supplier diversity programmes in 10 new markets outside of the US by 2025.

We hosted the first AstraZeneca Supplier Diversity Summit in Brazil, where we met with suppliers and industry partners to discuss the importance of inclusion and how we can make positive change in the community together.



### Workforce

Colleagues from around the world shared ideas and success stories during our 2019 Sustainability Matters Week. Together, we explored our refreshed sustainability strategy and discussed how to further our efforts to continue to make changes for the better.

Through local activities and global virtual events, we discussed topics from finding patient-centric ways to improve access to our medicines, to reducing meat consumption in our cafes to support the environment and human health.

In our semi-annual Pulse survey, 86% of respondents stated they understand how to contribute to AstraZeneca's sustainability priorities.



### Investors/analysts

In addition to information incorporated throughout the Annual Report, we share sustainability-related updates with investors, analysts, ratings agencies and other stakeholders by including content in a dedicated section within our full year and quarterly results announcement and presentation. We actively engage on sustainability-related topics via one-to-one meetings, regular roadshows, site visits, conferences and events.



### Government bodies and regulators

Ongoing dialogue and partnership with government bodies and regulators enable our medicines to reach patients.

CEO Pascal Soriot, spoke with the US Senate Finance Committee on drug pricing, noting, "we recognize that the current state of drug pricing in the US healthcare system is not sustainable and that patients are facing increasingly high out-of-pocket costs. We believe that these issues must be addressed urgently, and we hope to be a constructive partner in finding solutions."







# Access to healthcare

Why:  
**Health is at the heart  
of our business**

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

Connection to health:  
**Creating innovative  
healthcare solutions and  
partnerships is essential  
for global health**

**Our material  
focus areas**

Disease prevention  
and treatment



Responsible  
R&D

Investments in  
health systems



Environment's  
impact on health

Affordability



**Impact**

**Supporting the  
UN Sustainable  
Development Goals  
universal action plan  
for a fairer, safer and  
healthier world**



3 GOOD HEALTH  
AND WELL-BEING



17 PARTNERSHIPS  
FOR THE GOALS

**19.8m+**  
people reached  
through Healthy  
Heart Africa,  
YHP, Healthy  
Lung and  
Phakamisa  
(cumulative)

**\$801m**  
of medicines  
donated through  
Patient Assistance  
Programmes

**81,000+**  
healthcare  
workers trained  
(cumulative)

**9.7m+**  
reached through  
Patient Assistance  
Programmes  
(cumulative)



# Access to healthcare overview

Access to healthcare at AstraZeneca goes beyond our medicines. We provide healthcare solutions along a journey to improve health – from prevention and awareness, diagnosis, treatment, to post-treatment.

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

How will we do this?

Innovating  
Partnering  
Transforming

To deliver life-changing medicine

To improve access and affordability

For the future of healthcare

We work across our main therapeutic areas to address non-communicable diseases for patients with unmet needs. We recognise that healthcare exists inside systems and we collaborate with experts in these systems to improve health outcomes of patients. When it comes to our internal initiatives, we place a strong emphasis on the role of health in workforce wellbeing and safety, our supply chain and environmental stewardship.

## Access to healthcare approach

- We help to ensure that our medicines get to people who need them by investing in health systems around the world.
- We are making changes to address affordability to help ensure our medicines are accessible.
- We seek to expand disease prevention and treatment whenever possible, through screenings, awareness programmes and training healthcare professionals.

## The big picture

Health is key to a thriving society. Healthcare is our core business and at the heart of all we do. The mission of our company is to “push the boundaries of science to deliver life-changing medicines.” How do we do this? We work holistically at health - from prevention and awareness, diagnosis, treatment, to post-treatment. We identify unmet medical needs in the world, find synergies between these needs and our scientific knowledge and partner to remove barriers to access for people facing a range of social and economic conditions.



## Material focus areas

Our strategy addresses five health areas, as identified by our [materiality assessment](#):



Disease prevention and treatment



Responsible R&D



Environment's impact on health



Investments in health systems



Affordability



## Key accomplishments

- Access to healthcare case studies published in a United Nations Global Compact Leadership Brief.
- Pam Cheng, EVP of Operations, spoke at the United Nations during Climate Week NYC on the connection between the health of people and the planet.
- Access programmes expanded to 6 new countries.



◀ Our Healthy Heart Africa programme has been supporting patients for five years



# Disease prevention and treatment

## Why it matters

**Non-communicable diseases (NCDs) are the number one cause of death and disability globally. They claim the lives of more than 41 million people each year, place a significant burden on health systems and disproportionately impact low- and middle-income populations.<sup>1</sup>**

NCDs, such as cancer, diabetes, respiratory and heart disease are chronic and progressive conditions that are the result of many different factors – from social, to environmental, to genetic and behavioural. These are no longer diseases of older people. They are appearing in younger populations, with more than 15 million NCD deaths considered premature.<sup>1</sup>

## Description

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

## Business connection

It is estimated NCDs will cost the global economy \$47 trillion by 2030 in lost productivity.<sup>2</sup> This has the potential to bankrupt health systems, which make prevention and treatment necessary tools to ensure healthcare is accessible in the future. We are in a strategic position to leverage our scientific expertise to develop and scale treatment and prevention solutions for NCDs. We are a global company and our broad geographic reach gives us this responsibility and opportunity.

Our work contributes to these Sustainable Development Goals:



## Approach

Disease prevention and treatment occur along a journey to improve health. Many of our tactics include elements of both. We put our commitment to health into action through internal prevention and treatment initiatives with our workforce, as well as external programmes with our patients and partners. We are energised by the promising outlook of alternative ways of providing healthcare, such as integrating digital solutions into the patient experience through wearables. See more in [Investments in health systems](#) and [Workforce wellbeing and safety](#).

## Prevention

With health at the heart of our business, we seek to prevent disease and support people on their path to better health. We do this through:

- 1 Health promotion
- 2 Advocacy
- 3 Research

## Treatment

For those who have been diagnosed with a condition, we strive to ensure access to effective treatment. We are hard at work, with 167 projects in the pipeline as of 31 December 2019. Our work focuses on:

- Therapy areas - oncology; cardiovascular, renal and metabolic diseases; and respiratory diseases.
- Concentrating our portfolio on our three main therapy areas – oncology; cardiovascular, renal and metabolic diseases; and respiratory diseases.
- 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 continued

### Sustainability in action

#### Young Health Programme (YHP) of AstraZeneca

Many NCDs are influenced by a set of defined risk factors: tobacco use, the harmful use of alcohol, unhealthy diets, physical inactivity and exposure to air pollution. Approximately 70% of premature deaths from NCDs can be linked to behaviours that started in adolescence.<sup>3</sup> Our Young Health Programme addresses this situation. In 2019, YHP reached almost 1 million young people with health information on NCDs and risk behaviours and trained more than 8,500 peer educators and healthcare workers. We launched new programmes in Myanmar, Mexico, Thailand and Vietnam, bringing the total number of countries with active programming to 18. Learn more [here](#).



YHP in Brazil @Marco Betti for YHP ▲

#### A step on our journey to eliminate cancer

Lung cancer is the leading cause of cancer-related death. It claims a life every 18 seconds<sup>4</sup>, and only one in five people are alive five years after initial diagnosis.<sup>5</sup>

##### We have a bold ambition to eliminate lung cancer as a cause of death.

We know that we cannot do this alone, so we have partnered with experts to find the best possible solutions for patients by joining [The Lung Ambition Alliance](#), a collaboration with the International Association for the Study of Lung Cancer (IASLC), Guardant Health, and the Global Lung Cancer Coalition (GLCC). The objective is to double the five-year survival rate for lung cancer patients. The Alliance illustrates our patient-centric mindset, meaning we focus on the experience of the patient and understanding what is most important on their path to wellness. This begins with prevention and awareness and The Lung Ambition Alliance is focused on raising awareness of the strong evidence for screening, addressing barriers to early detection and increasing diagnostic accuracy. It also supports our oncology strategy to become a global leader in lung cancer, building on our successful portfolio and pipeline of innovative medicines to treat the most lethal form of cancer.

#### Empowering asthma HCPs and patients with knowledge

Nearly 70% of adults with asthma may have too many cells called eosinophils. Having too many eosinophils can lead to more asthma attacks and worse outcomes for patients. Unfortunately, many patients and physicians are not aware of the role that eosinophils have on asthma control and therefore do not test for them. To help bridge this gap and empower patients to have a different dialogue with their physician, the team launched a [free blood test for patients](#) to check their eosinophil number. Patients take this information to their physician which can improve the dialogue and get them on the right track to better asthma control.

**Nearly 70%**  
of adults with asthma  
may have too many cells  
called eosinophils



#### 2020 target

Maintain YHP in current active markets and expand into two new markets



Status: On plan

#### 2019 update

YHP has reached 18 markets. We added four new markets

#### 2020 target

Reach 3.5 million young people through YHP (cumulative)



Status: Achieved

#### 2019 update

We surpassed our 2020 target early and have set a new one to reach 5 million young people by 2025. We renewed our commitment to YHP with a pledge of \$35m to continue the programme through 2025 and with the addition of a new partner, UNICEF

#### Many ways to impact disease outcomes

Many of our Access to healthcare programmes include a dimension of disease prevention. For example, our Healthy Lung programme raises the profile of respiratory disease and Healthy Heart Africa educates on hypertension risks. See more in [Investments in health systems](#).



## Disease prevention and treatment continued



### Challenges

Many of the factors that impact NCDs, such as smoking, drinking, sedentary lifestyles and poor diet, can result from lifestyle choices or other social and environmental determinants of health. This means that we must look at the entire system involved in NCDs, understand the interconnections and engage a wide range of stakeholders. Taking a systemic approach requires time, especially to cultivate impactful relationships. The health benefits of prevention and treatment can often take many years to materialise, meaning the outcomes are not immediate. We need to find a way to continue to integrate prevention into our business model in order to address this issue comprehensively.

### Highlights

#### **Act on diabetes – closing the gap between guidelines and clinical practice**

In October 2019, 70 clinicians, policy-makers, government and patient advocacy group representatives from 15 European countries attended the European Diabetes Policy Summit in The Hague, organised by AstraZeneca in partnership with Primary Care Diabetes Europe. The aim of the meeting was to discuss evidence-based better practices in policy-making to prevent cardiovascular disease and its complications in people with diabetes and to effectively implement existing clinical guidelines. Supported by AstraZeneca, the European Expert Declaration *Closing the gap between clinical guidelines and real-life practice* was launched at the meeting.

#### **Investing in research for policy**

We commissioned the Economist Intelligence Unit to evaluate national policies for NCD prevention in youth. The result – the [NCD Policy Scorecard](#) – found that social determinants of health are a key contributor to growing NCD rates.





# Responsible research and development

## Why it matters

**Continuous innovation and a long-term perspective are critical to address evolving current and future public health needs.**

Non-communicable diseases (NCDs) are the greatest cause of death worldwide.<sup>1</sup> 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. Today, we have a mature portfolio designed for unmet medical needs, and we drive pipeline focus on creating innovative medicines including in low- and middle-income countries, and appropriate for use in local contexts.



## 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.



## Business connection

Responsible R&D is good business because it drives us to innovate, establish new and expand existing partnerships, venture into new markets and develop new medicines.

Our work contributes to these Sustainable Development Goals:



## Approach

Cross-functional pipeline governance teams meet regularly to continue development of an innovative product portfolio approach to drive global health outcomes by:

- 1 Addressing unmet medical needs and barriers to patient experience.
- 2 Increasing the speed and breadth of patient access.
- 3 Driving excellence in product life-cycle management.
- 4 Striving to understand long-term impacts of scientific advances.

AstraZeneca has a variety of medicines available in the pipeline and we recognise the positive societal benefits these medicines can have for patients. In 2019, we have worked to advance our approach and identify innovations. We engage in activities aimed to:

- Increase the number of people we reach with our medicines by addressing unmet medical needs.
- 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.
- Integrate access considerations into project pipeline governance.
- Invest in science and technology, such as digitalisation and precision medicine, which can help reduce infrastructure costs and ensure patients receive the treatment they need most effectively.
- Consider the range of ethical patient access issues that arise from biological and medical science.

These activities help us reach more patients by taking a comprehensive view of the R&D process.

Responsible R&D is closely related to other areas of our sustainability strategy, including Affordability, Investments in health systems, Product environmental stewardship and Ethical business culture including bioethics.

## Sustainability in action

### Accelerating access to infants

We prioritise public health by introducing new treatments and preventive options to vulnerable populations with unmet medical needs. We show our commitment to this through our participation in the European Medicine Agency's (EMA) PRIME MEDicines (PRIME) scheme. PRIME offers early support to developers of promising medicines to accelerate evaluation and expedite patient access. In 2019, the EMA granted us our first eligibility for PRIME for an immunisation to prevent an infection caused by respiratory syncytial virus (RSV). **To be eligible for PRIME, medicines must target an unmet medical need and show potential benefit for patients based on early clinical data.**

What is the significance of the unmet medical need we are addressing? RSV is the most common cause of LRTI in infants worldwide, and 90% of babies are infected with RSV in the first two years of life.<sup>2</sup> This medicine is being developed for use in all infants, whereas the current standard of care is for high-risk infants. Additionally, it is being developed as a single dose administration during the RSV season compared to monthly injections with the current standard of care,<sup>3</sup> which can improve the patient experience as well as decrease waste. We are demonstrating SDG 17 Partnerships for the Goal – by collaborating with Sanofi Pasteur to bring this medicine to patients.

▼ The PRIME team discussing geographic spread of the project







## Responsible research and development continued

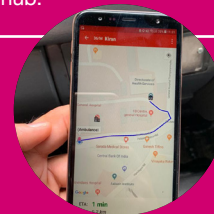
### Sustainability in action

#### Health Innovation Hubs in emerging markets increase access to healthcare

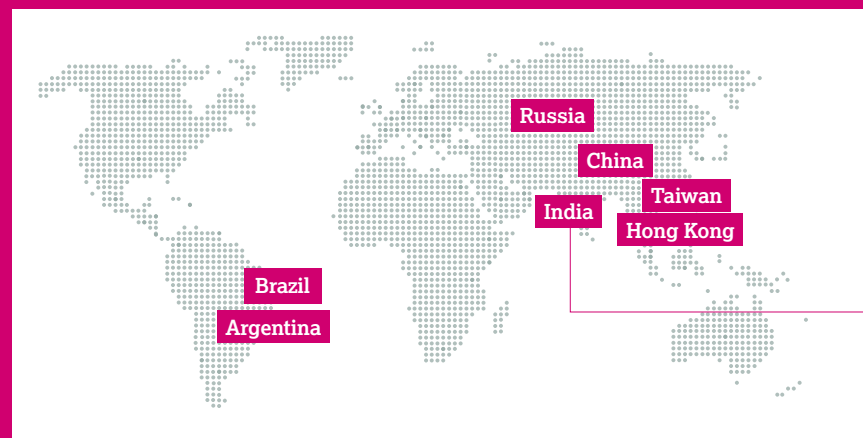
Our seven Health Innovation Hubs in emerging markets focus on bringing AstraZeneca employees from Digital, R&D and Commercial together in reimagining how we can improve patient outcomes. The vision is to create and strengthen partnerships to accelerate innovation, increase access to healthcare and improve outcomes for society. These hubs in emerging markets form part of our AstraZeneca Global Health Innovation Hub Network. The first emerging markets hub opened in Russia in 2018, and subsequently in Brazil and Taiwan. In 2019, hubs were opened in Argentina, China, India and Hong Kong.

Read more on our [website](#).

The hub in India operates in partnership with the National Association of Software and Services Companies (NASSCOM). It is home to a local accelerator programme for health-tech start-ups. In 2019, we ran a hackathon in partnership with the Indian Government and the Embassy for Sweden, to identify start-ups we could collaborate with to build patient-centric solutions. Tricog, a start-up partner, created one such solution called Heart Beats that addresses local demand for early diagnosis and intervention for heart attack patients, by enabling cloud-based artificial intelligence diagnosis of electrocardiograms. This technology routes patients to the nearest cath lab, resulting in more accurate diagnoses and improved patient outcomes. Tricog has also signed a partnership with our China hub.



Tricog in action ▶



#### AstraZeneca scientists challenge sex bias in research

AstraZeneca scientists are raising awareness of an imbalance in preclinical research: animal studies predominantly favour one gender – males. Their [paper](#) is a call to action to include female animals and cell lines throughout the preclinical study design. It has long been recognised that gender-specific differences can affect disease progression and treatment; however, sexual bias in the preclinical study design continues. Sex bias has been highlighted as one potential contributing factor for the poor replicability and translation to human studies. This bias even persists in preclinical research for female prevalent diseases. The paper discusses the cultural dynamics that create significant barriers to change, and leadership must be the catalyst to drive a culture which encourages disruptive thinking.





# Responsible research and development continued

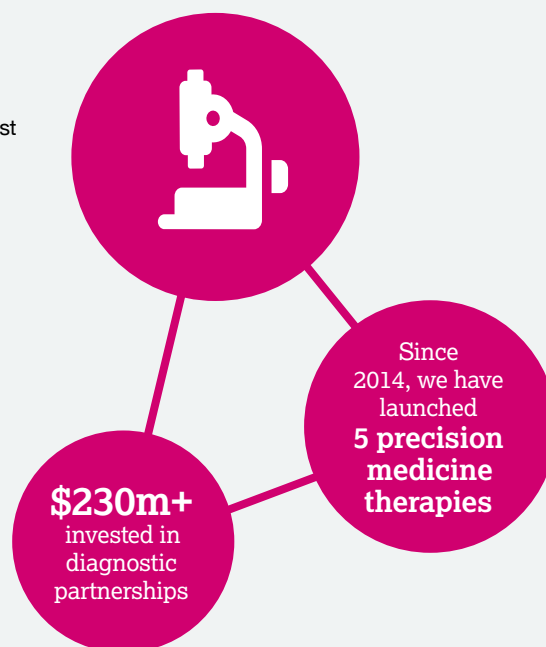
## Sustainability in action

### Precision medicine and diagnostics

Precision medicine aims to transform patients' lives through personalising treatment. We use individual characteristics to match treatments to patients most likely to benefit. Our precision medicine approach uses a broad range of technologies, such as tumour tissue diagnostics, molecular tests and point of care diagnostics. Since 2014, we have launched five precision medicine therapies linked to 35 diagnostic tests.

- We have invested over \$230M in diagnostic partnerships and have made investments in precision medicine across all therapeutic areas and phases of clinical development although most progress so far has been in treatment for cancer.
- We partnered with Myriad Genetics to gain FDA approval for a test to identify patients with metastatic pancreatic cancer who might benefit from targeted treatment. This is the first companion diagnostic test approved in this aggressive disease where there are few new treatment options available to patients.

- We are working with liquid biopsy specialists at Guardant Health to develop blood-based companion diagnostics for our cancer treatments, including tests to measure tumour mutational burden.
- We are enthusiastic about developing technologies that can detect disease at an early stage. For example, we are exploring certain tests based on circulating tumour DNA to measure minimal residual disease in colorectal cancer, which could lead to patients being matched to novel treatments earlier than normal, when they are more likely to respond.



## Progress

### 35 diagnostic tests

Since 2014, we have launched five precision medicine therapies linked to 35 diagnostic tests.

### 1 PRIME project

The EMA's PRIority MEdicines scheme offers early support to developers of promising medicines to accelerate evaluation and expedite patient access.

### 7

Health Innovation Hubs in emerging markets bring AstraZeneca employees from Digital, R&D and Commercial together to reimagine how we can improve patient outcomes.

## Challenges

While we have made promising developments in biologics, these present challenges related to oral administration and cold chain storage when it comes to providing access to care. To address these issues, we are continuing to push the boundaries of science by exploring novel formulations and delivery technologies in our development processes. This process is highly complex and introducing any major changes takes time to embed and gain buy-in.

