

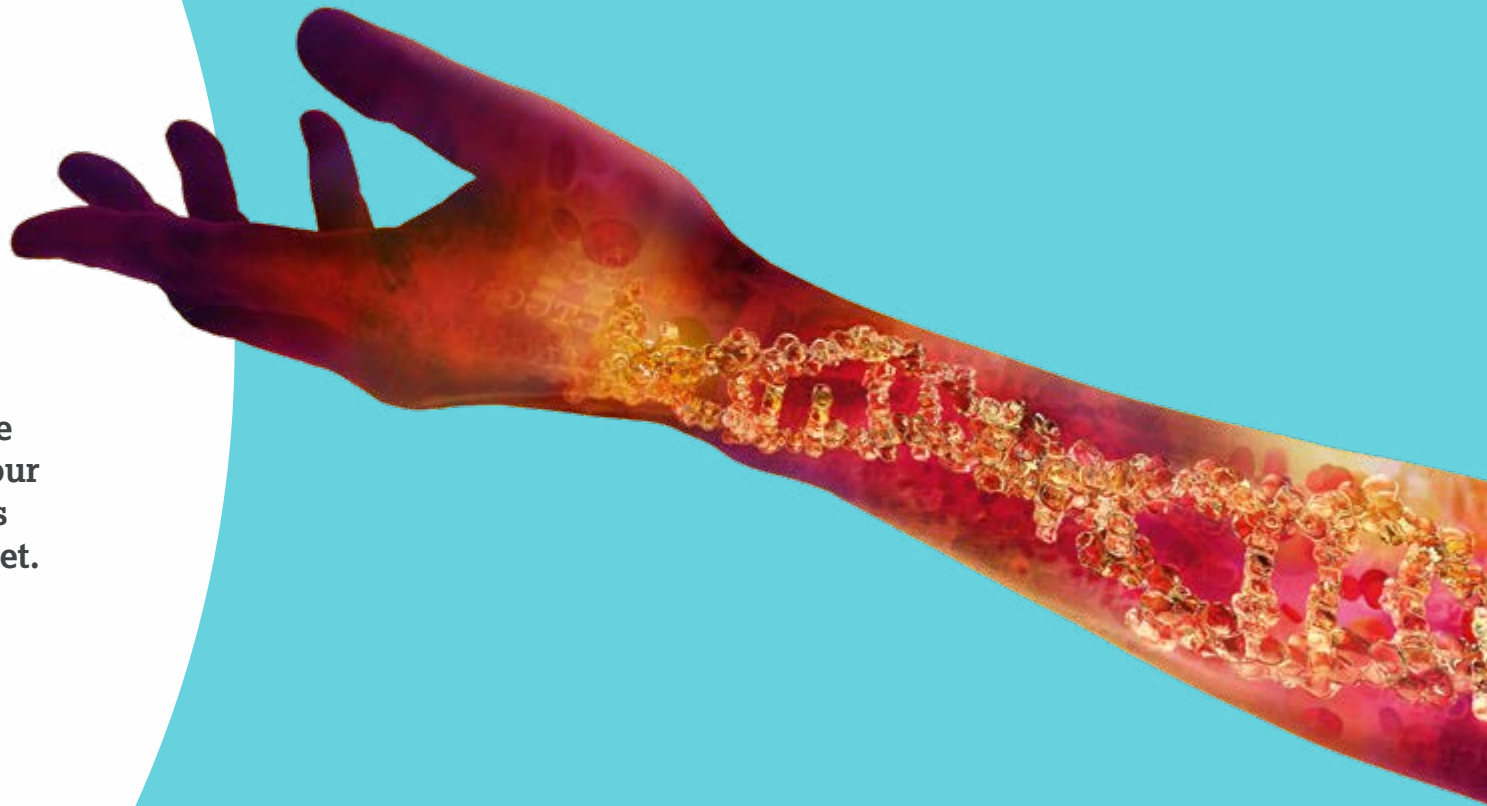


Making science accessible

Sustainability Data 2017

Our sustainability ambition is to make our science accessible by delivering our business strategy in a way that brings wider benefits to society and the planet.

