# How Can the Pharmaceutical Industry Overcome Barriers to Reducing its Carbon Footprint?

**Åsa Bergström, Director of Sustainability, Recipharm explores how pharmaceutical companies can address challenges to making a meaningful contribution to global carbon emissions reduction.**

As a result of centuries of carbon and other greenhouse gas (GHG) emissions from human industrial activity, the Earth is already about 1.2°C warmer than it was in the late 1800s. Worryingly, atmospheric $CO_2$ levels continue to rise despite efforts over recent decades to address the issue.[1]

To keep global warming under 1.5°C (to minimise the worst effects of climate change), in 2015, some 195 countries, including the European Union (EU), signed the Paris Agreement. In doing so, they committed to reducing their economies' GHG emissions by 45% by 2030 and to reaching net zero by 2050.[2]

The pharmaceutical industry has a key part to play in supporting the effort to tackle climate change by reducing its own carbon emissions. However, this is easier said than done. There is more to addressing a company's carbon footprint than drawing up a list of energy reduction targets for its own sites. Every aspect of a company's operations and its supply chain needs to be explored to identify how $CO_2$ and other GHGs can be removed from key processes, how to mitigate remaining emissions and where energy savings can be made. Moreover, the greater the coordination with the wider industry, the more effective efforts will be.

How can pharmaceutical companies minimise emissions? How can they set effective targets to make a meaningful reduction in their greenhouse gas emissions and how can they coordinate with other companies to amplify their impact?

**The Importance of Target Setting**

Multiple factors have made it pressing for pharmaceutical companies not just to set ambitious GHG emissions reduction targets, but to report on progress regularly.

National governments are drawing up domestic legislation demanding reductions in GHG emissions. This is needed to meet their commitments to the Paris Agreement and related international treaties, such as the Kigali Amendment to the Montreal Protocol to phase down the use of F-gases with high global warming potential (GWP).[3] To keep operating within their home and overseas markets, pharmaceutical companies must revise their operations and governance practices to comply with these new regulations. Under upcoming EU legislation that will be in scope from 2024, companies will be required to report annually on their emissions, which increases pressure to take meaningful action to minimise them.

In light of this, increasing numbers of pharmaceutical companies are requesting that their suppliers in the value chain set and report on strict targets to reduce their GHG emissions. Setting ambitious and measurable goals demonstrates to partners and customers, as well as investors, that they can rely on the company in question to help them achieve their own carbon-reduction targets and align with upcoming regulations.

In addition, reductions in an organisation's GHG emissions can actually help minimise operating costs. By enhancing energy efficiency and reducing gas consumption, for instance, a pharmaceutical manufacturer not only contributes to a reduction in $CO_2$ emissions but also saves money. In the EU, companies can save up to €120 in carbon tax for every tonne of $CO_2$ they cut from their overall emissions.[4]

An often overlooked reason for setting more ambitious and measurable GHG emissions reduction targets is to continue to attract and hold on to talent. As in other areas of the global economy, the pharmaceutical labour market is increasingly dominated by Millennial and Generation-Z professionals. Large numbers of individuals in these cohorts are passionate about environmental and climate issues and want their employers to share these values. According to a recent report, some two-fifths of Millennials select new roles based on the company's sustainability credentials.[5] Failure to take this into account could mean a company loses out on the best talent in the future.

**The Pitfalls Facing Companies in Achieving Paris Agreement Targets**

There are several key challenges that may prevent companies from fully playing their role in achieving the Paris Agreement goals. These include:

**Uncertainty over what precisely qualifies as a company's own GHG emissions:** It remains the case that pharmaceutical companies often do not understand the scope of their own GHG emissions, meaning many organisations underestimate their impact. Many still consider the emissions from their own operations – their facilities and their own transport networks – to be the full scope of their carbon footprint.

Every part of the value chain contributes its own emissions, from external suppliers providing raw materials, to contract development and manufacturing organisations (CDMOs), to end patients and clinics disposing of waste products.

As such, the emissions across the entire supply chain should be considered when calculating GHG emissions for a company. Targets should then be set both for the emissions directly linked to the company's own operations – known as scope 1 and 2 – and for emissions in the value-chain – scope 3 – to really make an impact on efforts to meet the Paris agreement.

**Confusion over terminology and definitions:** A variety of terms are used when it comes to communications around GHG emissions, including:

- **Carbon neutral:** Referring to a specific product or business and indicating that all $CO_2$ emissions for the reporting period have been compensated for through carbon offsets. This can be done in combination with $CO_2$ reduction targets.
- **Carbon negative:** Going beyond carbon neutral through the purchase of additional carbon offsets once the full carbon footprint has been compensated for.
- **Net-zero:** Committing to purchasing carbon offsets only for the remaining emissions after reducing to the best of your ability.

For many in the pharmaceutical sector, these terms are new. As a result, there is confusion in distinguishing this terminology, which can hinder companies' efforts to set effective goals.

For example, all these terms rely on compensating for emissions by purchasing offsets – even though net-zero allows for it only after actual reductions to the best of the company's ability. When the offsets are allocated to a specific product or operation, without first reducing your own emissions, a carbon-neutral claim can be made when offsets equal emissions. To address any ambiguity regarding efforts to reduce carbon emissions, it is essential to be clear on the activities undertaken, and their impact in reducing your carbon footprint.