## Highlights

### Embedding access into our pipeline process

Access to healthcare has been formally integrated into the project pipeline governance process. In 2019, revisions to the Target Product Profile (TPP) went into effect, requiring all projects preparing for Phase 2/3 investment decisions to include Access to healthcare considerations into the project governance review. A TPP is a document that is used to facilitate the drug development process and streamline approval from regulatory agencies. It includes drug labelling concepts and goals and is developed with the commercial goals in mind. The TPP optimises therapeutic benefit, clinical study design, and commercial marketing strategy.





# Environment's impact on health

## Why it matters

**The connection between the health of the planet and people is clear. Environmental factors – the air we breathe, the water we drink, the soil we depend upon, the climate we live in – impact the health of humans.**

The World Health Organization estimates that nearly 13 million people die each year from environmentally related health risks, including 7 million people from air pollution alone.<sup>1</sup> Air pollution can cause respiratory diseases;<sup>2</sup> in fact, air pollution has been recognised as the second leading cause of non-communicable disease (NCD) deaths worldwide, behind tobacco smoke.<sup>3</sup>

The climate crisis poses risks to public health, with rising global temperatures now contributing to increased effects from respiratory and cardiovascular disease, impacts from extreme weather, 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.<sup>4</sup>

**The good news is that the benefits from reducing our environmental footprint can be realised – positive impacts to human health can take effect within a few years of reducing emissions and modifying environments.**

This can in turn prevent certain diseases, such as COPD, lung cancers, stroke and heart disease.<sup>5</sup>

## 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, the environmental dimension of antimicrobial resistance (AMR), among others.

## Business connection

With health at the heart of our business, we have a responsibility to raise awareness of the connection between the health of the planet and human health. By supporting healthy environments, prevention and mitigation efforts contribute to a healthier workforce and can also benefit the healthcare systems our business relies upon by slowing the incidence of disease on a global scale.

Our work contributes to these Sustainable Development Goals:

3 GOOD HEALTH AND WELL-BEING



17 PARTNERSHIPS FOR THE GOALS



## Approach

Our strategy on this issue is Healthy Planet, Healthier People. This recognises that the health of our planet and the health of people do not exist in isolation; they are connected. Our approach follows that by contributing to a healthy planet, we can improve the health of people. In 2019, this strategy was launched to address our environmental impacts from the beginning of our research process to cross-sector collaborations for improved planetary health.

“

*“Our collective response to climate change over the next 10 years will define health and wellness globally for generations to come. We do not have the next 50 years to make a difference, the time is now.”*

Pam Cheng,  
EVP Operations and IT

## Sustainability in action

### Health is Everyone's Business

A cross-industry initiative, the United Nations (UN) led group '[Health is Everyone's Business](#)', drives progress on Sustainable Development Goal 3 – Good Health and Wellbeing – as part of the UN Global Compact. A result of this collaboration is the [Business Leadership Brief for Healthy Planet, Healthy People](#) which outlines concrete actions for companies to embed health and empowerment in their operations. **This brief includes case studies from AstraZeneca that highlight our work on the connection between a healthy planet and healthier people.**

▼ Pam Cheng, EVP Operations & IT, spoke at the launch panel event for the Brief at the United Nations General Assembly (UNGA) Climate Week in New York City, New York







# Environment's impact on health continued

## Sustainability in action

### Turning waste into clean energy – social and environmental impacts

Indoor and outdoor personal exposure to air pollution combined are the greatest environmental risk factors for mortality, responsible for 6.4 million deaths in 2015 (11% of global deaths).<sup>6</sup> In Africa, air pollution causes about 780,000 premature deaths per year.<sup>7</sup>

To address this reality, we launched a pilot project at Lake Victoria's Dunga Beach in Kenya to transform waste into clean energy. In collaboration with the Cambridge Institute for Sustainability Leadership (CISL), the goal is to prevent exposure to air pollutants by offering a substitute to wood-burning cookstoves. The project introduced an innovative biogas technology, in partnership with the local firm Biogas International Ltd. The installation of 50 domestic scale digesters provides the daily energy needs for some of the poorer households and two community scale biodigesters produce gas on the lake shore for commercial use by fish fryers and fish processors.

There are health, environmental and social benefits to this initiative. Substituting the use of wood as solid fuel protects local forests from overexploitation.

In the 38 households surveyed before and after their biodigesters were installed, two-thirds of families reported that their health had improved with less eye pain, fatigue, flu and asthma, and fewer coughs, headaches and back problems (from carrying wood). Indoor air quality in 12 households in the community (eight with biogas and four without) demonstrated that carbon monoxide emissions were reduced. Households saved around \$19 (1,980 KSh) per month from not buying conventional fuels. This represents as much as 10–20% of average income in the community.

▼ Member of Dunga Beach community using wood-burning cookstove that could be replaced with clean energy



## Progress

### AMR

Industry Alliance publishes safe discharge limits for antibiotic production based on an approach published by AstraZeneca

### 100%

of our Young Health Programme new country programmes in partnership with Plan International will include air pollution as a topic of focus

### Case studies

Access to healthcare case studies published in a [United Nations Global Compact Leadership Brief](#)

### UNGC

Patron sponsor of the United Nations Global Compact (UNGC) action platform: Business Ambition for Climate and Health

### 2/3

of the Dunga Beach households surveyed before and after biodigester installation reported health improvements

## Sustainability in action

### Incorporating environmental data to help patients with asthma

Three hundred million people live with asthma worldwide, yet 5–10% of patients with asthma cannot achieve symptom control with existing therapies. In one [study](#), patients with severe uncontrolled asthma used sensor and connected devices to better understand their personal disease experience and triggers, with a goal of creating a predictive algorithm that would enable patients to self-manage their condition and modify risk factors for an improved quality of life. In addition to other biomarkers, the measured triggers include environmental data such as air quality index, pollen level and allergens, and weather data.



**300**  
million people  
live with asthma  
worldwide

Air quality, pollen  
level, allergens  
and weather are  
triggers in asthma  
for some patients



# Environment's impact on health continued

## Sustainability in action

### Research on antibiotics in the environment

Pharmaceuticals can enter waterways via patients and our own operations, so we must understand the limits to ensure we are protecting the health of the planet and people by not overburdening waterways. AstraZeneca and other industry scientists published a [paper](#) that sets discharge limits for drug production that protects both human and environmental health. See our approach to [Pharmaceuticals in the environment](#) for more information.

The discharge limits set by the AMR Industry Alliance follows the recommendations of two AstraZeneca papers.<sup>8,9</sup> These papers show that the environmental organisms responsible for 70% of the planet's primary productivity (carbon dioxide fixation from the atmosphere) are particularly sensitive to antibiotics and need greater protection. The AstraZeneca approach offers greater protection to those organisms that are helping to mitigate the climate crisis.

## Challenges

As we look to the future health of the planet and people, it is vital that we strategically plan actions and accurately measure the associated impact. Identifying measurements that systematically represent the relationship between the planet and people is a task that requires scientific focus in and across sectors.

As we look to the future health of the planet and people, it is vital that we strategically plan actions and accurately measure the associated impact



## Highlights

### Partnering to understand connection between environment and health of patients

In 2019, we collaborated with the Sustainable Healthcare Coalition on a research project to explore the environmental impacts of treating asthma patients using more sustainable medicines. The Sustainable Healthcare Coalition is a partnership of healthcare companies and other health agencies that have come together to address some of the most pressing sustainability issues in global healthcare. The project assessed the total inputs of treating patients (i.e. medicine, greenhouse gas emissions, energy and water) as well as outputs (waste, water and emissions). The findings show that the use of innovations in our medicines will not only benefit patients but also creates wider benefit to the environment.



### Investing in people and planet-healthy buildings

Designing workplaces that promote health for people and the environment is important to us. In addition to applying the Company Minimum Sustainability Requirements, AstraZeneca adopts appropriate external environmental assessment tools such as LEED and BREEAM in order to optimise environmental design for future buildings.

### Preventing impacts from air pollution in youth

In recognising the impact air pollution has on NCD development, our Young Health Programme (YHP) has set a target for 100% of new country programmes in partnership with Plan International to include air pollution as a topic of focus. We recognise that the quality of the local environment can have a profound effect on the health and welfare of adolescents and this new target advances our YHP prevention work in this area. The [YHP programme in China](#) has specifically focused on the environment's impact on health with a stated objective to help migrant children protect themselves from air and water pollution, and enhance their wider safety, through school-based training. Learn more about YHP in the [Disease prevention and treatment](#) section.



# Investments in health systems

## Why it matters

### Healthcare is provided within systems that influence who can receive care and its quality.

The systems comprise patients, families, hospitals, clinics, pharmacies, insurance companies, pharmaceutical companies, governments and more. These systems are complex and need collaboration across and between sectors to create the system-wide changes necessary to ensure that everyone receives equitable, quality healthcare.



## Description

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



## Business connection

Our investments support patients on their journey to wellness. They also are necessary for us to cultivate relationships and gain a more intimate understanding of global, regional and local health challenges so that we can address gaps by developing targeted medicines and treatments.

Our work contributes to these Sustainable Development Goals:

3 GOOD HEALTH AND WELL-BEING



17 PARTNERSHIPS FOR THE GOALS



## Approach

The nature of diseases 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 on a sustainable basis, while leveraging our experience in health programming. This not only enhances local ownership, but it also enables sustainability of programme activities.

We aim to understand how we can strengthen healthcare systems while remaining culturally relevant. We recognise the complexity of healthcare systems and endeavour to collaborate using our global footprint and scale to partner with diverse organisations to make this possible. Through our partnerships, we establish mechanisms for collaboration, for example through joint coordination, planning, follow up and agreement of a set of core indicators for monitoring and evaluation, and most importantly we build the capacity of healthcare systems to better respond to patient needs.

An Access to healthcare working group convenes quarterly and is chaired by the Global Sustainability department to enable data monitoring and best practice sharing with assurance provided annually by Bureau Veritas.

## Sustainability in action

### Investments aligned with our business model

We have three core 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.

#### Cardiovascular

Nearly 30% of African adults were estimated to have high blood pressure in 2014, the highest prevalence in any region.<sup>1</sup> The Healthy Heart Africa (HHA) programme is designed to contribute to the prevention and control of hypertension and decreasing the burden of cardiovascular disease (CVD) across Africa. Currently in its 5<sup>th</sup> year of implementation and present in Kenya, Ethiopia, Tanzania and Ghana, the programme supports sustainable models by working with local health systems. In 2019, HHA expanded into India.

**13.5m+**

blood pressure screenings conducted (cumulative)

**7,200+**

healthcare workers trained, including doctors, nurses, community health volunteers and pharmacists (cumulative)

**750+**

healthcare facilities activated, with the establishment of secure supply chains for low cost, high quality branded antihypertensive medicines, where applicable (cumulative)

**2.4m+**

elevated blood pressure readings identified (cumulative)

Each model works independently with partners in the country of implementation to address different health challenges and health environments, with the aim of providing a sustainable means of fighting hypertension in Africa. HHA, works together with local and global partners to 1) increase awareness and educate around lifestyle choice and CVD risk factors; 2) train providers and drive care to lower levels of the healthcare system and 3) facilitate access to low cost, high quality branded anti-hypertensives, where appropriate.

▼ Healthy Heart Africa in Ghana







## Investments in health systems continued



▲ Healthy Lung Programme in Asia

### Oncology

- AstraZeneca India launched Ganga Godavari Cancer Screening Programme, an early cancer screening programme for women in partnership with the Indian Cancer Society and Charities Aid Foundation India (CAF India). It conducts specialised screenings for oral, breast and cervical cancer for women who reside in slums and resettlement areas as well as workers in certain industries. The objectives are to increase awareness of cancer risk factors and symptoms, reduce the stigma associated with cancer and create positive health-seeking behaviour for prevention.
- AstraZeneca Singapore launched Cancer Can Give. The goal of this initiative is to empower cancer survivors to make a difference in society. We signed a Memorandum of Understanding with the Singapore Cancer Society to demonstrate their commitment to join our efforts to improve the outcomes and lives of people impacted by cancer, by supporting our patients across the entire patient experience.

- AstraZeneca joined The Lung Ambition Alliance, a partnership with the International Association for the Study of Lung Cancer (IASLC), Guardant Health, and the Global Lung Cancer Coalition (GLCC). The objective is to double the five-year survival rate for lung cancer patients. Read more about this story in the [Disease prevention and treatment](#) section.

### Respiratory

This year the Healthy Lung programme expanded to the Philippines and Mexico, bringing the number of markets we are active in to 13. The Healthy Lung programme is designed to build local health systems to support the diagnosis and treatment of respiratory diseases. This includes capacity building of healthcare professionals, medical infrastructure and policy advocacy.

In Mexico, we are a part of a multi-stakeholder strategic partnership to improve the capabilities of healthcare professionals in diagnosing and treating respiratory disease at the Primary Care level and generating local evidence to drive better outcomes for asthma and COPD patients in the healthcare system.



### Targets

#### 2025 target

Improve early diagnosis and access to treatment by reaching 25 million people throughout the world through Healthy Heart Africa, Healthy Lung, and Phakamisa Access programmes



Status: On plan

#### 2019 update

16.42m people reached (cumulative)

#### 2025 target

Train 75,000 healthcare workers to strengthen health systems throughout the world through our Healthy Heart Africa, Healthy Lung, and Phakamisa Access programmes



Status: Achieved

#### 2019 update

81,000+ healthcare workers trained (cumulative)

### Challenges

When we invest in a health system, we strive to ensure a sustainable healthcare system. While we aim to build local capabilities with the hope that markets will eventually gain self-sufficiency, we are aware of the challenges that some markets face with regards to their healthcare gaps and that their journey to sustainability may not be realistic in the near-term.

### Highlights

#### Investing in emerging markets

We recognise the substantial investments that must be made – in infrastructure and people – to reach patients and close gaps on unmet medical needs. A few examples:

#### India:

- Knowledge partner for the new India-Sweden Healthcare Innovation Centre, which aims to accelerate the uptake of solutions in clinics and hospitals across India, that make healthcare more patient-centric, affordable and accessible.
- Partnership with the Nasscom IoT Centre of Excellence to set up an accelerator to support Indian start-ups working in the NCD space.

**South Korea:** Investments to accelerate healthcare, innovation and employment, in line with the government's recently launched 'Innovative Strategy on the Bio-health Industry'.

**China:** Established a joint-venture fund in partnership with a Chinese investment bank, to invest in Chinese health-care startups.

**Vietnam:** Five-year investment to accelerate healthcare capacity development, R&D and talent development.



# Affordability

## Why it matters

### Healthcare can be expensive – often so expensive that it is out of reach for many people.

Reasons for this include gaps in health systems, global inequalities and ageing population as a driver of healthcare costs. By 2050, healthcare costs are projected to be 37% of the GDP in the US and 29% in Germany. To create more sustainability in the healthcare system, stakeholders need to work together. Partnerships will become increasingly important. Industry, policy makers and payers need to work together to develop solutions, such as Innovative Value Strategies (IVS) which includes paying for performance and outcomes.



## Description

The company's position, policy and performance on the pricing of medicines, including tiered pricing, differential pricing, capped pricing, early access programmes, Patient Assistance Programmes, royalty-free licensing, pricing transparency, reimbursement strategy, and commercialisation, strategy, availability and registration.



## Business connection

Our medicines help address unmet medical need, improve health and create economic benefits. Treatments that are targeted and effective as well as innovative and personalised, can lower healthcare costs by reducing the need for more expensive care, preventing more serious and costly diseases and increasing productivity. To ensure that in the long-term there are resources and an infrastructure available to purchase and distribute our medicines appropriately, we must work on affordability today.

Our work contributes to these Sustainable Development Goals:



## Approach

With health at the heart of our business, we are making changes to address affordability to help ensure our medicines are accessible. The price of our medicines is therefore designed to ensure the financial sustainability of healthcare systems and our research-led business model. Our methodology helps us understand the cost of treatment and level of affordability including when patients have to pay for their own medicines. We make our medicines more affordable through:

- 1 Patient Assistance Programmes tailored to each market that can make our medicines available through donation.
- 2 Patient access programmes that coordinate with health systems to deliver medicines at lower out-of-pocket costs for the patient (see [Investments in health systems](#) section).
- 3 Our tiered pricing strategy, which considers ability to pay based on GDP.

In 2018, we published our [Pricing Statement](#) to provide more transparency into our business model and the determinants of pricing. We are committed to a pricing policy for our medicines based on the following principles:

- The agreement on price involves many national, regional and local stakeholders, reflecting factors such as clinical benefit, cost-effectiveness, improvement to life expectancy and quality of life.
- We believe we share a collective responsibility with healthcare providers and other stakeholders to work together to enable an efficient healthcare system for patients today and support a pipeline of new medicines for patients tomorrow.
- We seek to ensure appropriate patient access to our medicines. For example, we have a leading role in the European IMI ADAPT-SMART programme for exploring adaptive licensing.
- We pursue a flexible pricing approach that reflects the wide variation in global healthcare systems. We have developed patient access programmes that are aligned with a patient's ability to pay and healthcare system's ability to respond. We are committed to the appropriate use of managed entry schemes and the development of real-world evidence and we are investigating innovative approaches to the pricing of medicines, such as payment for outcomes received by the patient and healthcare system.

## Sustainability in action

### Supporting patient access through innovative value strategies

We want to ensure the prices paid for our medicines reflect the actual health benefits patients are receiving. A medicine may or may not be effective for every patient and through Innovative Value Strategies, we are building new models to make ourselves accountable and ensure patients are truly benefiting from our products.

What is an Innovative Value Strategy?

**Any agreement that reduces uncertainty of payers (economic or clinical) where access, reimbursement or price is linked to real world clinical benefit or other agreed terms.** This includes Value Based Agreements (VBA), Innovative Financial Agreements (IFA) and Indication Based Pricing (IBP).

We stand behind the value of our medicines, taking on financial risk and reimbursing those who pay for our medicines if the medicine does not perform as expected. We are investing in IVS by, for example, working with partners to collect the data for our medicines that allow us to measure and demonstrate their real-world value. We are working with key stakeholders to shape policies that promote the implementation of these sorts of agreements, both for our own medicines and those of others.

**We have entered into 61 IVS agreements across our three main therapy areas.**



# Affordability continued

## Sustainability in action

### Patient assistance and access

At AstraZeneca, we have offered affordability programmes to patients for more than 35 years. These programmes are available to patients who meet the eligibility requirements and are designed to remove barriers to access and reduce or eliminate out-of-pocket costs. These programmes can offer free and/or discounted product.

Our largest Patient Assistance Programme is AZ&Me in the US, which provides eligible patients with AstraZeneca medicines at no cost. AstraZeneca has provided prescription savings to four million patients across the US and Puerto Rico over the past 10 years.

We have a variety of patient access programmes in Emerging Markets, each tailored to meet the needs of the local community. These include Terapiia Plus in Ukraine, Karta Zdorovia in Russia and FazBem in Brazil, which offer products at a discounted cost.

We are also aiming to enable our Emerging Markets to deliver better and broader patient access through innovative and targeted equitable pricing strategies and practices. By way of example of our approach, we apply Tiered Pricing Principles globally. This defines price levels commensurate with affordability based on a country's ability to pay. We believe that this approach to pricing is sustainable and fair, and that it will increase access and improve patient outcomes in Emerging Markets.

### Health Economic Analysis in Italy and Ireland

#### Italy

AstraZeneca demonstrates the added benefit that a new drug offers patients through health economics (HE) analysis. All HE analyses are conducted in partnership with universities and scientific societies. An example from Italy is showing the cost-effectiveness of a preventive testing strategy in relatives of patients with BRCA mutated ovarian cancer versus a no testing strategy. The evaluation showed how it is cost-effective to include BRCA tests for patients and family of those with a family history of breast/ovarian cancer.