This data summary shows progress for our sustainability performance from 2015–2017. It is intended as a supplement to our 2017 Sustainability Report, which is available at www.astrazeneca.com/sustainability.



Access to healthcare

Disease prevention

Young Health Programme	2015	2016	2017
Number of youth reached through Young Health Programme (cumulative)	1.40	1.60	2.25
Number of active Young Health Programme markets	14	11	12
Number of markets with SROs completed	–	–	4
Number of peer educators trained (cumulative)	32,715	47,330	50,195

Connections for Cardiovascular Health SM (AstraZeneca Foundation)	2015	2016	2017
Total US million dollars given in grants (cumulative)	19	21	22
Number of participants tracked for progress (cumulative)	51,000	56,000	56,000
Number of US-based non-profits funded	47	49	49

Health systems development

Number of people reached through health screenings (cumulative, in millions)	2015	2016	2017
Healthy Heart Africa	1.40	3.00	5.70
Phakamisa	1.05	1.17	1.40
Healthy Lung Asia	–	–	0.13
Total people reached (all programmes)			7.23

Number of trained healthcare workers (cumulative)	2015	2016	2017
Healthy Heart Africa	3,113	4,006	5,335
Healthy Lung Asia	–	–	5,589
Young Health Programme – adolescent health	12,858	13,523	14,472
Phakamisa – physicians and nurses	–	600	762
Phakamisa – ‘Navigator’ Volunteers	–	400	507
Total	15,971	18,529	26,665

Number of people referred for treatment (cumulative, in thousands)	2015	2016	2017
Healthy Heart Africa – identified high blood pressure	267	613	1,088
Healthy Heart Africa – diagnosed for high blood pressure	30	110	216
Phakamisa – identified with malignant lumps	4.0	5.0	5.3
Healthy Lung Asia – diagnosis	–	–	71
Healthy Lung Asia – treatment	–	–	60

Number of activated or partnering health facilities (cumulative)	2015	2016	2017
Healthy Heart Africa	423	527	675
Healthy Lung Asia	–	–	4,913
Total	423	527	5,588

Product affordability

Our Patient Assistance Programme efforts	2015	2016	2017
Number of people reached by Patient Assistance Programmes	–	8.6	9.0
Product donation – Patient Assistance Programmes (\$)	617.0	466.0	401.6

 **7.23 million**
people reached in total
(all programmes)

 **26,665**
trained healthcare workers


Environmental protection

Protect natural resources

Energy	2015	2016	2017
Renewable electricity (imported) (%)	14	58	63
Total renewable energy (power and heat)	6	25	27
MWh of renewable electricity (imported)	104,107	436,239	458,490
MWh of on-site renewable energy (all energy types – power and heat)	9,614	12,033	11,874
Total energy (MWh)	1,805,071	1,785,250	1,742,325

Waste	2015	2016	2017
Non-hazardous waste (tonnes)	21,811.8	21,948.4	20,631.7
Hazardous waste (tonnes)	8,738.1	9,622.6	10,590.7
Total waste (tonnes)	30,549.9	31,571.0	31,222.4
Recycling as a percentage of total waste	45.0	43.1	46.4

Water	2015	2016	2017
Water usage (million m ³)	4.34	4.01	3.89
Chemical oxygen demand (effluent leaving our sites (tonnes))	206.0	255.6	283.3
Water volume by water stress rating for sites with over 10,000m³ of water per year			
High stress rating (million m ³)	–	–	471,577
Medium stress rating (million m ³)	–	–	2,001,972
Low stress rating (million m ³)	–	–	1,312,203

 **63%**
renewable electricity

 **10%**
reduction in our water footprint

Vehicle fleet (%)	2015	2016	2017
Vehicles with fuel-efficient technology (hybrid, electric, other)	–	–	<1