All this vagueness has ramifications for transparency – if the words used by a company don't have clear, commonly understood definitions, how can its partners understand its efforts and goals? This can undermine companies' efforts to identify partners capable of truly supporting their sustainability goals. So, part of your sustainability work is also transparency of the definitions you use – not only of the KPIs you report.

**Poor industry coordination over emissions reduction targets:** Insufficient visibility across the supply network makes it hard for companies to work together to determine which links in the value chain are the largest carbon contributors, highlighting which points in the chain require the most attention. This uncertainty extends to product disposal, with a lack of understanding of how drug products including packaging are disposed of at the end of their lifecycle and the role this plays in contributing to GHG emissions. This means that many companies are setting goals in isolation, limiting their impact and the industry's overall GHG reduction efforts.

The sector also needs to work on improving cross-industry communication so that best practices can be shared more effectively. Companies need to learn from each other to improve their emissions reduction initiatives. Increasing visibility would help address these issues, enabling companies to work together to identify which areas to target to better address carbon emissions.

**Coordination and Science-based Targets Can Overcome These Challenges**

These issues are serious, but they shouldn't be seen as a

daunting barrier to committing to reducing GHG emissions for pharmaceutical companies. Targets need to be ambitious, yet achievable. They need to be measurable and transparent, and the contribution of each site to the company's group-wide targets needs to be defined. Ideally, they should also be strategically coordinated with other companies up and down the pharmaceutical value chain.

With this in mind, global organisations and initiatives, such as the United Nations Global Compact, World Wildlife Fund, CDP (formerly known as the Carbon Disclosure Project) and the World Resource Institute have united in a partnership to support industry in setting emission-reduction targets in line with current science from the Intergovernmental Panel on Climate Change. This initiative has been named the Science Based Targets initiative (SBTi).

Setting science-based targets via the SBTi can help ensure climate goals are truly meaningful in reducing a company's carbon footprint. Coordinating with partners and other businesses across the pharmaceutical industry can help amplify the impact of the sector's climate-action efforts.

Today, over 3,000 companies around the world, including Recipharm, are committed to science-based target with the SBTi, with clearly defined paths to meet the Paris Agreement.

**Expert Support to Make Targets Meaningful and Impactful**

The SBTi provides independent third-party verification of a company's climate-related targets. It requires a company to calculate its emissions across three different areas:

- **Scope 1:** Direct GHG emissions from sources on site (such as fuel combustion in boilers, leaks from refrigeration, process emissions).
- **Scope 2:** Emissions from consumption on site but emitted elsewhere (such as electricity or district cooling).
- **Scope 3:** Emissions from activities in the value chain, but outside of the direct control of the company (such as carbon footprint from material to products, emissions or waste from material manufacturers' operations and waste from used products).

Calculations must be made according to the requirements of the Greenhouse Gas Protocol, an initiative that provides stringent standards for measuring emissions.

Once a company has made its calculations, it must submit them to the SBTi, which will then verify the calculations as well as the targets. The SBTi looks globally at the amount of $CO_2$ currently in the atmosphere and uses this data to determine how much each signatory company needs to reduce their emissions to do their part to meet the Paris Agreement's 1.5°C global temperature rise target. The later companies sign up to the SBTi, the less time they will have to reduce their emissions.

After emissions are calculated and targets are set, signatory companies must transparently report progress annually, through the CDP, for example, in accordance with the SBTi requirements. The reporting should be externally audited and verified to ensure accuracy and reliability.

All of this ensures that each company signed up to the SBTi is able to set and commit to targets designed to make a meaningful contribution to global efforts to meet the Paris Agreement. The initiative's reporting processes optimise transparency, enabling companies to hold their partners in the value chain to account, amplifying the effects of efforts across the industry and the wider economy. It also provides a space for companies in all sectors to share best practices to learn from each other and enhance the quality of industry initiatives.

With these kinds of partnerships, it is possible to address challenges in setting effective GHG targets, increase transparency and hold each other to account not just for companies in the pharmaceutical sector, but across the global economy.

**Looking Ahead**

The goals set by initiatives like SBTi are highly ambitious, which is necessary if the pharmaceutical industry and other sectors are to make a real contribution to efforts to limit global temperature increases to below 1.5°C.

The more pharmaceutical companies join the SBTi and other similar partnerships, the more impactful these efforts will be. Companies that join such initiatives will also find it easier to set, stick to and achieve goals, benefiting from expert advice and support. As we saw with the global fight against the COVID-19 pandemic, collaboration and partnership have helped the pharmaceutical sector address major challenges. They can help the industry do the same for climate change.

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## Åsa Bergström

Åsa Bergström owns Recipharm's sustainability strategy, and is responsible for understanding and interpreting all stakeholder requirements on sustainability and build the framework for our internal work. Sustainability is a broad topic – spanning over social and HR related matters, environment, business ethics and finance – so interacting with all functions to align the Recipharm strategy is key for success. Åsa is also responsible for all formal sustainability external reporting for Recipharm, and owns our sustainability data. With 30 years in the company, in various central roles, Åsa has a wide network and understanding of the Group.