#### Ireland

AstraZeneca participates fully in the industry association agreement on the supply and pricing of medicines, committing to:

- No price increases.
- Upon patent expiry, reduction to 50% of the original ex-factory price.
- A 5.5% rebate on all public reimbursement schemes among other initiatives.

These commitments have led to savings of millions annually, making a considerable contribution to the affordability of medicines in Ireland and freeing up funding to treat more patients. The current agreement is forecast to deliver substantial savings across member companies within the lifetime of the agreement. In addition, AstraZeneca is currently delivering material net pricing discounts to support the affordability of new high cost medicines in key therapy areas.

## ★ Highlights

### Leadership conversations on pricing

Our CEO, Pascal Soriot, spoke at a US congressional hearing this year about pricing. We seek opportunities for dialogue on this topic and take feedback from politicians very seriously, as they represent our patients. Read Pascal's public statement to the US Congress [here](#).

## 🧩 Challenges

We remain committed to working with payers to explore novel and flexible ways to assess and pay for medicines toward our shared goal of delivering the outcomes that matter for patients through innovative and personalised treatments. We are collaborating with payers to conclude outcomes- and value-based reimbursement that improves patient outcomes.



## Outcomes

# 9.7 million

people reached by Patient Assistance Programmes

# \$801 million

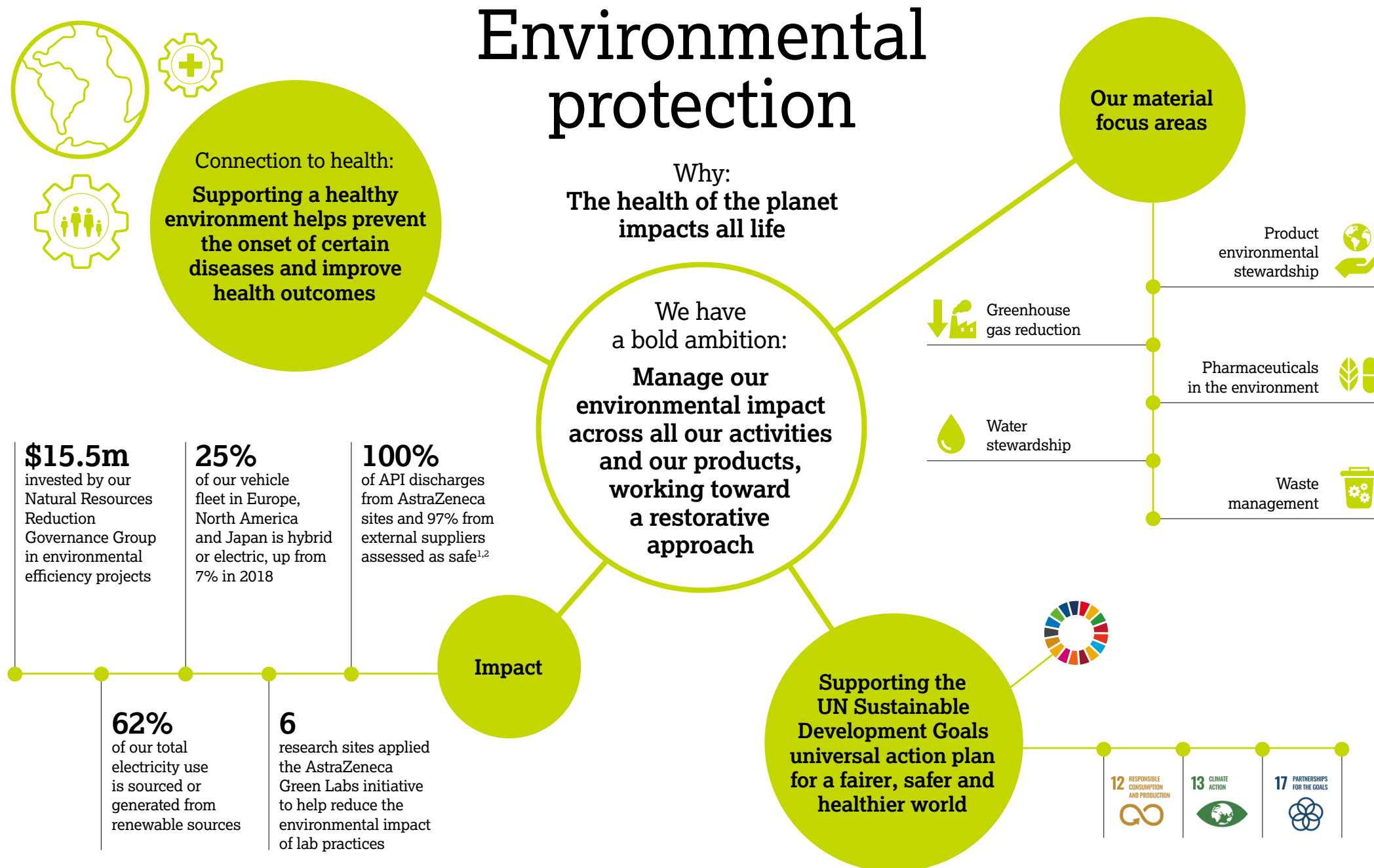
in product donations through Patient Assistance Programmes

# 61

50 value based agreements in the US and 11 in the EU









# Environmental protection overview

**Global society is depleting some of the Earth's natural capital and 1.7 planets<sup>1</sup> are needed to fulfil humanity's demand on its ecosystems. The planet's life-supporting systems and the condition for life are under threat. The time to act is now.**

We are taking action now because we recognise the strong connection between a healthy planet and healthy people. With health at the heart of our business, we work to foster environments in which all life can thrive – seeking opportunities for environmental stewardship and mitigating climate impacts by managing natural resources and ensuring environmental safety of our products across our operations and value chain. We envision a future where we help restore our planet to health by achieving zero carbon emissions.

## The big picture

Climate change is now a climate crisis. It is impacting human health and the biosphere in increasingly severe ways. The time to act is now. The United Nations cites addressing climate change as the century's greatest global health opportunity.<sup>2</sup> We are serious about taking transformative actions to protect the climate and our planet's natural resources. As a company that follows the science, we appreciate that evidence-based links between health and environmental factors are growing.



## Governance

Environmental matters are managed by Katarina Ageborg, Executive Vice-President, Sustainability and Chief Compliance Officer, President AstraZeneca AB, Sweden. The guide for our environmental management system (EMS) – our global safety, health and environment (SHE) management principles – is embedded in our Code of Ethics. Our approach is set globally and implemented locally at our sites in partnership across functions. We manage performance through assurance programmes, including performance reporting and internal auditing.

Our environmental management is based on frameworks provided by the International Organization for Standardization (ISO). Our environmental approach is compatible with ISO 14001, which is a global standard for an EMS. Some of our internal SHE auditors are trained in ISO 14001. Several operations, R&D and commercial sites are ISO 14001 certified: Shanghai, China; Milan, Italy; Macclesfield, UK; and Gothenburg and Södertälje, Sweden. Two of our largest energy and water consuming sites, Gaithersburg, US and Macclesfield, UK, are ISO 50001 certified. This means they have comprehensive energy and water management systems in place to continuously identify new efficiency opportunities.

To drive our climate action initiatives and meet our environmental targets, we have a Natural Resources Reduction Governance Group (NRRGG) fund. This fund has invested more than \$86 million in environmental efficiency innovations since 2015, including \$15.5 million for 56 new projects in 2019. We use site water stress assessments and natural resource audits to identify opportunities for management and investment.



## Material focus areas

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

- Product environmental stewardship
- Greenhouse gas reduction
- Pharmaceuticals in the environment (PIE)
- Water stewardship
- Waste management

See the Environment's impact on health section for more ways we are contributing to a healthy planet and healthier people.



## Key accomplishments

- Committed to have zero carbon emissions from our operations by 2025 and a carbon negative value chain by 2030.
- One of three companies worldwide to achieve double A Listing for Climate Change and Water Security from CDP for four consecutive years.
- 90th percentile for the Environmental Dimension indicators of the Dow Jones Sustainability Index, with scores of 100 for Environmental Reporting and 99 for Climate Strategy.
- 100% in the climate change category of the FTSE4Good Index assessment.
- Joined the Climate Group's EV100 and EP100 and committed to having 100% electric vehicle fleet and double site energy productivity by 2025.

See [Sustainability Data Summary 2019](#) for more metrics and our progress.



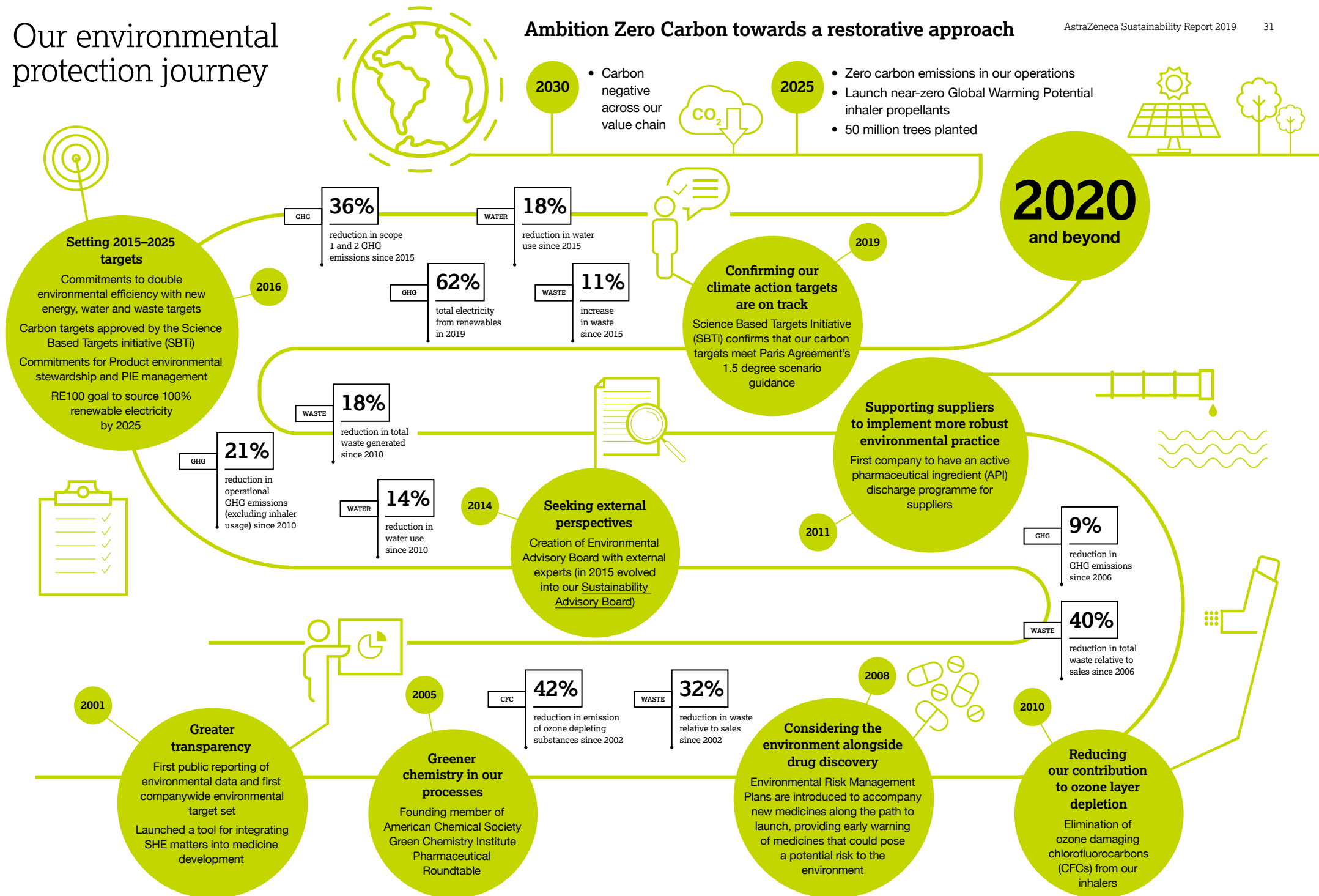


# Our environmental protection journey

## Ambition Zero Carbon towards a restorative approach

AstraZeneca Sustainability Report 2019

31







# Product environmental stewardship

## Why it matters

**AstraZeneca is responsible for its choices in raw materials sourcing, manufacture and formulation of active pharmaceutical ingredients (APIs), and device and packaging selection. Patients and society deserve products that have 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 and material use, and waste generated from delivering life-changing medicines to patients.**



## Description

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



## Business connection

As we improve our processes, we reduce the cost of goods. This allows us to reinvest in life-changing medicines and improve patient access to healthcare solutions.

Our work contributes to these Sustainable Development Goals:

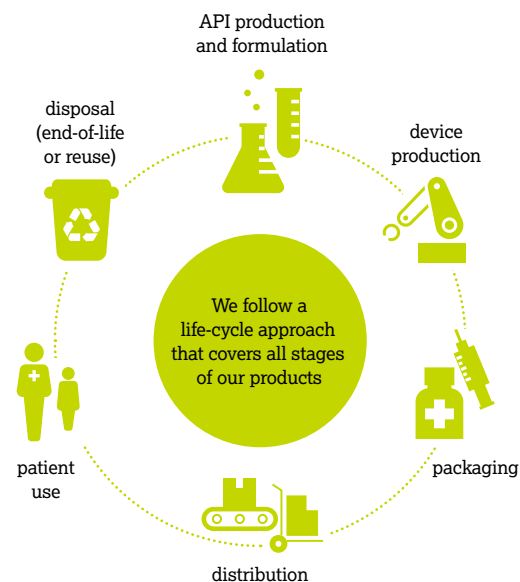


## Approach

We evaluate all materials and all processes used to make our products. By emphasising the environmental stewardship of our products, we address other material focus areas including responsible R&D, responsible supply chain, greenhouse gases, pharmaceuticals in the environment, water and waste. So, we strive to design out negative environmental impacts, including resource depletion, waste, and emissions to air, water and land.

We use a metric called process mass intensity (PMI) to measure our efficiency in materials use. 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. We set a PMI target for all small molecules drug projects to achieve at launch, based on projected peak year sales. We are working to set an equivalent target for our biologics products.

We are committed to ensuring responsible environmental management of our products, from discovery in the lab all the way through to the end of a product's life. We look for opportunities to close the production loop and ensure our products are contributing to the circular economy. We follow a life-cycle approach that covers all stages of our products:



Once we have identified the impacts of our products, we look for solutions to:

- 1 Prevent
- 2 Minimise
- 3 Render harmless any residual impacts

## Sustainability in action

### Sustainable innovation in development

Many of our employees have great ideas about how to embed sustainability into our products. To bring these ideas to life, we launched an initiative in our pharmaceutical technology and development department focused on product innovation. This initiative empowered employees by offering seed funding to develop ideas that create new opportunities to deliver sustainable innovations that align to our sustainability strategy and push the boundaries of science. Five winners were selected with projects aligned to our Environmental protection priorities to reduce natural resource use and ensure the environmental safety of our products. One proposed eco-friendly plastic materials in devices and primary packaging.

▼ A devices team discusses the environmental stewardship of a product





# Product environmental stewardship continued

## Sustainability in action

### Life-cycle assessment (LCA) identifies smart chemical process

LCA is a tool used by chemical development scientists to improve environmental sustainability in chemical processing. LCA performance can be significantly improved during drug development through selection of preferred manufacturing technologies, chemistries and control of processing steps – an activity known as Process Design. Consideration of innovative pharmaceutical manufacturing technologies, such as continuous processing, can broaden the scope of accessible chemistry, improve process safety and reduce energy consumption and cycle times.

For one of our new CVRM medicines during clinical trials, Process Design reviewed a traditional batch process for a common synthetic intermediate and an alternative continuous process. A LCA of both options established that the continuous process offered far superior environmental performance when compared to the batch process across the main criteria. Scientifically robust data is valuable for our scientists to be able to make timely decisions with confidence. It also justifies a potential disruption to the development of manufacturing processes. LCA results encourage the adoption of innovative, cleaner technologies that could impact several medicines.

### LCA shows improvements of flow process vs. batch

For a common intermediate during a medicine's development:

**82%**  
less CO<sub>2</sub>  
(kg/kg)

**92%**  
less water  
(kg/kg)

**88%**  
less energy  
(MJ/kg)

### Green chemistry in the laboratory – Recycled CO<sub>2</sub> replaces toxic substances

Scientists at our Gothenburg site in Sweden have reduced the environmental footprint of a purification process used in pre-clinical and early clinical phase manufacture. This significantly decreased Process Mass Intensity (PMI) for most projects and decreased by 80% overall solvent consumption and waste from the laboratory.

Purification is a critical step in manufacturing drug substance of the correct quality. The traditional purification process uses expensive and toxic solvents such as heptane. The lower PMI, solvent, and waste results were achieved by implementing Supercritical Fluid Chromatography for all large-scale purifications. This replaces toxic solvents with recycled CO<sub>2</sub> captured from the waste streams of other industries.



## Targets

### 2019 target

Develop and pilot a product environmental sustainability index



Status: Achieved

### 2019 update

We created a scoring methodology for the index, which helps us rate the environmental performance of our medicines and piloted it for several products

### 2020 target

Develop resource efficiency targets for biologic products



Status: Lagging

### 2019 update

Following an organisational change, we re-established our internal cross-functional green biopharma network to develop targets

### 2022 target

95% of paper-based product packaging materials used will be from sustainable sources



Status: Not yet started

### 2019 update

We set this new target and planning is initiated to engage suppliers and report progress

### 2025 target

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



Status: Lagging

### 2019 update

There were no in-scope product launches in 2019. Since 2015, one of two projects have met resource efficiency targets at launch. We reduced PMI by 26% across the late stage portfolio

## Challenges

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 we could transition to a circular model and more sustainable sources.

## Highlights

### Next-generation inhalers

Our pressurised metered-dose inhalers (pMDIs) account for a significant portion of our greenhouse gas emissions. In response to this, we have committed to launching our next-generation inhaler to treat asthma and COPD with near-zero Global Warming Potential propellant by 2025. We will invest to transition our pMDI medicines to a next-generation pMDI inhaler. We expect the new propellant to have a carbon footprint that is 90–99% lower than propellants in older pMDIs by offering both next-generation pMDIs and dry powder inhaled (DPI) medicines. We recognise that pMDIs are an important therapeutic option for patients, particularly where familiarity with the device, limited lung function, young or advanced age or reduced dexterity or cognition, are considerations.

### Product carbon footprint minimised by renewable power purchase

In line with our RE100 commitment, our internal manufacturing site for one of our recently launched CVRM medicines will switch to source 100% renewable power in 2020. A LCA has shown that this will reduce the annual carbon footprint for a daily dose by 43%.



# Greenhouse gas reduction

## Why it matters

**Greenhouse gases (GHGs) from human activity are the major cause of climate change over the prior half century.<sup>1</sup> Climate change has the potential to reverse the remarkable global health gains achieved in the past 50 years.**

The good news is that solutions to climate change have direct and indirect health benefits – from reducing air pollution to improving diet – representing great opportunities to improve global health.<sup>2</sup> The time to act on climate change is now.

## Description

Company operations, such as manufacturing and transportation, emit GHGs including carbon dioxide (CO<sub>2</sub>), methane (CH<sub>4</sub>) and hydrofluorocarbons (HFCs), contributing to climate change. Emissions from product use are largely discussed in the Product environmental stewardship section, and we account for this emissions source in our value chain GHG footprint.