Supply chain – environmental footprint for first tier suppliers ⁵	2015	2016	2017
AstraZeneca manufacturing sites – CO ₂ from energy (CO ₂ e)	408	407	318
API category – CO ₂ from energy (CO ₂ e)	33	35	25
F&P category – CO ₂ from energy (CO ₂ e)	77	61	61
AstraZeneca manufacturing sites – total waste (thousand tonnes)	29	34	33
API category – total waste (thousand tonnes)	23	24	29
F&P category – total waste (thousand tonnes)	7	7	4
AstraZeneca manufacturing sites – water use (million m ³)	2.9	3.6	3.4
API category – water use (million m ³)	0.3	0.3	0.2
F&P category – water use (million m ³)	0.9	0.8	0.6

Environmental protection

Protect natural resources continued

Carbon emissions (in tonnes CO ₂ e)				GHG Protocol Scope 3 category ⁵				Basis for changes year on year	
	2015	2016	2017		2015	2016	2017	2018	
Scope 1 ¹	318,633	309,661	291,652	Purchased goods and services	3,386,864	5,794,302	4,184,555	4,179,741	Changes in procurement spend
Scope 2 – market-based ²	348,664	218,770	182,847	Use of sold products	448,891	688,653	778,885	829,407	Increased product sales
Scope 2 – location-based ²	285,052	288,210	278,870	Downstream transportation and distribution	Not calculated	312,780	318,081	302,869	Stable
Scope 3 operational footprint – waste incineration	22,466	24,610	25,464	Business travel	295,422	211,720	141,885	139,546	Changes in procurement spend
Scope 3 operational footprint – freight and logistics	139,150	122,326	116,615	Upstream transportation and distribution	191,533	212,351	264,461	313,480	Changes in procurement spend
Scope 3 operational footprint – business air travel	150,459	108,338	134,072	Fuel and energy related (not Scope 1 or 2)	119,144	121,391	112,578	113,497	Changing mix of energy sources at our sites
Scope 3 operational footprint – first tier active pharmaceutical ingredient (API), formulation and packaging (F&P) energy (one year in arrears, 90% of spend in each category)	109,165	96,482	78,492	Capital goods	65,611	93,024	88,314	82,935	Changes in procurement spend
Scope 3 operational footprint – pMDI use phase	688,653	778,885	829,407	Waste generated in operations	18,624	29,824	25,361	25,743	Stable
Scope 3 operational footprint total	1,109,893	1,130,640	1,184,050	End-of-life treatment of sold products	24,613	23,508	23,597	80,786	Change in categorisation of some spend areas
AstraZeneca operational footprint total (Scopes 1 and 2 and selected Scope 3)	1,777,190	1,659,071	1,658,548	Employee commuting	22,926	23,339	19,527	20,751	Stable
Total Scope 3 (all 15 Greenhouse Gas Protocol (GHGP) categories) (one year in arrears) ³	6,310,359	7,497,338	5,942,808	Upstream leased assets	22,873	23,243	26,623	29,067	Stable
tCO ₂ e per million US dollars of sales	300	375	317	Downstream leased assets	n/a	956	0	12,592	Change in categorisation of some spend areas
Scope 3 emissions using primary data (%)	15	13	17						
Air to sea conversion ⁴ (%)	54	63	63						

Environmental protection

Protect natural resources continued

Ensure the environmental safety of our products

Resource efficiency	2015	2016	2017
API syntheses meet resource efficiency at launch (%)	83	100	50

Safe active pharmaceutical ingredient (API) discharges	2015	2016	2017
Safe API discharges for AstraZeneca sites ⁶ (%)	100	100	100
Safe API discharges for outsourced suppliers ⁶ (%)	93	92	90
Number of safe API discharge supplier assessments completed	98	81	80

Environmental compliance

Compliance summary	2015	2016	2017
Prosecutions ⁷	–	–	–
Enforcement actions ⁸	1	1	–
Regulatory warnings/alerts ⁹	6	5	6
Other environmental compliance matters ¹⁰	4	9	9
Significant environmental violations ¹¹	1	–	–
Financial penalties relating to above (\$)	14,000	1,000	–

