Environmental sustainability – key terms

Sustainability

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

Our sustainability strategy is built around our three pillars:

- Access to healthcare
- Environmental protection
- Ethics and transparency

Environmental focus areas

There are three environmental issues that we have identified as material to our business:

- Ambition Zero Carbon
- Product sustainability
- Natural resources

Ambition Zero Carbon

We follow a hierarchy to achieve our ambitions and by 2026 we will have eliminated, reduced or substituted most of our Scope 1 and 2 greenhouse gas (GHG) emissions, delivering a 98% absolute reduction from the 2015 base year.

We will:

- Eliminate emissions sources from the design of new assets.
- Reduce total energy consumption by 10% and double energy productivity.
- Reduce and capture F-gas emissions at our sites.
- Use 100% renewable energy for electricity and heat.
- Maximise our transition to an electric vehicle fleet.
- Compensate for the residual 2% of our Scope 1 and 2 footprint through bioenergy with carbon capture and storage (BECCS) in our energy supply chain.

From 2030, we aim to halve our entire value chain footprint (absolute Scope 3 GHG emissions) and become carbon negative for all residual emissions. To do this we have committed that:

- 95% of our suppliers by spend covering purchased goods and services and capital goods, and 50% of our suppliers by spend covering upstream transportation and distribution and business travel, will have science-based targets (SBTs).
- We will transition to next-generation respiratory products with near-zero climate impact propellants.
- We will 'design in' sustainability across product lifecycles and embed net zero into cost of goods.

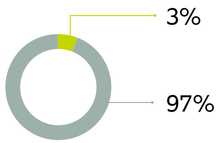
To achieve science-based net zero by 2045 at the latest we will:

- Reduce absolute Scope 3 GHG emissions by 90% from a 2019 base year and remove the residual emissions (no greater than 10% of our 2019 GHG footprint) through high-quality nature-based removals.

Scopes

Emissions are broken down into three categories by the Greenhouse Gas Protocol to enable consistent and transparent corporate reporting.

1. **Scope 1** – all direct emissions from our own activities or under our control. Including fuel combustion on-site such as gas boilers and in our fleet vehicles, and emissions of F-gases and some solvents from our sites.
2. **Scope 2** – indirect emissions from off-site combustion used to create energy that we import to our facilities, this is mostly electricity but also includes imported steam and district heating and cooling.
3. **Scope 3** – all other indirect emissions that occur on our behalf, in premises or vehicles that we do not own or control. These are usually the most significant share of a company's total GHG footprint, covering emissions associated with the full 'upstream' **value chain** of our suppliers of goods and services – from raw materials to business travel to the disposal of our waste, and it also includes the 'downstream' impact of our products when they are used and disposed.



We define our operations footprint for the 2026 target as our total **Scope 1 and 2** emissions and these are 3% of our total corporate footprint in 2023, while **Scope 3**, associated with our 2030 and 2045 targets, represents 97%.

We follow the IEMA Greenhouse Gas Management Hierarchy[1]

1. Eliminate
Through green design and new ways of working

2. Reduce
Improve efficiencies and change energy use behaviour

3. Substitute
Substitute energy use with renewables and lower impact fuels

4. Compensate[2]
Invest in credible, nature-based carbon removal projects

Reference:

1. IEMA (2020) Pathways to Net Zero. Available at: https://www.iema.net/download-document/51806 We will follow the latest science in our communications, recognising that the term "compensate" is being removed from SBTi Net Zero Standard documentation and will be superseded.
2. "Compensate" in IEMA terminology is equivalent to the SBTi term "neutralise"

As a company that follows the science, we are committed to aligning with the Science Based Targets initiative (SBTi) when setting and communicating our goals and defining our approach to residual emissions.

Net zero – the SBTi Net-Zero Standard defines corporate net zero as:

- Reducing Scope 1, 2 and 3 emissions to zero or to a residual level that is consistent with reaching net-zero emissions at the global or sector level in eligible 1.5°C-aligned pathways.
- Neutralising any residual emissions at the net-zero target year and any GHG emissions released into the atmosphere thereafter.

Carbon negative – our focus is on reducing emissions by developing low carbon sites and products and engaging suppliers to adopt better use of materials and more efficient processes. From 2030, we aim to have reduced absolute Scope 3 GHG emissions by 50%, on the way to a 90% reduction by 2045 at the latest. To mitigate the impact of our residual footprint, we are also following good practice by investing in projects that will enable us to remove those emissions that we have not yet eliminated, reduced or substituted. Our goal is that from 2030, these projects will remove more CO_2 from the atmosphere than we emit, and we will be carbon negative across our value chain.

Carbon neutral – is not the correct term for our strategy or ambition.

Greenhouse gas (GHG) – one of several gases, especially carbon dioxide (CO_2), that prevent heat from the earth escaping into space, causing the greenhouse effect. Other GHGs emitted by AstraZeneca include hydrofluorocarbons (HFCs), methane (CH_4) and nitrous oxide (N_2O).

Product sustainability

Global Warming Potential (GWP) – describes the relative potency of a GHG, taking account how long it remains active in the atmosphere. The larger the GWP, the more that a given gas warms the Earth compared to CO_2 over that time period. GWPs currently used are those calculated over 100 years.

NGP – Next generation propellant

Ecopharmacovigilance (EPV) – our approach to understanding pharmaceuticals in the environment. Our EPV process reviews emerging science and literature, looking for new information that might change the way we assess the environmental risks associated with our active pharmaceutical ingredients (APIs).

Nature and biodiversity

Nature-based solutions (NBS) – innovations inspired and supported by nature, which are cost-effective, simultaneously provide environmental, social and economic benefits and help build resilience.

Circular economy

Most of our impact on natural resources is embedded in our products and the goods and services we purchase, rather than at our sites. Adopting circular economy principles will be key to reaching our decarbonisation goals. The circular economy is based on three principles:

1. **Design out waste and pollution:** it reveals and designs out the negative impacts of economic activity that cause damage to human health and natural systems, including the release of GHGs and hazardous substances and the pollution of air, land and water. The use of finite resources is minimised.
2. **Keep products and materials in use:** it favours activities that preserve value in the form of energy, labour and materials. This means designing for durability, reuse, remanufacturing and recycling to keep products, components and materials circulating in the economy.
3. **Regenerate natural systems:** it avoids the use of non-renewable resources and preserves or enhances renewable ones.

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