## Business connection

Addressing this issue is a business imperative, as climate change is projected to have detrimental impacts on workforce health and productivity.<sup>3</sup> An initial study from 2019 on climate physical risks to our activities, indicates the need for detailed site analysis to prepare for a smart adaptation to climate related hazards such as droughts, floods and extended hot periods. As governments set and implement emissions targets, we may become exposed to transition risks and opportunities, for example due to customer demand for low carbon products.

Our work contributes to these Sustainable Development Goals:



Colleagues gathered to plant 5,000 trees in southern Portugal ►

## Approach

We are decarbonising business now by taking actions to eliminate GHG emissions from our sites and fleet by 2025 without carbon credits and by becoming carbon negative across our entire value chain by 2030. We also seek ways to build climate resiliency.

As a company that follows the science, we use it to inform our climate strategy. We set science-based GHG emissions reduction targets in 2015, and in 2016 we were one of the first companies in the FTSE 350 to have them approved by the Science Based Targets initiative (SBTi), which means that our targets are in line with the level of decarbonisation required to keep global temperature increase below 2 degrees Celsius. In May 2019, we received confirmation from SBTi that our GHG Scope 1 and 2 targets are consistent with reductions required to keep warming to 1.5 degrees Celsius, the most ambitious goal of the Paris Agreement. Our Scope 3 targets are aligned with current best practice. With the launch of our Ambition Zero Carbon strategy in January 2020 we have accelerated all of our decarbonisation plans.

We use the WRI/WBCSD Greenhouse Gas Protocol guidance to group our sources of emissions into Scope 1, Scope 2, and Scope 3, and we use the Institute of Environmental Management and Assessment GHG hierarchy approach<sup>4</sup> to guide priority activity (see graphic to the right).

Our greatest source of emissions is Scope 3, which are emissions from our supply chain and product use. It is also our greatest opportunity to address our climate-related impacts. We use our influence to mobilise our extensive global supply chain to reduce GHGs.

## Addressing our GHG footprint in action:

Vehicle fleet of AstraZeneca and our suppliers

### Avoid



Increase the use of virtual meeting technology to avoid some journeys

Next step

### Reduce



Lower the emissions intensity per km driven by using electric vehicles

Next step

### Substitute



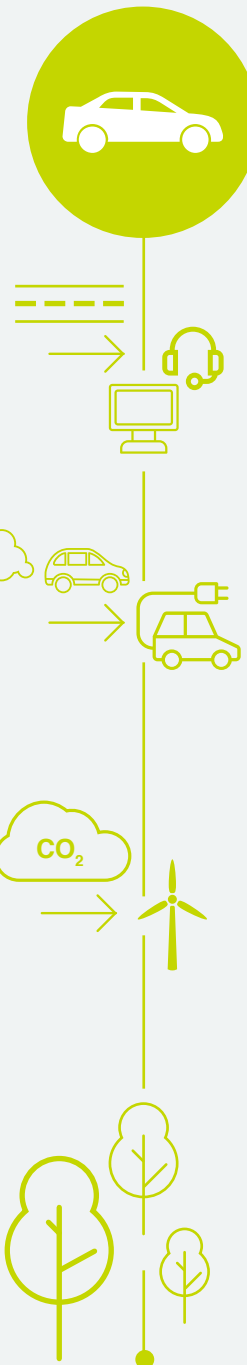
Change the electricity or fuel source to a lower carbon alternative such as biogas or hydrogen fuel

Last resort

### Compensate



Invest in carbon removal programmes in near-term for our supplier footprint until better solutions are available








# Greenhouse gas reduction continued

## Reducing emissions across our value chain

### Sustainability in action


#### Our Ambition Zero Carbon


Our Ambition Zero Carbon strategy is to take climate action now for healthy people and a healthy planet, by becoming carbon negative across our entire value chain by 2030.


 **Zero carbon emissions from our global operations (sites and fleet) by 2025 without offsets**


 Double energy productivity by 2025


 100% electric vehicle fleet by 2025

 Use 100% renewable energy for power and heat by 2025

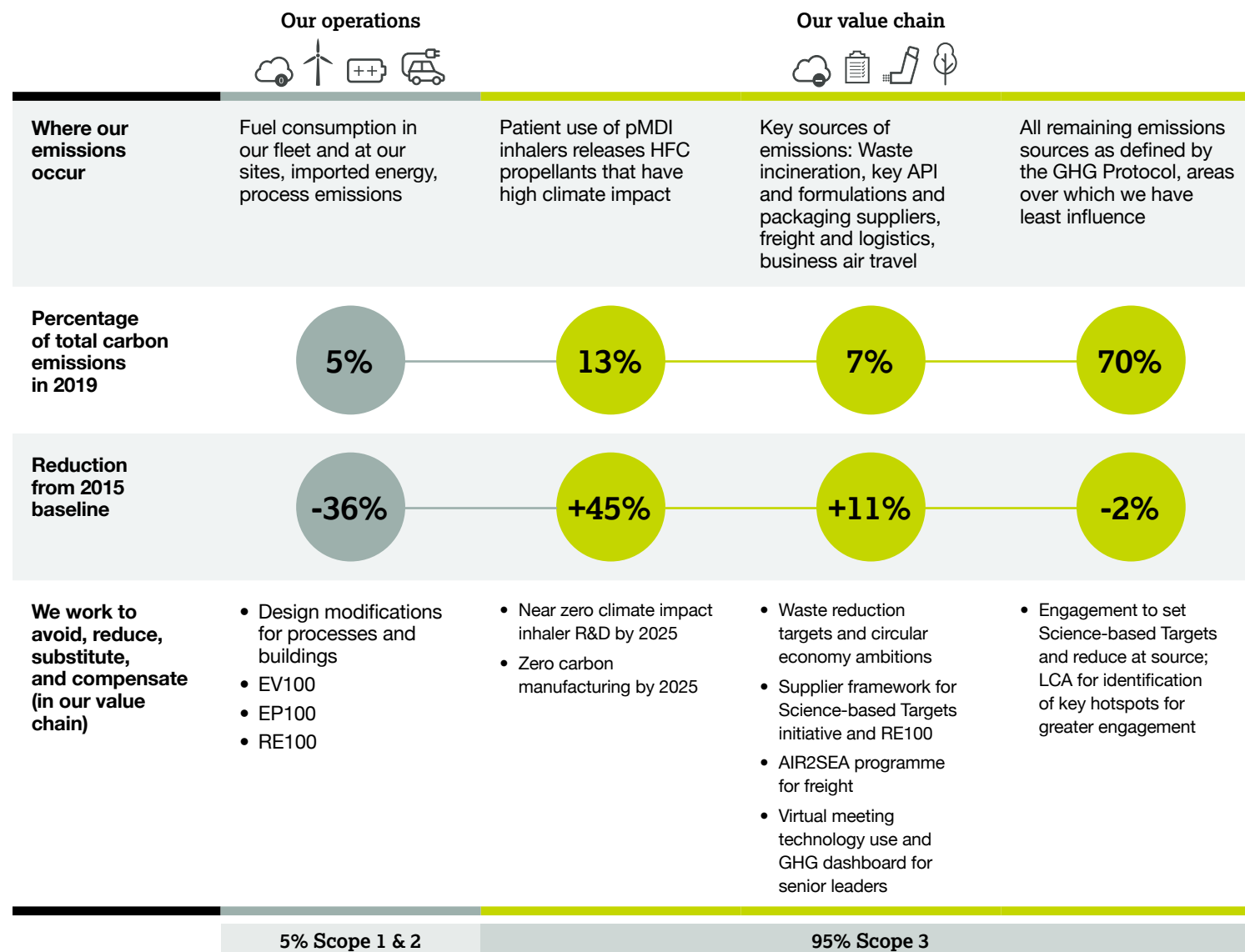
 **Carbon negative value chain by 2030**

 Launch next-generation respiratory inhaler to treat asthma and COPD with near zero climate impact propellants by 2025

 Advocate for policy and cross-industry solutions

 Plant 50 million trees to absorb CO<sub>2</sub> from the atmosphere

Our operations (Scopes 1 and 2) are where we have the most control, and through avoiding, reducing and substituting we will ensure zero emissions from our sites and ground fleet by 2025. Across our value chain (Scope 3) is where we can have the biggest impact, but it's also where we have the least control. Ambition Carbon Zero outlines how we will build on our current progress to become carbon negative across our entire value chain by 2030.





# Greenhouse gas reduction continued

## Sustainability in action

### The road to a healthy planet and healthier people through our fleet

We joined The Climate Group's EV100 electric transport initiative and EP100, its energy productivity initiative. We also belong to The Climate Group's RE100 initiative where our goal is to source and use 100% renewable electricity globally by 2025; we are currently at 62%. We are the 50<sup>th</sup> company to join EV100 and the first pharmaceutical company to join all three of the groups. By 2025 we expect to have 16,000 electric vehicles, with the switch saving the planet over 80,000 metric tonnes of CO<sub>2</sub> every year.

This new commitment builds on our existing Green Fleet initiative, where we committed to achieve a 100% hybrid or EV fleet in Europe, North America and Japan by 2025. As of the end of 2019, we are at 25%. We are installing the necessary charging infrastructure with charging points in Sweden (280), US (104), UK (30) and 9 rapid-chargers at our Netherlands offices.

*"Recognising the link between a healthy environment and human health, we believe that by investing in electric vehicles and emissions-reduction initiatives, we can help reduce the burden of respiratory diseases and other air pollution-related conditions."*

Katarina Ageborg, EVP, Sustainability

## Our Only Future

We're one of 87 companies that has responded to a call-to-action on climate by the United Nations Global Compact (UNGC). As part of this group, we have committed to set climate targets across our operations and value chains aligned with limiting global temperature rise to 1.5°C above pre-industrial levels and reaching net-zero emissions by no later than 2050. The [Our Only Future campaign](#) is a natural step on our carbon strategy, as our targets were previously below the 2°C level.

A full description of our GHG emissions methodology is in our [Sustainability Data Summary](#).



Charging stations are available at many of our sites globally ▲



## Targets

### 2022 target

Maintain operational GHG footprint no greater than 2015 levels



Status: On plan

### 2019 update

Operational GHG footprint totalled 1,975 ktCO<sub>2</sub>e, an increase of 7%

### 2025 target

100% renewable power consumption by 2025 globally with an interim target of 100% in the EU and US by 2020



Status: On plan

### 2019 update

62% of our total electricity use is sourced or generated from renewable sources

### 2025 target

100% hybrid or electric vehicle fleet in Europe, North America and Japan



Status: On plan

### 2019 update

25% of our fleet in North America, Europe and Japan is a hybrid or electric vehicle

### 2025 target

Achieve science-based carbon emissions reductions from 2015 baseline



Status: On plan

### 2019 update

11% reduction in absolute Scope 1 emissions; 60% reduction in absolute Scope 2 emissions; 2% increase in Scope 3 intensity

### 2025 target

Reduce energy consumption by 10% against a 2015 baseline



Status: On plan

### 2019 update

Energy used was 1,749 GWh, a 4% decrease



## Challenges

We are committed to following a pathway to negative emissions across our value chain by 2030, and sooner where possible for specific emissions sources. This will only be achievable by engaging suppliers to reduce their direct emissions and working to implement carbon removal options that will lead to more CO<sub>2</sub> being removed from the atmosphere than added to it. The scale of engagement necessary to make urgent progress on the decarbonisation pathway across our value chain is unprecedented.



## Highlights

### CDP Climate Change 'A' List

We earned an 'A' List rating for the 4<sup>th</sup> consecutive year from CDP for climate change performance and transparency.

### What is your food footprint?

The food we consume contributes to climate change, but the actual carbon footprint is usually invisible. We make your carbon food footprint visible in our Gothenburg cafeteria. All dishes are labelled based on their carbon footprint. This gives our workforce the knowledge to choose dishes with lower impact. The initiative is led by Sodexo in cooperation with Klimato.

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



# Pharmaceuticals in the environment

## Why it matters

**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 impacts on wildlife.**

Pharmaceuticals enter the environment mainly when medicines are excreted by patients and end up in our waterways and in sewage sludge applied to land as a fertiliser. Waste from manufacture and formulation of active pharmaceutical ingredients (APIs) and the improper disposal of unused medicines also add to the trace levels of pharmaceuticals in rivers, lakes, soils and, in some instances, drinking water. This topic is gaining increased attention on the international stage. The United Nations has identified pharmaceutical pollution as an emerging global priority under its Strategic Approach to International Chemicals Management.

## Description

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

## Business connection

We must determine the risks associated with pharmaceuticals in the environment (PIE) to ensure the safety of our products throughout their life-cycle, from drug discovery and drug manufacture, to regulatory approval, patient use and disposal. If we do not manage these risks, and one of our medicines were to pollute and adversely impact the environment, this could incur reputational damage and financial losses that could take resources away from producing our life-changing medicines. Environmental hazards and risks also have the potential to restrict patient access to medicines.

Our work contributes to these Sustainable Development Goals:



## Approach

We are committed to the health and safety of the planet and people. We must understand and manage PIE to ensure that our medicines cause no negative impacts on the environment.

We lead our industry in the management of PIE-related concerns. We are the only company with published targets describing safe discharge limits for drug production and formulation facilities that are externally verified. We were the first company to publish environmental risk assessment (ERA) data on our website. We are the only company with a published approach to ecopharmacovigilance (EPV). EPV ensures that we follow the science and 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, we concluded, by using established scientific approaches, that in almost all cases these APIs currently pose low or insignificant environmental risk. However, 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 will monitor whether increases in the global population, urbanisation or changes in disease epidemiology and demographics will change these risks in the future.

We know we do not have all the answers so we look externally to stimulate conversations and research to encourage responsible and collective action.

For more information see our [PIE Position Statement](#) or the [Product environmental stewardship](#) section.



## Targets

### 2025 target

Lead the industry to manage pharmaceuticals in the environment

Status: On plan

### 2019 update

- EPV programme to monitor product risks post-launch ran through 2019 with no significant risks identified
- Co-authored 12 peer-reviewed publications on PIE
- 100% of API discharges from AstraZeneca sites demonstrated as safe<sup>1,2</sup>
- 97% of API discharges from globally managed direct suppliers demonstrated as safe<sup>1</sup>

▼ API Plant in Macclesfield, UK







# Pharmaceuticals in the environment continued

## Sustainability in action

### Stakeholder engagement in Kenya

In partnership with the University of Cambridge Institute for Sustainability Leadership, we convened stakeholders in Nairobi, Kenya to discuss PIE in the context of developing economies. Participants included government and inter-governmental agencies, non-governmental organisations, academia and industry with responsibilities for the management of healthcare and environmental resources. These discussions focused on actions needed to manage the environmental risks posed from the increased use of pharmaceuticals in low- and middle-income countries, especially considering that access to healthcare is increasing. In many cases, adequate environmental infrastructure and regulation is not in place to manage some of the environmental risks that patient access poses. The aim of the workshop was to create a common vision, shared goals and an action plan to help ensure that access to medicines is managed in an environmentally sustainable manner. Access to healthcare, together with environmental protection and ensuring the environmental safety of our products, are interconnected components of our sustainability strategy and they cannot be considered in isolation.



### Innovative Medicines Initiative (IMI) on PIE

The IMI is a public-private partnership between the European Commission and the innovation-based pharmaceutical industry (Efpia). In June 2019, the five-year IMI Intelligent Assessment of PIE (iPiE) project concluded. Notable achievements that AstraZeneca contributed towards include:

- A high quality database on APIs ([iPiESUM](#)), including mainly industry sponsored studies for environmental fate, effects and behaviour of APIs, which had not been publicly accessible previously.
- A [review](#) of the consumption-based environmental risks for more than 120 APIs across Europe highlighting that, even with worst-case exposure assessments, less than 5% of drugs posed an environmental risk. The review highlighted significant data gaps for some modes of action.
- A [review](#) of prioritisation approaches used to assess the hazard and risk of pharmaceuticals.
- A [database](#), which reflects the presence of pharmacological targets of APIs across environmental taxa with published genomes.

### Challenges

The continued presence of drug residues in the environment is causing concern for the industry. As limits of detection in environmental chemistry improve over time, more drugs and other chemicals are likely to be detected in a wider range of drinking, surface and ground waters as well as soils and sediments. This will require a wider societal discussion on the environmental and human health risks that this poses.

There are increasing regulatory pressures including proposals from the European Parliament and the OECD to include environmental hazard and risk within the approval of new medicinal products. This poses some challenges to the current regulatory and industry approach as ERAs are inherently conservative, i.e. they over-estimate environmental exposure and risk in up to 95% of cases; and ERAs are conducted late in drug development after significant investment and once patient efficacy and safety have been established. There are also calls to backfill ERA data for drugs approved before 2006 when the current EMA ERA guidelines came into force. Many drugs approved before 2006 lack long-term environmental toxicology data and it is estimated that there is a \$1 billion environmental data gap. The IMI PREMIER project that will start in 2020, aims to address these challenges by developing tools and models that could be integrated earlier within drug development or help prioritise legacy drugs for environmental testing.

### Highlights

#### Reducing fish testing

[Data](#) published by an AstraZeneca partnership contributed to the revised EMA ERA guidelines that remove the need for fish testing for antibiotics.

#### Ecopharmacovigilance visualisation

Prototype EPV data visualisation tool developed with Simomics using an Innovate UK grant.

#### Scientific papers published to advance PIE management:

- The [largest compilation of ERA data](#) for human medicinal products covers environmental toxicology data and associated consumption-based environmental risks for over 120 APIs in Europe.
- Description of the [environmental risks of metformin](#) and its transformation product guanylurea.
- [Applying machine learning](#) to predict bioconcentration in aquatic invertebrates.
- Two papers focus on emerging markets.
  - [Predictive modelling to estimate the environmental risks](#) resulting from patient use in China.
  - [Monitoring pharmaceutical residues in the River Nairobi](#) catchment in Kenya to determine the risks that patient use poses in a region with a low level of sewage and wastewater treatment.

Visit our [website](#) to learn more about the risks associated with PIE and what we are doing to manage them.



# Water stewardship

## Why it matters

**Water is fundamental to life. Not only does water regulate 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.<sup>1</sup>**

Unfortunately, the world is facing a water crisis. According to the World Health Organization, approximately 30% of people lack access to clean, reliable drinking water.<sup>2</sup>



## Description

Company operations can have adverse impacts on water. In water-stressed regions, water quality and availability risks may be more pronounced for local stakeholders and company operations. This also includes responsible wastewater discharge of active pharmaceutical ingredients. We address water impacts from the use of our products in the [Pharmaceuticals in the environment](#) section.



## Business connection

We need water to develop and manufacture our products, so it makes business sense for us to manage this resource responsibly. Some of our sites are situated in water stressed areas, making the need for responsible management even more of a business imperative. The World Health Organization estimates that for every dollar invested in water and sanitation, there is a \$4.3 return in the form of reduced healthcare costs for individuals and society around the world.<sup>3</sup>

Our work contributes to these Sustainable Development Goals:



## Approach

As a company that puts health first, we strive to use water efficiently and responsibly. Our approach is informed by the World Resources Institute (WRI) Aqueduct tool. This tool identifies and evaluates water risks around the world. Based on this information, and water use data across our facilities, we:

- 1 Conduct water audits at our major sites to identify water-saving opportunities.
- 2 Produce water conservation plans for all our major sites and those in water-stressed areas. These plans highlight water risks and mitigation measures.
- 3 Set a target to maintain absolute water use at the 2015 level through 2025. We prioritise water efficiencies in water-stressed areas. Since setting the target, we've implemented:
  - Water audits at 11 sites, including Yelahanka, Bangalore; Shanghai, China; and Canóvanas, Puerto Rico.
  - Rainwater harvesting at five sites: Wuxi, China; Cambridge, UK; Macclesfield, UK; Canóvanas, Puerto Rico and Frederick, MD, US.