Solvent (VOC) consumption and emissions from AstraZeneca sites	2015	2016	2017
Consumption (tonnes)	7,851	8,184	3,454
Emissions (tonnes)	258	210	173

- Greenhouse gases (GHGs) from direct fuel combustion, process and engineering emissions at our sites and from fuel use in our vehicle fleet.
- GHGs from imported electricity are calculated using the GHG Protocol Scope 2 Guidance (January 2015) requiring the dual reporting using two emissions factors for each site – market-based and location-based. Market-based factors are more specific to the site and local energy market, taking account of the residual energy mix a site is sourcing power from and any certified renewable power purchased by a site. Location-based factors are the grid average emissions factor for the country (or subregion in the US) that a site is in.
- Extended operational footprint includes: Scope 1, Scope 2 and some Scope 3 emissions. It covers energy use, road fleet, process emissions, waste incineration, business air travel, primary distribution (freight and logistics), first tier outsourced supply of API and F&P (90% of spend, energy only), and patient use of pressurised metered dose inhalers (pMDIs), measured in tonnes carbon dioxide equivalent (tCO₂e). Three Scope 3 categories were reviewed and deemed not relevant to AstraZeneca: processing of sold products, franchises and investments.
- Tonne per km moved.
- Data reported one year in arrears. Some Scope 3 Categories are deemed immaterial to our operations. Primary data is used where available and gaps are filled by estimation based upon procurement spend. Categorisation of spend data can change year-to-year, resulting in significant changes in some emissions categories.
- Scope is 50 APIs for which data is available to calculate safe API discharge limits and based on 2016 manufacture.
- Prosecution: successful or pending legal action taken in a civil or criminal court against AstraZeneca.
- Enforcement action: any formal administrative or judicial enforcement proceeding, notices of violation, or similar action by a regulator that requires the company to do, or not do, something.
- Regulatory warning/alert: any formal written warning or alert received from a regulator stating that the company is in violation of an applicable SHE requirement, which if not corrected or repeated, could incur prosecution or enforcement action.
- Other environmental compliance matter: any less significant environmental compliance matter not included above.
- Significant environmental violation: those that result in a fine >\$10,000.

Ethics and transparency

Operating with integrity

Code of Ethics	2015	2016	2017
Employees trained on Code of Ethics (%)	100	100	100
Concerns reported through the company helpline*	5.3	5.4	5.9
Instances of non-compliance with the Code of Ethics*	28.4	29.0	23.4
Corrective actions taken*	37.5	32.4	29.6
Employees terminated or asked to leave due to non-compliance*	5.5	3.7	2.9

* Per thousand employees in commercial regions

Supplier assessments – third-party risk management (3PRM) process	2015	2016	2017
Supplier assessments	11,236	8,977	6,139
Supplier assessments with improvement plans	902	1,101	273
Supplier assessment completion rate (%)	87	96	95
High-risk supplier audits	79	66	41
Suppliers failing to meet required standards	65	40	12
Spend assessed through our 3PRM process (%)	60	61	78
EcoVadis assessments completed	–	–	18

Clinical trials transparency (cumulative)	2015	2016	2017
Publicly available trial summaries	–	–	34
Number of research teams granted access to AstraZeneca trials	–	–	25
Number of European Medicines Agency (EMA) policy 0070 packages published ¹	–	–	3

¹ Where AstraZeneca is the marketing authorisation holder.

² 100% approval rate reflects self-selection effect that only high relevance projects with a good justification actually come forward for approval.