Our on-site and off-site wastewater treatment methods are designed to protect the local environment. We do this by removing most of the residual chemical oxygen demand (COD), which is the amount of oxygen required to oxidise organic matter in wastewater. This is important because high COD loads can reduce the oxygen in water bodies, which could damage aquatic life. We measure the COD of wastewater as it leaves our sites.

This year our COD was 405 tonnes, a decrease of 26% from 2018. This reduction was primarily due to the divestment of one of our biological manufacturing sites.






# Water stewardship continued


## Sustainability in action

### Employees fight droughts and floods in Chennai, India

The city of Chennai, India and our colleagues who live and work there are experiencing intensifying water shortages in the dry season followed by deadly flooding in the rainy season. This water crisis has dried up reservoirs and they have been converted to rubbish dumps. The seasonal monsoon waters have nowhere to go, and therefore flood the city. Employees in Chennai felt these impacts and they enacted our value of 'doing the right thing' by reaching out to the Environmentalist Foundation of India (EFI), a wildlife conservation and habitat restoration group. Together, EFI and AstraZeneca Chennai are restoring lakes in Chennai to be used as sources for clean water. EFI engages the community that will benefit from lake restoration and involves members in clean up, planting and biodiversity restoration projects. EFI, AstraZeneca and its community co-created the solutions, and all take ownership to ensure the longevity of these lake restoration projects.

In 2019, we restored two lakes that cover approximately 2 acres of land – in a lake in Velachery (shown at right) and a lake in Sholinganallur that is three times the size.

 Employee volunteers helped plant protective trees

 Cleaned up more than 40 tons of rubbish

 Removed eight tons of hyacinth, an invasive species that can be harmful

#### Lake in Velachery

This former dumping site has been transformed to a full refurbished water body

▲ Lake in Velachery before  
▼ Lake in Velachery after

Water level has increased 1.5 times (150%) since the beginning of the project



## Targets

### 2025 target

Maintain absolute water use at 2015 baseline levels



Status: On plan

### 2019 Update

Water footprint was 3.55 million m<sup>3</sup>, an 18% reduction from 2015

### Absolute water use (million m<sup>3</sup>)

2015:	4.32
2016:	4.02
2017:	3.89
2018:	4.01
2019:	3.55

## Challenges

Water stress presents direct risk to our operations – our business requires continuous access to reliable water sources to produce life-changing medicines. 11 of our operations sites are in high water stress areas (see map), a situation that might escalate at some locations due to climate change and economic growth. Water scarcity has the potential to cause temporary site shut-downs in our site network or supply chain. Additionally, as a significant water consumer in some catchment areas, our licence to operate could be damaged during periods of water scarcity.

## Highlights

### Science-based water targets

In partnership with World Wide Fund for Nature (WWF) and WRI, we are developing contextual-based targets for water stewardship to ensure targets drive the intended impact.

### CDP Water Security 'A' List

We earned an 'A' List rating for the 4<sup>th</sup> consecutive year from CDP for water security performance and transparency.

### Smart meters

Water submeters have been installed in Gaithersburg, MD, US. These will give real-time water use data in the most water-intensive parts of the site – the pilot manufacturing plant and laboratories. Using this data, we expect to identify efficiency opportunities and initiate projects to unlock future water savings.

▼ A smart meter in Gaithersburg, MD, US has the potential to identify opportunities for future water saving innovations







## Site water stress assessment

We have developed a standard methodology to assess water risk at every site. Based on the WRI Aqueduct tool, it has enabled us to broaden our understanding of our water-related risks and identify priorities for investment. We prioritise implementing water-efficiency projects, identified through audits, in water-stressed areas.

### Sites\*

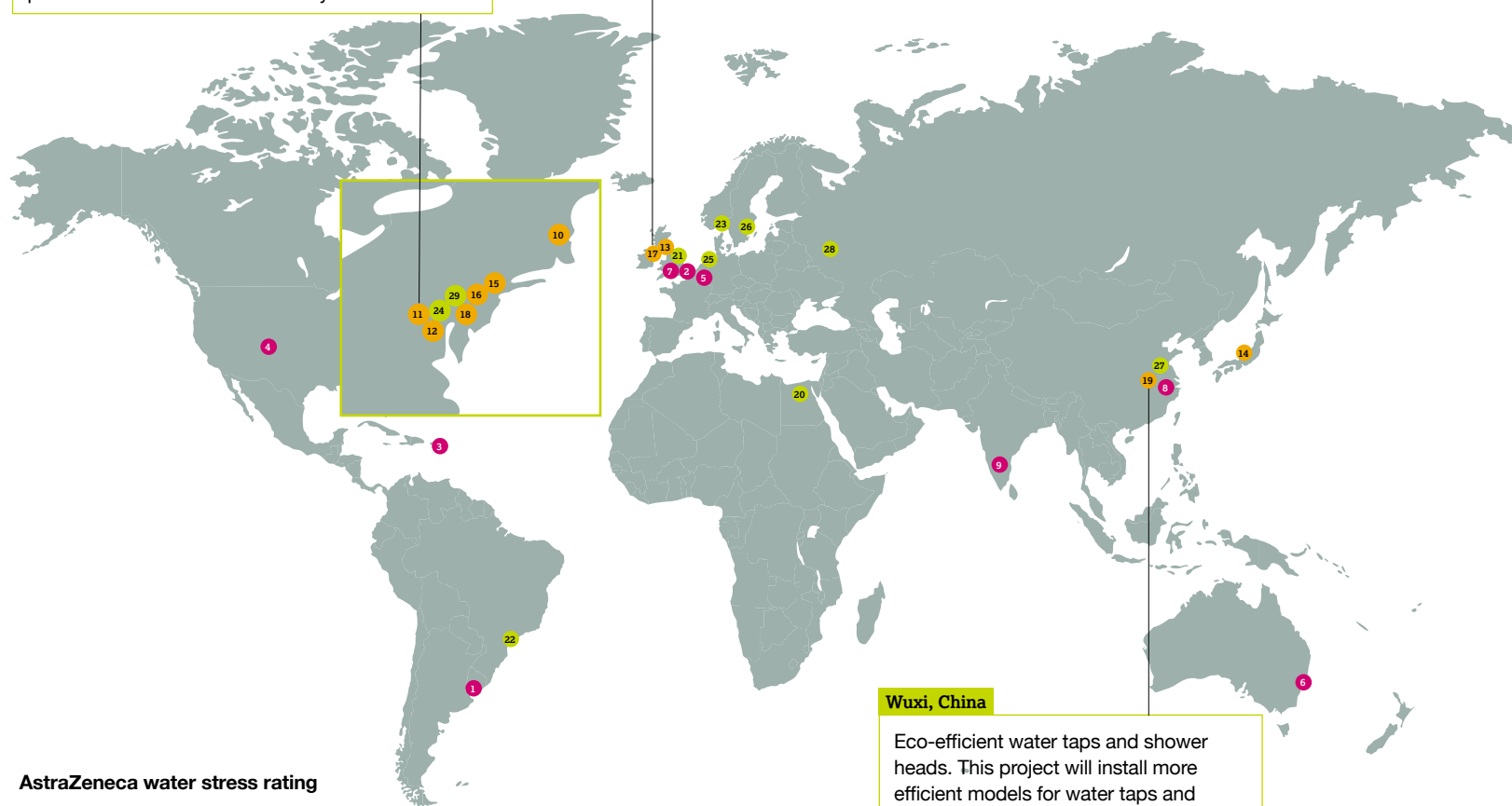
- 1 Buenos Aires, Argentina
- 2 Cambridge, United Kingdom
- 3 Canóvanas, Puerto Rico
- 4 Colorado, United States
- 5 Dunkirk, France
- 6 North Ryde, Australia
- 7 Luton, United Kingdom
- 8 Shanghai Zhangjiang, China
- 9 Yelahanka Bangalore, India
- 10 Boston, United States
- 11 Frederick, United States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

### Frederick, Maryland, USA

Modifications to Clean-In-Place (CIP) equipment and process automation. CIP is a method of cleaning the inside of pipes, vessels, and filters without having to take the equipment apart. Improvements are focused on reducing rinse timers and recycling rinse water. As the water used in CIP is highly purified, the reduction in water consumption will also result in significant energy savings, equivalent to 1,600MWh – enough to power 130 homes in the US for a year.

### Speke, UK

A clean steam generator uses purified water to generate steam for cleaning. The project involved installing a closed loop system to cool the clean steam generator, replacing the previous once-through cooling system. It will divert 6,400m<sup>3</sup> of water a year from the drain and reduce the site's water consumption by 25%.



\* Sites evaluated for water stress use over 10,000m<sup>3</sup> of water per year

### Wuxi, China

Eco-efficient water taps and shower heads. This project will install more efficient models for water taps and shower heads. These modifications will divert 8,600m<sup>3</sup> from being used each year and reduce the site's water consumption by 6.5%.



# Waste management

## Why it matters

**Waste is accumulating across the world at an increasing rate. Waste is the result of a linear use of resources and has the potential to pollute, both of which can lead to negative impacts on the planet and people.**

Improperly disposed waste can cause respiratory diseases and other adverse health effects, as contaminants are absorbed from lungs into other parts of the body.<sup>1</sup> Waste can also contaminate surface water and marine environments, leading to negative impacts for humans and ecosystems. Packaging plays a vital role in ensuring our products reach patients safely, and we recognise that there is growing concern from stakeholders – including employees – to minimise plastic and packaging. See [Product environmental stewardship](#) for more.

## 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.



## Business connection

Reduction of waste makes business sense because it increases efficiency, saves us money and reduces human and environmental risks. We realise that if we want to be a company that is around in 20 years, we must embrace movements like the circular economy to balance the use of natural resources to what the Earth can sustainably reproduce and regenerate.

Our work contributes to these Sustainable Development Goals:



Recycle the value: An example of waste segregation in our campuses ►



## Approach

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

- 1 Production:** Product design (see PMI) and process innovations to decrease waste by-products created during manufacturing; solvent recovery systems recycle reducing the need for raw materials.
- 2 On-site with employees:** Employees identify waste elimination projects and implement process changes or apply for funding from the Natural Resources Reduction Governance Group.
- 3 Disposal:** We work to the waste hierarchy, maximising opportunities to reuse and recycle where possible.

We are exploring circular business models to maximise resource efficiency to a rate at which the Earth can regenerate. Avoiding, Reducing, Reusing and Recycling are our strategies to increase material efficiency and reduce waste.

	Waste (tonnes)		Total waste
2019	11,478	22,715	34,193
2018	10,156	20,925	31,080
2017	10,592	20,607	31,199

- Hazardous waste
- Non-hazardous waste

## Sustainability in action

### Creating a culture of sustainability in the labs

At AstraZeneca, we want to innovate new medicines for patients in sustainable ways, and how we work in the lab makes a difference. From washing glassware to disposing of gloves, everything we do in our labs contributes to our environmental footprint. This year, we started a global Green Labs initiative across six of our research sites, in partnership with the not-for-profit organisation, [My Green Lab](#).

**Through the programme and My Green Lab certification process, scientists learn about and assess our lab practices with respect to waste, energy, water and chemicals, so we can continuously improve our environmental footprint.** Over 900 scientists around the world have been engaged in this certification programme so far. Each of our research facilities is actively pursuing ways to reduce and better manage waste. At the Gaithersburg, MD, US site, 97% of biowaste is recycled, resulting in more than 135,000kg of waste recycled. In Cambridge, various programmes have targeted recycling of specific plastics: falcon tubes – potentially saving 21,000 tubes from incineration per year, bulk pack stripette recycling – saving approximately 19,000 single use plastics per year, and Winchester lid recycling – recycling over 10,000 per year. We have seen how this programme allows us to share best practices and helps scientists see environmental impacts that were perhaps invisible before, as well as make their own sustainability ideas reality. And in turn, this will lead to behavioural changes in and around the lab with measurable results.





# Waste management continued

## Sustainability in action

### From single-use to reusable thermal packaging

Each year, we send 60,000 products to hospitals and clinics for clinical trial distribution. It involves a huge amount of packaging. The original process used a box the size of a small table, each containing 15kg of packaging that had to be thrown away after delivery and recipients were responsible for its disposal. Our distribution partner told us that reusable thermal packaging was available, but other companies had tried it unsuccessfully – only 50% of sites sent the box back, and the remaining were charged to the sponsor as lost boxes. We decided to work with our distribution partner to develop a new approach involving a returns process. We collaborated with sites and shipping companies to ensure the returns process would work. Some simple ideas included asking our distribution contact to use the brightest coloured paper for returns instructions – a pink envelope would get more attention than just a white sheet of paper. We started with a pilot, followed by roll-out across 35 countries.

#### The results:



**98% returns rate** (target of 80%)  
**\$3.9 million** cost savings



**Saved packaging waste** equivalent to the weight of 747-jumbo jet

*“We’ve now done about 40,000 shipments (two jumbo jets worth), and it’s proved that the process is scalable without anyone having to hold its hand. That, to me, is what makes it truly sustainable.”*

Chris Jones, Clinical Distribution Lead

### Transition away from single-use plastics

We tackle waste generation by collaborating inside and outside our organisation. At our sites, we are coordinating to quantify and remove avoidable single-use plastics (SUPs) in food service, cleaning and office areas. In 2019, initiatives across our sites removed over two million pieces of plastic cutlery with compostable or reusable alternatives, and an initiative at Macclesfield reduced over one million small milk containers by moving to larger bottles and integrating milk into drinks machines.

Our Gaithersburg site, MD, US has removed virtually all SUPs from food service areas. For 2020, we have signed on to the UK National Health Service (NHS) Plastics Pledge across all our R&D and operations sites.

*We pledge to end purchase of SUP stirrers and straws by April 2020; end purchase of SUP cutlery and plates, and certain cups by April 2021; and reduce SUP food containers and other plastic cups and lids by April 2021.*

We participate in external partnerships to gain insights and share our learnings:

- We are part of the UK Research and Innovation Circular Economy Approaches to Eliminate Plastic Waste team, awarded \$1.25 million from the Plastics Research Innovation Fund.
- We are a key collaborator in the RE3 Rethinking Resources and Recycling project led by Manchester University to innovate new ways of making, using and recycling plastics.



## Challenges

Growing production levels have generated increased waste volumes of both hazardous and non-hazardous waste. As production levels are projected to continue to grow, achieving our total 10% reduction target will be a challenge. We continue to seek ways to decouple business growth from waste generation through less material-intensive APIs, and device and process design, as well as building material loops by recycling for future sustainable sourcing.



## Highlights

### Circularity collaboration

In Gothenburg, Sweden, we are part of a circular solution for paper hand towels in washrooms. Previously, towel bins were mixed with other waste materials and the contents inside the plastic bin bag were incinerated. Partnering with our towel supplier and the local municipality, we now send our towels back to the manufacturer where they are pulped and recycled into new paper products. Our colleagues changed behaviours to eliminate contamination from towel bins. As the bins now contain exclusively paper towels, we can eliminate approximately 130,000 plastic bags from the site each year. This circular model has also reduced the carbon footprint of hand towels by more than 40%.

### Turning medical waste into products

We produce waste in our labs and its disposal can have huge environmental impacts. To turn waste from a problem to a resource, we joined the Red2Green recycling program in Gaithersburg. This takes our regulated medical waste and turns it into plastic lumber material which is manufactured into speed bumps, farm tools, park benches, and more.



## Targets

### 2025 target

Reduce waste by 10% below the 2015 baseline



Status: Lagging

### 2019 update

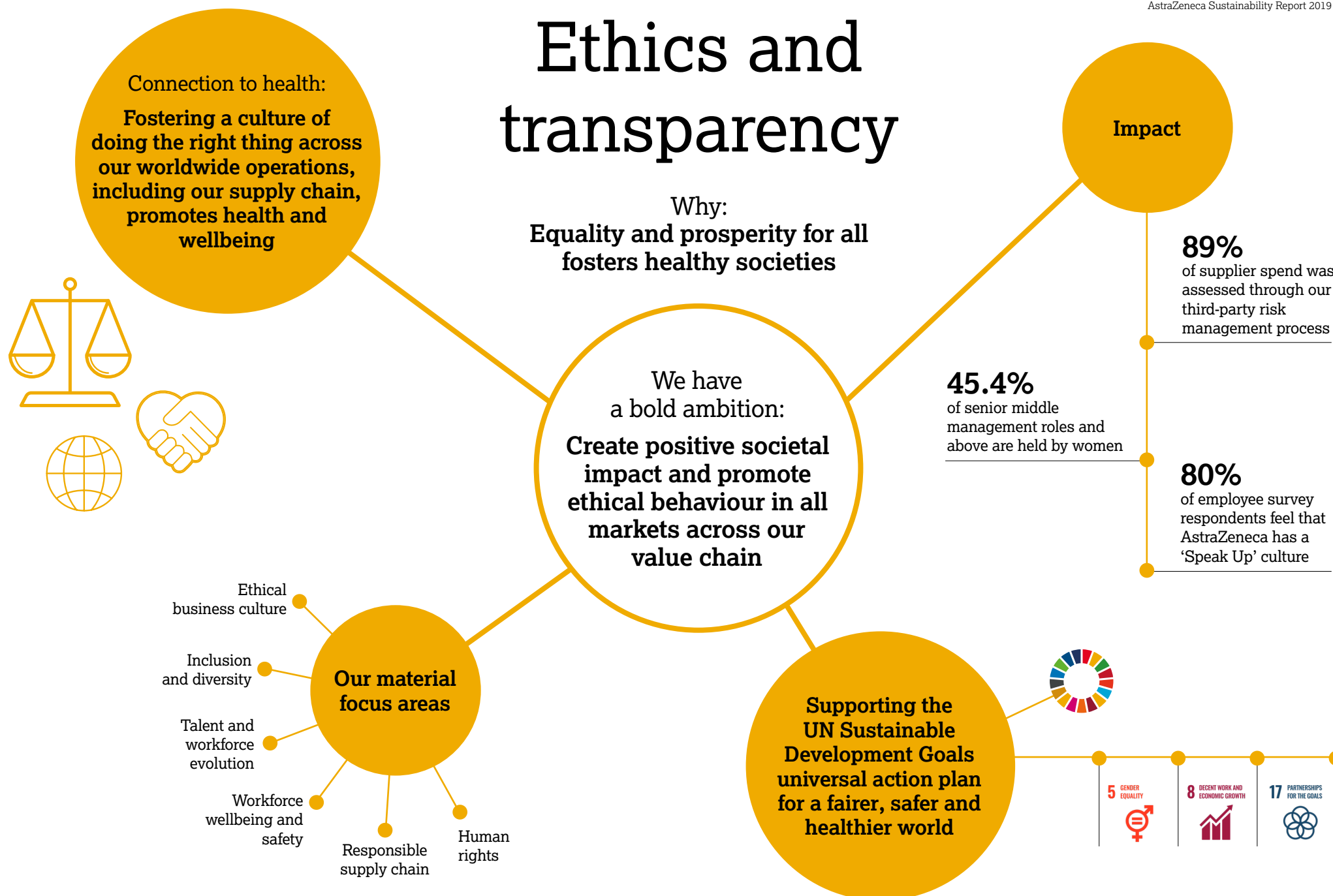
Total waste was 34,193 tonnes, an 11% increase from 2015

Red2Green recycling bin in our lab ▶

Example of bench and plastic brick made from waste in our labs ▼









# Ethics and transparency overview

**We want to be valued for not only our medicines, but also for the way we work. We believe integrity, respect and transparency comprise the foundation of a healthy business culture. We build trust by demonstrating ethical business practices and fair treatment in everything we do within our company, across our value chain and in society.**

## The big picture

Our core company Values, including **putting patients first and doing the right thing**, guide our decision-making and foster a unified AstraZeneca culture. These Values underpin all our activities and serve as a compass for our interactions.

Our approach goes beyond rules and policies: we want to empower our workforce to use their judgement to do the right thing. We embrace ethics and transparency, from the way we treat our employees and patients, to our emphasis on human rights and equity, to our partnerships with our suppliers.

In addition to our core company Values, we have established policies that guide employees on how to apply ethics in their day-to-day work – from scientific research in the laboratory to interactions with colleagues, healthcare professionals, patients and supply chain partners. See [Ethical business culture](#) for more.



We put patients first



We do the right thing

Our Values underpin all our activities and serve as a compass for our interactions



Compliance colleagues discuss our Ethics strategy ►



## Material focus areas

Our approach prioritises six ethics 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

- Launched an online interactive map showing information on site operations, suppliers, Access to healthcare programmes, and demographics – a first for the pharmaceutical industry.
- Recognised as a **Top Science Employer** (#15 globally) for our strengths in employee treatment, work culture, values and social responsibility.
- Launched our first Global Inclusion and Diversity Council, led by CEO Pascal Soriot.
- Hosted a virtual and on-site Speak Up campaign to encourage employee dialogue and advocacy.
- Hosted mental wellbeing events to reduce stigma and raise awareness.

# Ethical business culture

## Why it matters

**There is a lack of public trust in big corporations. Scepticism is even greater towards companies in the pharmaceutical industry. This trust deficit impacts the ability to build a healthy, productive workforce and the partnerships necessary for innovation and bringing healthcare solutions to more people. Stakeholders deserve ethical business practices from companies that are embedded in their countries and responsible for life-changing medicines.**



## 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, ethical investing, intellectual property, responsible lobbying, responsible sales and marketing and responsible use of technology.

## Business connection

Our ability to attract talent and have access to markets is dependent upon upholding ethical business practices and being increasingly transparent about how we operate. The reputational, legal and long-term sustainability risks make an ethical business culture imperative.

Our work contributes to these Sustainable Development Goals:



◀ Our employees uphold our Values in meetings in-person and virtually

## Approach

We strive to model an ethical business culture by going above and beyond legal and regulatory requirements. This means fostering an environment where our employees can speak up if they see behaviour that is not aligned with our Values or encounter wrongdoing. We ask our leaders to demonstrate desired behaviours, and we provide employees with tools to act ethically.

Recognising that our workforce is composed of individuals empowered to make their own decisions, we know that setting rules is not enough – which is why we emphasise a culture based on our Values, key commitments and principles. We foster this culture by encouraging all employees to adopt a sustainability mindset that embraces our core values including: 'doing the right thing' for all our partners and 'putting patients first.'

In today's increasingly information-seeking society, our actions add more value by being visible. Transparency supports the learning process for our employees, suppliers, and anyone on a sustainability journey. We look to balance what we share about how we work and our results with the need for data privacy and competitive innovation.

## Governance

We integrate ethics into the Compliance arm of our Global Sustainability function. Our Chief Compliance and Sustainability Officer, who reports directly to the CEO, is accountable for compliance, sustainability strategy, and safety, health and environment matters.

In 2017, we relaunched our [Code of Ethics](#) to strengthen employee understanding and adherence by outlining our commitments in simple terms and focusing on why these commitments matter. It comprises our company Values, expected behaviours and Global Policies. Additional requirements at the global, local and business-unit level complement our Code, providing guidance for employees.

Bribery and corruption is a concern for our industry and society more broadly. Our Audit Committee annually reviews our systems and controls to prevent bribery and corruption. Our Chief Compliance Officer is accountable for the Compliance function's reporting to the Audit Committee on bribery and corruption risk, safeguards and breaches. Where a breach has been substantiated, we take corrective action, including termination of employment or third-party engagement. We also take steps to prevent recurrence, including enhancements to our controls. In 2019, we launched a new anti-bribery course, tailored to our Commercial colleagues, with scenarios relevant to their daily work.

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



# Ethical business culture continued

AstraZeneca Sustainability Report 2019

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## Sustainability in action

### Speak Up campaign

Speak Up is about fostering a culture where all employees feel empowered to raise ideas and respectfully challenge behaviours not aligned with our Values. It means employees must feel safe and feel that their voices are heard. It requires managers to promote diversity of thought and to handle challenges with respect. In 2019, we emphasised the value of speaking up through a week-long Speak Up campaign. It gave employees a platform to share their thoughts and stories around Speak Up. It also featured a series of demonstration scenarios tackling situations from everyday to complex. See an example of how we engaged [here](#). The campaign brought attention to refreshed guidance resources including materials for managers to use with their teams and our channels to raise concerns.



### Share & Care Europe volunteering programme

As AstraZeneca employees, we are committed to sharing our time to have a positive impact on the environment, patients and community. In our Europe and Canadian locations, this year we established a combined volunteering programme to make our positive mark on the planet and society. This common framework we use is called Share & Care. Employees have supported causes such as planting trees, facility improvement for visually impaired children, care item collection for hospice patients, building homes for bees, and a charity run for cancer patients.

### Living out our Value of putting patients first

We held our first Patient Week this year. Through this global enterprise-wide approach, we engaged and reflected on how we can achieve our vision of delivering the healthcare experiences and outcomes that people care about most so they can enjoy fulfilling lives. Patient Week provided employees and teams across the company with the experience to walk in patients' and caregivers' shoes, listen to their experiences and act on their insights to activate patient-centric solutions and deliver meaningful advances along the entire patient experience. In support of our patient-centric business models, we launched a new Global Standard on Patient Interactions. Training on this new Standard has been assigned to all employees. We also deployed materials through a new online resource hub, including a toolkit guide.

◀ Colleagues brainstorming on Speak Up



## Targets

### 2020 target

Ensure AstraZeneca has a 'Speak Up' culture



Status: On plan

### 2019 update

- 80% of employee survey respondents feel we have a 'Speak Up' culture
- 63.3 instances of non-compliance with the Code of Ethics per thousand employees in commercial business units
- 434 reports were received through AstraZeneca helpline (in commercial business units)

### 2025 target

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



Status: On plan

### 2019 update

100% of active employees trained in 2019

## Challenges

When it comes to preventing bribery, we are not just concerned about our employees' behaviours; we are accountable for the actions of third parties working on our behalf. We rely on the expertise and services of third parties in all aspects of our business, which exposes us to risk as we have less visibility of day-to-day conduct. All patients deserve access to our medicines, so we operate in many markets, even where the risk of bribery and corruption is present. While the prevalence of bribery may be higher in some markets, we have a robust compliance programme with controls in place, designed to prevent such misconduct. Our training and policies also emphasise that bribery could happen anywhere, and we must all be vigilant.

## Highlights

### Leveraging technology for ethics

An automated FAQ chatbot helps answer employees' compliance questions. In AstraZeneca China 94% of users said they would use the chatbot again.

### Ethics compliance ambassadors

The successful ethical compliance ambassador programme in AstraZeneca Egypt was shared across the Middle East and Africa region to help spread best practices.

### Board reviews ethics metrics

The Board of Directors began reviewing a new company culture dashboard that measures integrity, engagement, performance and development.

### Employees trained on anti-bullying and anti-sexual harassment

Learn about the training in the [Human Rights](#) section.



# Ethical business culture – bioethics

## Why it matters

**Bioethics is a rapidly evolving field and so too are stakeholder expectations. There are a range of ethical issues that stem from biological and medical science, including the use of human biological samples (HBS), the use of animals in research, and the conduct and transparency of clinical trials.**



## Business connection

As a science led company, we are dependent upon biological and medical science. We must consider the ethical issues that arise in the short and long term. This careful assessment of our science and the impact on our stakeholders and the environment is essential to be able to deliver our life-changing medicines now and in the future.



## Governance

Our Bioethics Advisory Group (BAG) brings together subject matter experts to oversee bioethical issues. The BAG carries out horizon-scanning to anticipate bioethical trends and issues, provides subject-matter expert advice in response to stakeholder enquiries, and oversees the [Global Bioethics Standard](#) and its supporting global standards. This Standard was updated by the BAG in 2019, which demonstrates transparency in topics such as animals in science, HBS, and clinical trials. These governance activities communicate the importance of human and animal concerns across the business. Our Chief Medical Officer serves as the owner of the Global Standard: Bioethics and sponsor of the BAG.

### Human biological samples

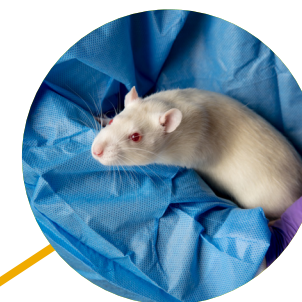
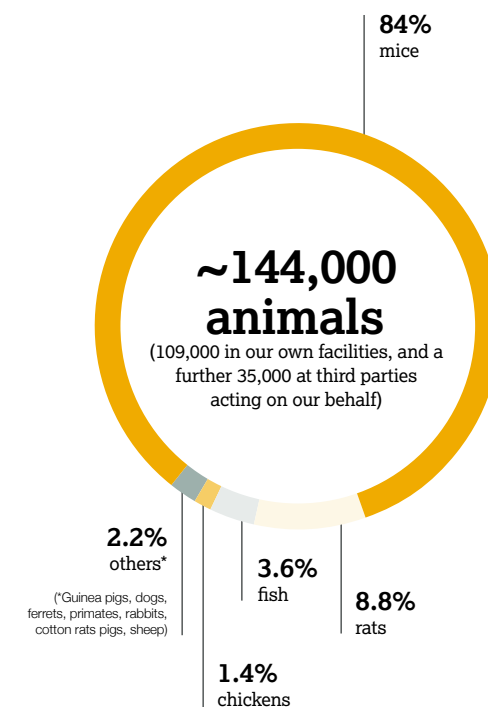
Our HBS Governance Team oversees our collection, storage, use and disposal of HBS in R&D, including human foetal tissue (hFT) and human embryonic stem cells (hESC). This team also approves or rejects proposals for experiments using hFT and hESC. Additionally, the HBS Governance Team is accountable for oversight of risk management for major incidents involving the use of HBS in R&D.

## Animals in research

We embrace a Culture of Care, in which we work to high standards of animal welfare and constantly look for ways to improve how we use animals in research. Our Chief Veterinary Officer leads the Council for Science and Animal Welfare (C-SAW), which is the expert decision-making group for animal welfare and compliance. C-SAW focuses on promoting the 3Rs (replacement, reduction and refinement of animals in research), encouraging openness about our use of animals and fostering initiatives to promote a Culture of Care. C-SAW ensures that our governance and oversight mechanisms are robust, and that we are continually working to improve laboratory animal science and welfare. We share lessons and innovations within the company and with our external partners, working in a spirit of openness and transparency around responsible animal use.

For more on our approach and governance, see the [Ethical business culture](#) section.

Learn more about [how our work with animals aligns with the 3Rs framework](#).



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

◀ Working together to build a Culture of Care





## Ethical business culture – bioethics continued

### Sustainability in action

#### Biodiversity management

AstraZeneca supports the principles of the Nagoya Protocol to protect and value biodiversity. Some of our medicines impact biodiversity on our planet because they are sourced from biological materials. In 2019, for example, our medicine that has the most impact on genetic resources was assessed against the EU Nagoya Protocol regulations. The assessment was conducted using a due diligence tool developed specifically for governing and recording our utilisation of genetic resources in accordance with regional and national access and benefit sharing legislation. The assessment identified an in-scope material and we formally notified the Swiss Government of our use of the material prior to product launch. This is the first time we have had a genetic resource in scope of Nagoya legislation. Our bioethics governance ensured no delay to our medicine manufacture and supply.



#### C-SAW Award winners summary

We recognise and celebrate our scientists and animal care staff for exceptional commitment to the 3Rs – replacement, reduction and refinement of animals in research. Our C-SAW Global 3Rs Awards is a competitive and highly visible awards programme that recognises excellence in 3Rs science and encourages continuing improvements in animal welfare across our company and with our external partners. Alongside the 3Rs Awards, we also call for nominations for exceptional individuals and teams in the categories of Culture of Care and Openness about animal research. Highlights from 2019 include:

- A novel molecular biology approach that would reduce the numbers of animals needed to screen lipid nano-particles by tagging the molecules of interest.
- A refinement to anaesthetic methods in rats, allowing the use of less invasive nose cones instead of intubation during procedures.
- A comprehensive programme of work and publications that ultimately provided the science for regulators in Europe to replace some animal studies previously using fish with non-animal alternatives.
- A cross-site collaborative project to encourage the uptake of refined methods of handling laboratory rodents.
- An innovative approach to giving our employees an insight into the world of animal research, by developing a 360 virtual tour of one of our facilities.

#### Exploring technological alternatives to human biological samples

The use of human biological samples, such as solid tissue, biofluids and their derivatives, plays a vital role in developing a deeper understanding of human diseases and their underlying mechanisms, which helps us create effective, new and personalised medicines. In rare circumstances, we may use human fetal tissue (hFT) or human embryonic stem cells (hESC). In these cases, 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.

We are committed to minimising the use of fetal tissue by exploring technological alternatives. In 2019, no additional new research proposals that include use of cells derived from hFT have been approved; three projects using hFT have progressed as at 31 December. An additional project using hESC has been approved in 2019, resulting in 10 projects using 21 different hESC lines or derived cells having been approved as at 31 December; and four projects are ongoing.

Colleague in an animals in research lab ►

### 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. Our company Values guide us that anticipating and preparing for these advances while following the science, is key to doing the right thing.

### Highlights

#### Employee bioethics awards successful

40+ entries received from employees for our most successful ever Global C-SAW Awards.

#### Increasing transparency on bioethics

New and expanded content about [our bioethics](#) was added in 2019 to the AstraZeneca website.







# Inclusion and diversity

## Why it matters

**By fostering an inclusive and diverse workforce and workplace, we are doing the right thing, driving innovation and contributing to our values-based culture within our business.**

At AstraZeneca, we know employees are able to be at their best in environments where they feel safe and empowered. We also know that bringing together different ways of thinking is the foundation of our ability to innovate. By supporting equality, we are also addressing a barrier in healthcare, where economic disparities contribute to challenges of affordability of medicines, proximity to healthcare providers and the privilege to take time off work for treatment.

## 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 equality and inclusive behaviour in the workplace and communities where the company operates.

## Business connection

Inclusion and diversity is good for our people and our business. Studies show that diverse management teams drive a 19% increase in revenue.<sup>1</sup> Inclusive companies are 120% more likely to hit financial goals<sup>2</sup>, and ethnically diverse companies are 35% more likely to perform better.<sup>3</sup>

Our work contributes to these Sustainable Development Goals:



## Approach

We see inclusive behaviour and a diverse workforce as a business imperative. Inclusion and Diversity is one of the three pillars of our People strategy driving innovation, engagement and a sense of connection and belonging. Through programmes and governance that improve understanding, leadership and performance – we empower every employee to become a champion of inclusion and diversity. Our strategy asks us all to demonstrate inclusive leadership, to speak up, listen up and follow up with great ideas and fresh perspectives. Through our emphasis on structural inclusion to promote equality and eliminate unconscious bias, we also focus on building and sustaining a diverse talent pipeline.

See the [Human Rights](#) section for related information.

## Governance

Our Board of Directors and SET conduct biannual reviews of the AstraZeneca workforce composition, covering a range of metrics, including diversity trends in terms of gender, leadership, ethnicity and age. A new dashboard for 2020 on company culture includes inclusion and diversity measures. Accountability is held by Executive Vice President of Human Resources, a SET member who reports to the CEO. The SET has quarterly reviews of diversity trend metrics, including gender diversity and leadership ethnic diversity. We also set internal targets and KPIs enterprise-wide and for each SET area. External targets and KPIs are available in the [Sustainability Data Summary](#). Our Global Inclusion and Diversity Council comprises senior and rising leaders from across our Company. The Council oversees the implementation of our inclusion and diversity strategy through our worldwide plans and global policies.



## Sustainability in action

### Design for inclusive leadership: Global Inclusion & Diversity Council

We know that inclusion is a behaviour that should be demonstrated by all our employees, and that is why our concept of inclusive leadership applies to all. We define it as:

- Appreciating individuals for who they are, valuing and leveraging their differences, contributing to a psychologically safe environment.
- Supporting lifelong learning through coaching and honest performance-related feedback.
- Ensuring the right people are assigned to do the right work at the right time.

By launching our first Global Inclusion and Diversity Council, which is chaired by our CEO, we are setting the tone from the top. The Council includes representatives from each of the SET areas and key geographies. This diverse strategic body is accountable for developing and implementing an inclusion and diversity strategy for each SET area and key geography, so the global approach is tailored for our business model. The Council is reviewing both quantitative and qualitative measures such as gender demographics by career level and inclusion stories shared in our *This is Me* campaign (see more in the Highlights).



# Inclusion and diversity continued

## Sustainability in action

### Building a Speak Up culture: inclusion and diversity events

Our success depends on fostering an entrepreneurial mindset that drives disruption and innovation, and this can only be done if we encourage great ideas to be considered, debated and pursued. To foster opportunities to Speak Up, we host employee inclusion and diversity events. For the first time, this year we took a global approach to 'Empowerment Summits'. These are employee conferences on inclusion and diversity that are conducted with locally relevant content curated by local teams. Summits were held across the US, AsiaPac, Brazil, Sweden, Poland and the UK, with plans for expansion to other countries in the future. Our employee resource groups (ERGs), led by volunteers at various sites, continue the dialogue throughout the year. These groups emphasise alignment with our business strategy and capability to support inclusive leadership, Speak Up culture and a diverse pipeline. For example, the AZPride ERG for our LGBT+ community and allies now has a global approach with chapters in five countries. The global focus shares ideas and materials to drive efficient growth and best practices to its chapters.



### Building and sustaining a diverse talent pipeline

In France, a student's educational path and access to employment can depend on social, territorial, ethnic and cultural background. It takes six generations in France to get out of poverty compared to four on average in OECD countries. Equality of opportunity remains to be achieved.

In 2019, AstraZeneca took action on social inclusion as a founding partner of L'Ascenseur [The Elevator]. L'Ascenseur brings together 20 associations to implement solutions that contribute to placing the social elevator back into service.

*"On issues such as inclusion and diversity, theory and goodwill no longer are sufficient; companies should concretely commit and act to make change happen."*

Olivier Nataf, Country President – AstraZeneca France

By the end of 2022, AstraZeneca France aims to support more than 1,000 young people, from age 12 to 25, all along the professional value chain: information, orientation, education and employment. AstraZeneca and L'Ascenseur are developing the first collaborative cross-association programme. Our employees will commit alongside the company through mentorship, workshops, tutoring, coaching, etc. to take up this challenge. This will help AstraZeneca France enrich its pipeline of young talented people from various origins and backgrounds.

◀ AZPride ERG colleagues meet and greet



## Targets

### 2025 Target

Reach gender equality in management positions



Status: On plan

### 2019 Update

45.4% of women in senior middle management roles or higher



## Challenges

On a global basis, cultural starting points and understanding around inclusion and diversity differ. Our aim is to stimulate dialogue, understanding and leadership in this space in all of the countries where we operate, so we tailor our approach to be locally meaningful. Whilst we promote equality within the company on a global basis, rights affecting minority groups and women vary greatly by country due to different legal frameworks. We advocate for equality through consortiums such as United Nations Women's Empowerment Principles and United Nations Free and Equal Standards for Business.



## Highlights

### Bloomberg Gender Equality Index

AstraZeneca was one of 230 companies selected for this Index that distinguishes companies committed to transparency in gender reporting and advancing women's equality.

### Corporate Equality Index

Earned a 100 on the Human Rights Campaign's index to designate AstraZeneca one of the 2020 Best Places to Work for LGBTQ Equality.