Animal use standards	2015	2016	2017
In-house research (number of animals)	182,055	193,451	131,615
External contract research (number of animals)	33,220	25,651	28,545
Total	215,275	219,102	160,160
Council for Science and Animal Welfare (C-SAW) Global 3Rs Awards	3	3	3
Signatory to the Concordat on Openness on Animal Research in the UK (met requirements)	Yes	Yes	Yes

Human biological tissue	2015	2016	2017
Human foetal tissue (hFT) supplier assessments	–	–	5
hFT suppliers approved (%)	–	–	40
Active projects using human embryonic stem cells (hESC)	–	–	7
hESC projects approved ² (%)	–	–	100
Active projects using hFT	–	–	2
hFT projects approved (%)	–	–	25

Political donations	2015	2016	2017
Contributions to national political organisations, state-level political party committees and to campaign committees (\$ millions)	1.22	1.57	1.28



100%
of employees trained
on the Code of Ethics



78%
of spend assessed through
our 3PRM process

Sustainability foundations

Our focus on people

Health and safety	2015	2016	2017
Total injury rate (employees) (AstraZeneca reportable injuries per million hours worked)	1.73	1.52	1.44
Collisions per million kilometres driven	4.13	3.60	2.97
Sites promoting Essential Health Activities ¹ (%)	63	–	67
Occupational illness rate (employees) (per million hours worked)	0.28	0.24	0.30
Lost time injury rate (employees) (per million hours)	1.21	1.08	0.87
Fatalities (employees and contractors)	1	0	0
Construction contractor lost time injury rate (per million hours)	0.81	0.74	1.48

Diversity and inclusion	2015	2016	2017
Women in management: career level F (%)	42.0	43.2	44.4
Women representation on Board of Directors (%)	33.0	30.0	42.0
Women representation on Senior Executive Team (SET) (%)	31.0	33.0	36.0
Women representation on Directors of the company's subsidiaries ² (%)	27.9	28.3	35.8
Women representation in AstraZeneca employees (%)	49.8	49.9	50.1
Leadership within country of origin: Emerging Markets and Japan in roles that report to our SET (%)	15.6	14.5	13.4

 **44.4%**
of women representation
in management

 **88%**
of employees believe
in our strategy

Talent and leadership development	2015	2016	2017
Employee perception of the opportunities for personal development and growth (%)	79	73	78
Employees that have a development plan ³ (%)	88	93	66
At least one quality development discussion with their line manager (%)	87	82	83
Senior vacancies filled by internal candidates (%)	63	79	88

Employee recruitment and satisfaction	2015	2016	2017
Employee belief in our strategy (%)	89	80	88
AstraZeneca as a 'great place to work' survey score (employee satisfaction) (%)	83	74	81
Resignation rate of high performers ⁴ (%)	3.8	6.1	7.1

Philanthropy	2015	2016	2017
Total community investment, sponsorships, partnerships and charitable donations (not including Patient Assistance) (\$ millions)	–	39	25
Disaster relief product donation (total US wholesale acquisition cost value in \$ millions)	17.0	20.0	4.2
Volunteerism hours (Power of Us programme)	–	20,000	29,095
Community Investment Grants	–	848	919

Sustainability foundations

Our focus on people continued

Recalls	2015	2016	2017
FDA class I recall	1	–	1
FDA class II recall	1	2	2
FDA class III recall	8	6	10
Total FDA recalls	10	8	13
Total FDA observations	16	1	22
Total FDA inspections	9	3	14
Total inspections from all health authorities	40	33	57
Unique health authorities completing Inspections	20	18	21

Counterfeit products	2015	2016	2017
Number of raids on counterfeit products	137	147	40
Value of counterfeit products (\$ millions)	17.3	16.5	6.9
Associated arrests related to counterfeit products	140	59	60

Quality manufacturing	2015	2016	2017
Internal quality audits of AstraZeneca suppliers	428	461	477
Internal quality audits of AstraZeneca sites ⁵	40	36	35

1 Essential Health Activities defined as: healthy eating and drinking, tobacco cessation, physical fitness, workplace pressure management.

2 For the purposes of section 414C(8)(c)(ii) of the Companies Act 2006, 'Senior Managers' are the SET, the directors of all of the subsidiaries of the company and other individuals holding named positions within those subsidiaries.

3 We updated the measure in 2017 to a more rigorous target: % of employees with career and development items updated during past 12 months. Previous years are not comparable.

4 In 2015, we used a different rating system to classify 'high performance'. Number is not comparable to following years.

5 For 2017, in addition to the 35 operations sites audits, we also undertook 23 marketing company internal quality audits.