### This is Me engagement campaign

We encourage employees to share their personal stories and inclusion and diversity through video campaigns, using the tagline "This is me, This is us, This is AZ". Originating from AZPride, employees shared their stories of coming out and their experiences as a member or ally of the LGBT+ community. Stories spread internally and externally through our social media platforms throughout Pride month and provided education and an opportunity to connect across the organisation.

### Furthering our inclusion and diversity commitments

Joined United Nations Free and Equal Standards for Business aimed at tackling discrimination against lesbian, gay, bi, trans and intersex people. Committed to the United Nations Women's Empowerment Principles dedicated to corporate actions to endorse equality.

# Talent and workforce evolution

## Why it matters

**Employment and workplaces are changing in light of shifting worker expectations and technological advances in automation. These trends are evolving the nature of jobs, roles and business operations. Employees are increasingly attracted to companies with a strong social purpose, which provide opportunities for lifelong learning.**

## Description

Company efforts to foster a lifelong 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.

## Business connection

As an innovation-based company, the continual development of our workforce is imperative for attraction and retention. We strive to prepare for and adapt to disruptive workplace and workforce changes by leading the way in responsible employment practices that enable people to reach their full potential. This makes business sense, as the future of our company depends on our people. We believe our investments support our business and society more broadly, as we develop the workforce of tomorrow to deliver medicines for patients.

Our work contributes to these Sustainable Development Goals:



◀ Colleagues test out virtual reality at the Scifest in Gaithersburg, MD, US



## Approach

We want to ensure our 70,600 employees are prepared and empowered to face changes in technology, and we strive to provide the work environment and opportunities they need to thrive. Our People strategy supports our strategic priority of being a Great Place to Work, and is built on three pillars:

- Performing as an enterprise team – Our approach to attract the critical capabilities required to deliver our strategic priorities is underpinned by predictive analytics, meaning workforce decisions are data-driven. We also use workforce analytics to optimise our global workforce and automation initiatives to support our workforce to spend a larger proportion of their time on higher-value activity.
- Talent scout model – We have implemented this model to enhance our capacity to attract key talent into senior roles. This has been successful, demonstrating our ability to hire best-in-class talent at a reduced cost. This has been supported by an enhanced employee referral scheme, which has become an increasingly important source of hire.
- Developing a culture of lifelong learning – We encourage employees to take ownership of their own development and expect leaders to spend time supporting their employees' development.
- Learning and development initiatives – We have ongoing investment in our workforce through professional and technical training, and we enhance this through leadership, mentorship and job-rotation programmes across the organisation.
- Champions of inclusion and diversity –

To foster innovation, we seek to harness different perspectives, talents and ideas, as well as ensure that our employees reflect the diversity of the countries in which we operate. See the [Inclusion and diversity](#) chapter for more.

- Ethical recruitment – We are committed to hiring and promoting talent ethically and in compliance with applicable laws. Our mandatory hiring training for managers includes a module on diversity in hiring and the importance of a diverse workforce. We protect against discrimination on any grounds, including disability. Our [Code of Ethics](#) covers recruitment and selection, performance management, career development and promotion, transfer, training, retraining (including retraining, if needed, for people who have become disabled) and reward.

## Governance

Our approach is governed by the Executive Vice President of Human Resources, who reports to the CEO. On a biannual basis the Senior Executive Team (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.





# Talent and workforce evolution continued

## Sustainability in action

### Tapping into our internal gig economy

In 2017 we launched plan100, an innovative programme that embraces the future of work by tapping into our own internal gig economy to match high potential talent to projects across the globe. Through plan100, our people take on global development opportunities whilst optimising best practice sharing across countries, building core capabilities and our succession pipeline. People are nominated to the projects where their skills are needed most, thus providing managers with the advanced capabilities they need. **With a goal to support 100 appointments across the region in three years, plan100 has now doubled this figure in less than three years, with 211 people matched.**

In 2019, plan100 expanded to include several more business units enabling cross-functional expertise sharing. The global sharing of talent continues to promote diversity in our organisation, enriching our working environments with the new ideas and fresh perspectives that evolve through a more open and inclusive workplace. With plan100, we're meeting new minds and motivating future leaders to succeed.



211 people matched



51% grew into a bigger role



49% improved their succession readiness

### Learning transformation – building a culture of lifelong learning

Constant breakthroughs not only change patients' lives, but our employees' lives too – providing diversity, flexibility and choice in our careers. We believe in building a culture where lifelong learning is ingrained in the way we live and work, share knowledge, and deliver life-changing medicines for our patients.

We have already made progress in building a strong learning foundation. Through 2019, we continued to provide learning opportunities for our employees, from those joining at the start of their career to our most senior and experienced leaders. We have also built a number of tools and resources to set the standard for upskilling our managers across AstraZeneca, for example, our Manager Essentials course is now available in 10 languages.

In 2020, we will focus on transformational learning tools and content to reinvent our learning ecosystem. Our employees will have access to a more personalised, mobile learning experience across more devices. We will continue to develop our leaders of today and tomorrow including through new global programmes such as Leading Enterprise and updated programmes such as Leading Business. We will also be building our capabilities across learning agility, digital literacy and coaching, to provide opportunities for our employees to reach their full potential through a new global online Digital Hub.

## Targets

### 2025 target

Build a strong learning and development culture by 2025 promoting growth opportunities at all levels of our organisation and ensuring a strong leadership pipeline



Status: On plan

### 2025 target

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



Status: On plan

### 2019 update

83% of employee survey respondents feel there is opportunity for growth and development

### 2019 update

86% of employee survey respondents feel that AstraZeneca is a great place to work, up from 83% in 2018

## Challenges

We seek to reduce regretted turnover through more effective hiring and induction, exit interviews, risk assessments and retention plans.

## Highlights

### Ranked among top science employers

In top 20 for third consecutive year by Top Employers Survey from Science Careers.

### Attrition rates (Voluntary employee turnover %)

2017	7.1	9.7	12.2
2018	6.0	10.1	14.4
2019	7.0	10.5	14.4

● Voluntary employee turnover – high performers

● Voluntary employee turnover – total

● Voluntary employee turnover – recent hires





# Workforce wellbeing and safety

## Why it matters

**People have the right to a safe and healthy work environment. Physical safety at work and in transit is a long-standing expectation for companies to provide. Mental wellbeing at work is an emerging societal need and expectation.**

Wellbeing integrates mental health (mind) and physical health (body) resulting in more holistic approaches to disease prevention and health promotion.<sup>1</sup> It is associated with numerous health, job, family, and economically related benefits.<sup>2</sup>



## 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.



## Business connection

Avoiding safety incidents and poor wellbeing is not only the right thing to do, they can lead to productivity declines which can be costly to our company. The WHO estimates that for every \$1 put into scaled up treatment for common mental disorders, there is a return of \$4 in improved health and productivity.<sup>2</sup> By investing in these initiatives, we are investing not only in the health of our people and our company, but in the health of economies – depression and anxiety have a significant economic impact, with the estimated cost to the global economy being \$1 trillion per year in lost productivity.<sup>2</sup>

Our work contributes to these Sustainable Development Goals:



## Approach

We take a holistic approach to workforce wellbeing and safety, considering both physical and mental health dimensions at work, in transit and at home. We strive to ensure that our employees have the resources not only to deal with, but to thrive in challenging situations.

Our strategy is to create a culture of safety, health and wellbeing to protect life. Through our management system, we manage risks to maintain a workplace that is safe and healthy for our entire workforce and visitors. We have created a culture of continuous improvement so that we learn from any incidents. We seek to ensure that our suppliers embrace these same principles.

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.

In 2019, we launched our first global Workforce Wellbeing strategy. Designed to integrate mental and physical health, we want to empower and provide the necessary resources for our workforce to judge life positively and feel good.



## Governance

Workforce wellbeing and safety is governed through our Global Sustainability function, with oversight by the Executive Vice President of Sustainability, who reports to our CEO. We use comprehensive assurance programmes, including performance reporting, internal auditing and periodic management review to constantly monitor and manage performance. Some sites seek external review and we achieved ISO45001 certification at our Macclesfield, UK; Istanbul, Turkey; and Gothenburg and Södertälje, Sweden sites accounting for more than 10,000 of our employees.

We monitor performance centrally to assess progress and identify areas for improvement. We use a dedicated website to communicate information on how incidents can be prevented in the future.

A wellness event hosted by an on-site campus dietitian to raise awareness on foods that are beneficial for pre and post workouts

Employees take time to exercise at one of our on-site fitness centres in Gaithersburg, Maryland





# Workforce wellbeing and safety continued

## Sustainability in action

### Employees drive action on mental health

Local mental health initiatives implemented at various sites have inspired our global workforce wellbeing strategy (see graphic at right). Employees have felt empowered to create their own initiatives such as an internal social media stream dedicated as a safe space to share mental health awareness stories. Here a few examples of mental wellbeing actions across the globe:



#### Employee assistance programmes

Sponsored by some of our health care and benefits schemes, these programmes offer support such as online or over the phone guidance or access to therapists for employees and family members.



#### Trained aids

Our Mental Health First Aiders have had training in recognising mental health issues and have support and resources at their fingertips to direct people towards what will be most helpful.



#### Conversations on mental health

Colleagues across the UK came together in February to mark Time to Talk Day 2019. It is a UK-wide charity event that aims to get people together to discuss mental health. This supports breaking down stereotypes, removing stigmas and aiding recovery.

World Mental Health Day in October - Employees have felt empowered to speak up and share mental health awareness stories on an internal social media stream dedicated as a safe space with the purpose of sharing vulnerabilities and strengths. Followers have grown five-fold to more than 1,000 in 2019.

### Recognising wellbeing and safety excellence

Annually we recognise excellence at our sites, including for wellbeing and safety initiatives. Our Puerto Rico site won the Stay Well category with a multi-faced approach. It opened a wellness club with fitness classes, held a health fair, and offered blood pressure and glucose testing clinics. It was the first site to implement our new ear fitting technology and every employee in the hearing protection programme was tested to ensure proper fit.

The Global Environmental Remediation Group won the Leading in SHE category for its safe process to remove decommissioned structures once used by a legacy company to help boats transport chemicals on the Ohio River in the US. The project posed challenges such as working at heights and over water, performing diving operations, and managing hazardous waste. The team successfully completed the project with zero recordable incidences for over 13,000 working field hours. It emphasised the right culture with safety kick-off meetings, twice daily briefings, mock emergency drills, and promotion of a stop work culture for all employees and sub-contractors.

### Workforce Wellbeing Model



#### Healthy Workplace

Ensure safe and healthy workplaces where workers can speak up and feel good.

#### Healthy You

Provide resources that impact your mind, body and environment to help you feel good.

#### Healthy Organisation

Foster a performance culture that encourages workers to be themselves and feel good.

The team successfully completed the project with zero recordable incidences for over 13,000 working field hours

Colleagues discuss safety measures on site







## Workforce wellbeing and safety continued

### Sustainability in action

#### Creating a culture of safety

To deliver a culture of safety and a safety mindset, we host workshops throughout the year. The Serious incident and fatality (SIF) prevention summit explained the importance of focusing on serious incidents, and the types of tasks and scenarios that could lead to a SIF event. Attendees learned the importance of fully investigating these events without blame and sharing the learning so they can be prevented.

After our SIF Prevention programme was in place a trend of serious near misses was identified during the delivery and loading process at AstraZeneca and third party supplier warehouses. Near misses included trucks moving while still being loaded, pedestrians almost being struck by vehicles and miscommunication between drivers and those unloading vehicles. We met with industry experts and our largest transporters to identify best practices. Following a review of all our warehouses, a standard was developed that included minimum requirements for securing vehicles, personal protective equipment for pedestrians, and driver and warehouse communication.



#### Targets

##### 2025 target

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



Status: On plan

##### 2019 update

The injury rate has decreased in 2019, bringing our total decrease since 2015 to 41%

##### 2025 target

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



Status: On plan

##### 2019 update

The collision rate has decreased 23% in 2019, a 31% reduction since 2015

##### 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: On plan

##### 2019 update

71% of sites promote the four Essential Health Activities



#### Challenges

Approximately 34,000 colleagues in our workforce are based in the field, where the highest risk for a significant injury or fatality is driving. We have a 2025 target to reduce the vehicle collision rate by 55% from our 2015 baseline. The collision rate has decreased 23% in 2019. Continued work with markets with higher collision rates and markets with lower DriveSuccessTracker scores has led to an improvement. Several global campaigns were rolled out in 2019 to the field force, focusing on Ergonomics and the Road Safety top 10. We continue to strive to improve reporting including potential serious incidents and fatality reporting so that we have the opportunity to learn from these events.



#### Highlights

##### AstraZeneca ranked 6th in Global wellbeing challenge

Employees from 43 countries participated in the 100-day Virgin Pulse Global Challenge (VPGC)® 2019. The 2019 challenge saw a 27% increase in the number of participants from 2018 and together, we tracked 1,941,198 miles. The online programme includes physical and psychological health risk assessments, step tracking, and modules for nutrition, sleep and a mental wellbeing.

##### Russia Wellbeing Programme awarded

Silver Stevie® Award in the HR Achievement in Workplace Health & Wellbeing category achieved by the AstraZeneca Russia Wellbeing Programme.

We have a 2025 target to **reduce the vehicle collision rate by 55%** from our 2015 baseline

**23%**  
decrease in the  
collision rate  
in 2019



# Responsible supply chain

## Why it matters

**A large supply chain amplifies impacts on society and the planet, both the positives and negatives.**

A supply chain itself is made up of workforces that deserve good treatment, operations that can reduce their environmental footprints, and neighbours of communities that they affect. Supply chains also help connect the raw and processed materials that can bring life-changing medicines to patients.

## Description

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

## Business connection

Our business success depends on a resilient, transparent and inclusive supply chain that supports responsible development and manufacturing. 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. We believe embedding sustainability throughout our supply chain through collaboration with our suppliers increases business value for all.

Our work contributes to these Sustainable Development Goals:



## Approach

We support suppliers in building their own sustainability capabilities and by holding them to high standards. 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. Throughout the life 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](#).

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

## Governance

Our procurement and global external sourcing teams have a shared responsibility to execute our vision in this area. Our Chief Procurement Officer, who reports to the Executive Vice-President of Operations, leads our procurement strategy. This year we appointed a Global Procurement Sustainability Lead. We expect every employee and contractor who sources goods and services on behalf of AstraZeneca to follow responsible business processes, which are embedded in our Global Procurement Standard. We give procurement professionals detailed training on responsible procurement, and we make that training available for other employees to access.

Our Vice-President of Global External Sourcing, who also reports to the Executive Vice-President of Operations, manages our responsible sourcing strategy for our critical manufacturing partners in the Active Pharmaceutical Ingredient, Formulation and Packaging, and Device categories. We collaborate most closely with these partners on sustainability opportunities and challenges. Together, these teams ensure responsible conduct across our supply chain.



◀ Manufacturing employees confirming distribution information



◀ First Supplier Diversity Summit in Brazil



# Responsible supply chain continued

## Sustainability in action

### Positive Sourcing

We launched our Positive Sourcing programme for sustainable procurement driven by our collective responsible sourcing actions – actions that create a more inclusive, resilient and transparent value chain. Our ambition is to achieve 100% ethical spend – ensuring that all categories have a sustainability strategy and performance measures in place by 2025.

To kick off this ambitious objective, we ran our Positive Sourcing campaign – a week-long event kicked-off by our Chief Procurement Officer to drive further awareness and engagement of our employees on the importance of responsible sourcing practices.

We have already made some significant progress. Throughout our organisation, we are actively monitoring business risk and promoting responsible sourcing practices in a number of ways:

#### Monitoring Business Risk:

Through our third-party risk management process (3PRM), we select suppliers to complete required assessments to maintain oversight of our supply chain and where we are spending our money, therefore reducing our risk. In 2019, 89% of spend was assessed through our 3PRM process.

#### Promoting Responsible Sourcing Practices:

We promote responsible sourcing practices by working with suppliers in four ways: to deliver our sustainability targets, support suppliers' journeys, innovating on challenges, and promoting diversity.

## Responsible Sourcing Practices

1

### Delivering AstraZeneca's sustainability targets

Our category managers partner with suppliers to deliver against our challenging targets.



**Science-Based Targets:** Achieve our Scope 3 emissions target



**Sustainable Packaging:** Achieve 95% sustainable paper in secondary packaging by 2022



#### Air to Sea Transportation

**Conversion:** Achieve 64% of all global volumes by sea and rail freight by the end of 2020



**EV100 Fleet:** Achieve 100% green vehicle fleet by 2025



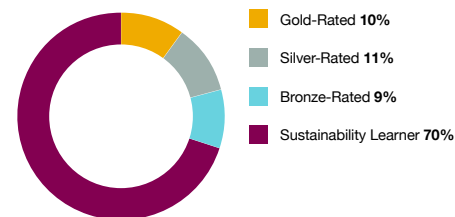
Scope 3 emissions using primary data decreased to 20%, and 2% improvement since 2018

2

### Ensuring we support our suppliers with their own sustainability journey

In 2018 we created the [Sustainability Partner Guide and Framework](#) to set clear expectations for our critical manufacturing partners. This framework provides a common way for our sourcing teams to assess and reward sustainability performance. Since launch, 89 manufacturing partners with 131 sites worldwide were evaluated for overall sustainability performance, making up nearly 10% of AstraZeneca's total spend.

#### Overall Sustainability Framework performance:<sup>1</sup>



To further partner with suppliers we initiated Science Based Targets (SBT) and RE100 training for our critical direct manufacturing partners. We held these two training sessions with over 50 of our critical manufacturing partners in attendance in 2019. Setting SBTs is a leading practice we recognise within our framework.

3

### Innovating together to meet today's sustainability challenges

We have committed to launching our next-generation inhaler with near-zero global warming potential (GWP) propellants by 2025 as part our Ambition Zero Carbon commitments.

We are currently working with propellant suppliers to innovate to achieve our objectives and expect that the propellant used in the next generation pressurised metered-dose inhalers (pMDI) will have a Global Warming Potential that is 90–99% lower than propellants used in older pMDIs. See more in [Product environmental stewardship](#).

4

### Promoting supplier diversity across our markets

We appreciate the importance of having an inclusive and diverse supply chain and developed the framework for the AstraZeneca Programme Global Expansion, with the target to implement the programme in 10 new markets outside of the US by 2025.

We hosted the first AstraZeneca Supplier Diversity Summit in Brazil, where we met with suppliers and industry partners to share information about the importance of inclusion and how we can make positive change in the community together.

First Industry Forum – AstraZeneca partnered with industry peers to launch the first Pharmaceutical Industry Supplier Diversity Forum in the UK and Europe. Industry leaders, diverse entrepreneurs and advocacy partners networked and shared ideas on how to make a positive impact though diversity and inclusion, enhanced innovation and sustainable practices.





# Responsible supply chain continued

## Sustainability in action

### Mapping our suppliers

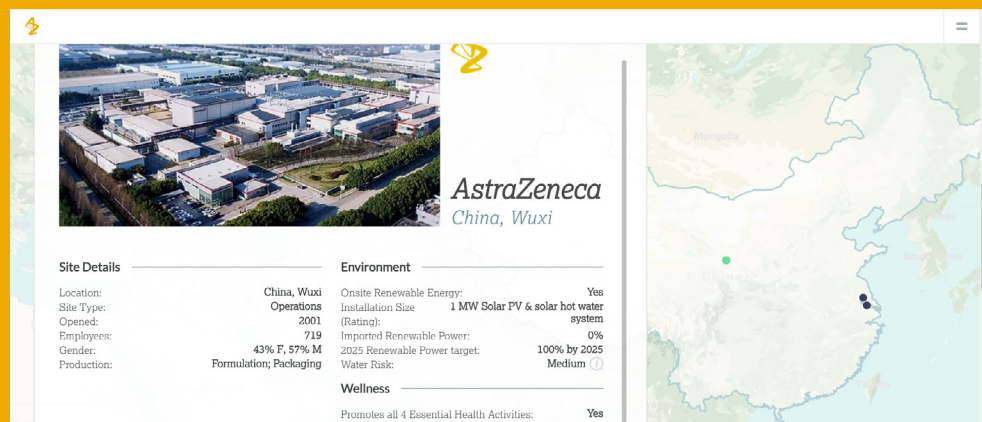
We are the first pharmaceutical company to share an online interactive map showing the countries of our critical direct partners (our Active Pharmaceutical Ingredient, Formulation and Packaging, and Device suppliers).

We recognise transparency as a foundation of trust, something that we want to build with all our stakeholders – employees, patients, partners, healthcare professionals, governments, investors and society. So, we're reimagining sustainability reporting by aiming to make the same information accessible to all at the same time. The launch of the new interactive Transparency Map is part of that commitment.

The map includes 96 countries disclosing data points on suppliers, site operations, Access to healthcare programmes, and demographics.

The search by country feature explores our sourcing and manufacturing around the world involved in delivering our medicines to patients, and more.

See the Transparency Map in action [here](#).



▲ Screenshot of information from the Transparency Map for our site in Wuxi, China

## Targets

### 2025 target

Ensure 100% of spend is assessed through our third-party risk management (3PRM) programme



Status: On plan

### 2019 update

89% of spend assessed through our 3PRM programme, up from 82% in 2018

### 2025 target

75% of all critical manufacturing partner sites are rated 'Bronze' or better in our sustainability framework<sup>2</sup>



Status: On plan

### 2019 update

34% 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

### 2019 update

One new Supplier Diversity Programme launched in Brazil

## Challenges

Supply chains are complex. This poses challenges for improving capabilities, which are most effective when done in collaboration with peers. We continue to balance quick progress from stand-alone AstraZeneca initiatives with that of the more lasting results brought about through deep collaboration with industry. We know the only long-term path forward is through the Pharmaceutical Supply Chain Initiative (PSCI) and similar efforts.

## Highlights

### Collaborating across industry

We are a member of the [Pharmaceutical Supply Chain Initiative](#) (PSCI), an industry collaboration that supports principles for responsible supply chain management for ethics, labour, health, safety, environment and related management systems. These principles are incorporated into our [Expectations of Third Parties Handbook](#). We aim to collaborate with industry in an effort to reduce duplication of the industry's suppliers' efforts to report on their sustainability performance.

# Human rights

## Why it matters

**Everyone deserves the basic rights and freedoms inherent to all human beings. Human rights protect basic needs such as the right to health; bodily integrity such as freedom from slavery; and civil liberties such as the right to privacy.**

Advancing human rights contributes to UN SDG 5 Gender equality and SDG 8 Decent work and economic growth, thus supporting the long-term health and wellbeing of society and productivity of economies.

## 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.

## Business connection

Respecting human rights is foundational to our ability to retain talent, our social acceptance to operate and the delivery of other sustainability material focus areas such as workforce wellbeing, ethical business culture, responsible supply chain, disease prevention and treatment, and inclusion and diversity.

Our work contributes to these Sustainable Development Goals:



## Approach

This includes taking action on both basic and emerging issues such as workforce treatment, labour rights, and data privacy. Managing human rights is an ongoing and evolving process that is reflected across all functions at AstraZeneca. We intend to prevent human rights issues by taking the proper corrective action as soon as issues are identified.

As signatories to the UN Global Compact since 2010, 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](#) – our approach to respect the rights of all people. We conduct biannual human rights labour reviews in all countries where we have employees.
- [Modern Slavery Act Statement](#) – our commitment to identify and eliminate, to the fullest extent practicable, modern day slavery and human trafficking from our business. We assess our impacts and publish performance annually in this statement.

- [Conflict Minerals Statement](#) – our position on ensuring that any new 'intelligent' medical products that we manufacture or contract to manufacture containing tantalum, tin, tungsten or gold will be 'conflict-free'.
- [Code of Ethics](#) – our guidance for living our Values and behaviours with formal mechanisms to file complaints, as well as our due diligence and corrective action process. We have a whistleblowing policy and affiliated systems and processes to protect employees and allow them to raise concerns.
- [Data Privacy Standard](#) – our commitment to act responsibly and safeguard data privacy in all its digital forms. A right to privacy was stated in the Universal Declaration of Human Rights in 1948, but in today's digital society it takes on new meaning as technology has outpaced some legal frameworks.

Learn more about how we promote and monitor human rights in the [Responsible Supply Chain](#) section.



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



## Human rights continued



### Governance

Our Board of Directors Risk and Audit Committee annually reviews our Modern Slavery Act performance and statement, as well as conducting quarterly reviews of non-compliance allegation metrics. Accountability is held by the Executive Vice President (EVP) of Operations, EVP of Human Resources and EVP of Global Sustainability and Compliance, and all SET members who report to the CEO. We appointed the first Global Head of Employee Relations in 2019.

Partner for success – We became the first life sciences member of the Slave-Free Alliance of Hope for Justice in 2019. We are members of PSCI Human Rights and Labour group. In the Privacy space, we are members of: the 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.

Our external KPIs are shared in the [Sustainability Data Summary](#).

### Sustainability in action

#### Continuously improving through assessments

We conduct a labour review survey every two years in the more than 100 countries where we operate. Our 2018 Human Rights Labour Review focused on the ILO's core themes, including freedom of association and collective bargaining, child labour, discrimination, working hours and wages, including questions on the Living Wage. In 2017 we signed up to the Fair Wage Network database. The independently produced data was used in our 2018 survey to measure against the salaries of all 68,000+ employees and we are pleased with the results.

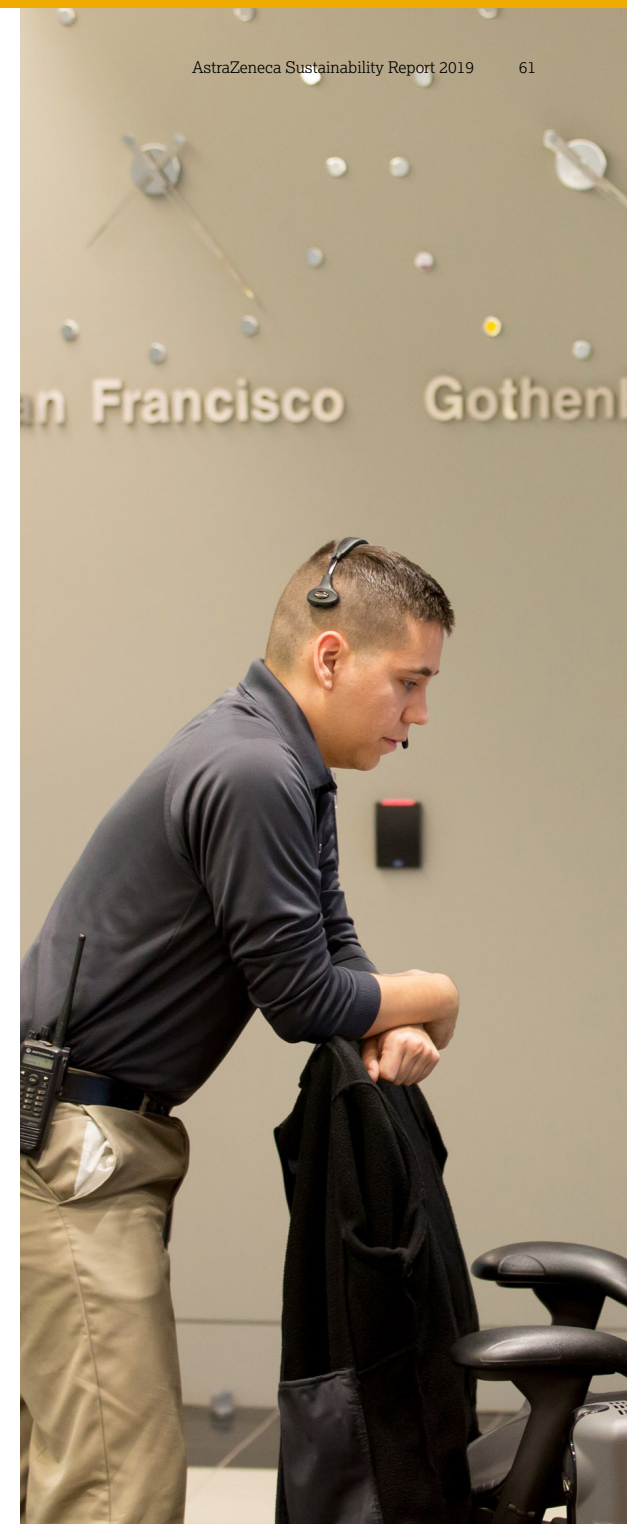
Hope for Justice, a global non-profit organisation which aims to end human trafficking and modern slavery, conducted a gap assessment of our risk mitigation processes for modern slavery and human trafficking. Feedback included that our strengths are leadership engagement and third-party management. Areas for improvement included our training.

We also worked with a third-party sustainability consultancy to begin an assessment of our overall human rights governance structure and measures. Employee interviews and research was conducted to establish a baseline. As a result, we have convened our first Human Rights Working Group to facilitate cross-functional risk and opportunity management.

#### Upholding the right to privacy

We continue to progress our Privacy management as the needs of our patients, employees and other stakeholders evolve. We conduct Privacy Impact Assessments (PIAs) for personal data processes which go beyond what is legally required and mandate PIAs for all types of processing activities worldwide. In 2019, we enhanced our Privacy Forum, comprised of Deputy Data Protection Officers for each country and key global functions to ensure adequate cover and expertise in data protection worldwide. We also submitted our Binding Corporate Rules to the Information Commissioner's Office in the UK for re-assessment of their alignment with GDPR. In 2019 our Senior Executive Team endorsed making privacy training compulsory to every employee on a regular basis; and we also experienced some cyber incidents which enabled us to test and enhance our cyber response process. We measure the number of data subject requests we receive per country to monitor compliance with Data Subject Rights requirements. We also conducted 1,786 Privacy Regulatory Impact Assessments.

We believe it is our responsibility to understand how we are contributing to or hindering human rights ►







## Human rights continued

### Sustainability in action

#### Raising awareness of human rights

We create training materials that align our day-to-day practices with our Speak Up culture of identifying, preventing and reporting concerns, including for human rights. In 2019, we launched training for five areas of human rights.

- Anti-harassment and anti-bullying – This initiative set our expectations for behaviour to ensure our workforce feels respected, supported and safe at work, free from any form of bullying and harassment, be it mental, physical or sexual.
- Speak Up – A Speak Up culture is central to our journey in Human Rights, Ethical Business Culture and Inclusion and Diversity. We hosted a week-long Speak Up campaign that gave all employees the chance to share a video of their Speak Up stories and watch video demonstration scenarios. See more in [Ethical Business Culture](#).

- Privacy – Dedicated online privacy training includes the following topics: personal data definition, international privacy principles, data subject rights, Privacy Impact Assessments, overview of the AstraZeneca Privacy Standard and how to identify and report privacy incidents. We offer several general and specific training modules to all employees and 14,613 people completed training in 2019.
- Anti-Bribery and Anti-Corruption (ABAC) – Focuses on what constitutes bribery, and how employees can use good judgment to make the best decisions in carrying out daily work.

**14,613**  
employees  
completed Privacy  
Standard training  
in 2019



### Targets

#### 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: Not yet started

#### 2019 Update

We conduct our survey every two years and there was no survey scheduled for 2019

### Challenges

Through engagements with external regulators and experts we have validated that our highest risk activities related to modern slavery or human trafficking are construction, temporary resources, recruitment, facilities, logistics, and hotels. Our challenge is to ensure our suppliers and third parties are compliant with our AstraZeneca standards and mitigating these risks that are outside of our direct control before any incidents could occur.

### Highlights

#### United Nations Global Compact

We have been Signatories of the United Nations Global Compact since 2010 and strengthened our membership as Participants in 2018.

#### Assessing living wage across the globe

We utilise the Fair Wage Network database to help assess the living wage within each country where we operate.





# Notices

## Footnotes

### 2019 performance review

- 1 Scope is 47 APIs for which data is available to calculate safe API discharge limits and based on 2018 manufacture.

### Global development contribution

- 1 <https://www.who.int/news-room/fact-sheets/detail/noncommunicable-diseases>
- 2 <https://www.mckinsey.com/featured-insights/employment-and-growth/how-advancing-womens-equality-can-add-12-trillion-to-global-growth>
- 3 <https://www.weforum.org/projects/closing-the-gender-gap-accelerators>
- 4 <https://sdgcompass.org/sdgs/sdg-8/>
- 5 <https://www.worldwildlife.org/threats/water-scarcity>
- 6 <https://siteresources.worldbank.org/INTURBANDEVELOPMENT/Resources/336387-1334852610766/Chap3.pdf>
- 7 At one AZ supply site there was a single measured API concentration that exceeded our API discharge limits. This followed a change implemented to reduce emissions; subsequently, further process improvements and monitoring were implemented, demonstrating emissions are now consistently below the safe API discharge limits.
- 8 Scope is 47 APIs for which data is available to calculate safe API discharge limits and based on 2018 manufacture.
- 9 <https://www.epa.gov/ghgemissions/global-greenhouse-gas-emissions-data>
- 10 <https://climate.nasa.gov/vital-signs/carbon-dioxide/>
- 11 [https://www.who.int/gho/phe/outdoor\\_air\\_pollution/en/](https://www.who.int/gho/phe/outdoor_air_pollution/en/)
- 12 <https://www.who.int/publications/10-year-review/medicines/en/>

### Disease prevention and treatment

- 1 <https://www.who.int/news-room/fact-sheets/detail/noncommunicable-diseases>
- 2 <https://publicpolicy.stanford.edu/news/non-communicable-disease-could-cost-47-trillion-2030>
- 3 <https://www.who.int/global-coordination-mechanism/ncd-themes/ncd-and-youth/en/>
- 4 <http://gco.iarc.fr/today/data/factsheets/cancers/15-Lung-fact-sheet.pdf>. Accessed August 2019
- 5 [www.cancer.net/cancer-types/lung-cancer-non-small-cell/statistics](http://www.cancer.net/cancer-types/lung-cancer-non-small-cell/statistics). Accessed May 2019

### Responsible research and development

- 1 <https://www.who.int/news-room/fact-sheets/detail/the-top-10-causes-of-death>
- 2 Adamko DJ, Friesen M. Why does respiratory syncytial virus appear to cause asthma? Journal of Allergy and Clinical Immunology. 2012;130(1):101-102. doi:10.1016/j.jaci.2012.05.024.
- 3 Domachowski JB, Khan AA, Esser MT, et al. Safety, Tolerability, and Pharmacokinetics of MEDI8897, an Extended Half-Life Single-Dose Respiratory Syncytial Virus Prefusion F-Targeting Monoclonal Antibody Administered as a Single Dose to Healthy Preterm Infants. The Pediatric Infectious Disease Journal. September 2018;886-892. doi:10.1097/inf.0000000000001916.

### Environment's impact on health

- 1 <https://www.who.int/news-room/detail/15-03-2016-an-estimated-12-6-million-deaths-each-year-are-attributable-to-unhealthy-environments>
- 2 <https://www.who.int/airpollution/en/>
- 3 [https://www.who.int/airpollution/events/conference/AP\\_exposure\\_and\\_NCDs\\_background.pdf?ua=1](https://www.who.int/airpollution/events/conference/AP_exposure_and_NCDs_background.pdf?ua=1)
- 4 <https://www.who.int/sustainable-development/transport/health-risks/air-pollution/en/>
- 5 <https://www.ncbi.nlm.nih.gov/pmc/articles/PMC5923716/>
- 6 <http://www.scielo.org.za/pdf/caj/v28n1/11.pdf>
- 7 <http://cen.acs.org/environment/pollution/Air-pollution-kills-780000-people/97/i17>
- 8 <https://www.sciencedirect.com/science/article/pii/S016012017309005>
- 9 <https://www.sciencedirect.com/science/article/pii/S0048969719337453>

### Investments in health systems

- 1 World Health Organization. Global status report on non-communicable diseases 2014. Available at: [http://apps.who.int/iris/bitstream/10665/148114/1/9789241564854\\_eng.pdf?ua=1](http://apps.who.int/iris/bitstream/10665/148114/1/9789241564854_eng.pdf?ua=1) Last accessed November 2017

### Environmental protection

- 1 Scope is 47 APIs for which data is available to calculate safe API discharge limits and based on 2018 manufacture
- 2 At one AZ supply site there was a single measured API concentration that exceeded our API discharge limits. This followed a change implemented to reduce emissions; subsequently, further process improvements and monitoring were implemented, demonstrating emissions are now consistently below the safe API discharge limits.

### Environmental protection overview

- 1 [www.washingtonpost.com/graphics/world/ecological-footprint/?utm\\_term=.ad0460d943cb](http://www.washingtonpost.com/graphics/world/ecological-footprint/?utm_term=.ad0460d943cb)
- 2 [https://www.unglobalcompact.org/docs/publications/2019\\_HealthReport\\_Web.pdf](https://www.unglobalcompact.org/docs/publications/2019_HealthReport_Web.pdf)

### Greenhouse gas reduction

- 1 [https://www.ipcc.ch/site/assets/uploads/2018/02/ipcc\\_wg3\\_ar5\\_summary-for-policy-makers.pdf](https://www.ipcc.ch/site/assets/uploads/2018/02/ipcc_wg3_ar5_summary-for-policy-makers.pdf)
- 2 <http://www.lancetcountdown.org/>
- 3 [https://www.ripublication.com/ijaerspl2018/ijaerv13n1spl\\_08.pdf](https://www.ripublication.com/ijaerspl2018/ijaerv13n1spl_08.pdf)
- 4 <https://www.iema.net/assets/uploads/Special%20Reports/ma20ghg20report204.10.10.pdf>

### Pharmaceuticals in the environment

- 1 Scope is 47 APIs for which data is available to calculate safe API discharge limits and based on 2018 manufacture
- 2 At one AZ supply site there was a single measured API concentration that exceeded our API discharge limits. This followed a change implemented to reduce emissions; subsequently, further process improvements and monitoring were implemented, demonstrating emissions are now consistently below the safe API discharge limits.

### Water stewardship

- 1 <https://www.who.int/globalchange/ecosystems/water/en/>
- 2 <https://www.who.int/news-room/detail/12-07-2017-2-1-billion-people-lack-safe-drinking-water-at-home-more-than-twice-as-many-lack-safe-sanitation>
- 3 [https://www.who.int/water\\_sanitation\\_health/publications/glaas\\_report\\_2014/en/](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](http://www.euro.who.int/_data/assets/pdf_file/0003/317226/Waste-human-health-Evidence-needs-mtg-report.pdf?ua=1)

### Inclusion and diversity

- 1 <https://www.bcg.com/en-us/publications/2018/how-diverse-leadership-teams-boost-innovation.aspx>
- 2 <https://builtin.com/diversity-inclusion/diversity-in-the-workplace-statistics>
- 3 <https://www.mckinsey.com/business-functions/organization/our-insights/delivering-through-diversity>

### Workforce wellbeing and safety

- 1 <https://www.cdc.gov/hrqol/wellbeing.htm#>
- 2 [https://www.who.int/mental\\_health/in\\_the\\_workplace/en/](https://www.who.int/mental_health/in_the_workplace/en/)

### Responsible supply chain

- 1 Considered by critical manufacturing partner site. 131 supplier sites in total in 2019.
- 2 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.

## 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' 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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