

Rethinking sustainability in pharma

5 opportunities to go beyond
environmental responsibility

Executive summary

When we talk about sustainability in pharma, environmental impact often takes the spotlight—think carbon footprints, recyclable packaging, and waste reduction. Yet true sustainable progress, as defined by the United Nations in 1987, is about meeting today’s needs without compromising the ability of future generations to meet theirs.

In pharma, this means balancing environmental responsibility with social impact. It’s about ethical sourcing, responsible manufacturing, resilient supply chains, and ensuring that safe, effective medicines remain accessible for generations to come. That’s why ESG (Environmental, Social, and Governance) is fast becoming the gold standard for measuring sustainability performance in pharma. By adopting ESG principles, companies can better meet growing expectations from regulators, investors, and patients for more responsible corporate behavior that goes beyond just cutting emissions—while at the same time driving business performance and competitive advantage.

Benefits of adopting ESG practices in pharma

- ✓ Builds trust, mitigates risk, and attracts investment
- ✓ Keeps pace with rising regulatory demands
- ✓ Supports differentiation in the industry
- ✓ Fosters a purpose-driven workforce
- ✓ Stronger, more future-ready business

“ESG rating is more than just a score—it’s a signal of trust. For pharmaceutical companies, strong ESG performance demonstrates commitment to responsible practices across the entire value chain. A higher rating can empower stronger strategic partnerships, more robust risk management of the supply chain, and a reputational standing that enables the retention of top talent in the industry.”



Kelsey Achenbach
Vice President Pharma,
dsm-firmenich



Ready to think beyond environmental responsibility in pharma?

Read on to discover:

- Tightening sustainability-related regulations and what to keep in mind
- 5 essential sustainability pillars (beyond environmental focus)
- Considerations for choosing the right supplier
- Verilege™: where compliance meets responsibility

Tightening sustainability-related regulations—what to keep in mind

1

Proactively staying ahead of tightening regulatory scrutiny in relation to sustainability

Being proactive means viewing sustainability not as a regulatory responsibility and obligation, but also as a competitive advantage. Considerations for staying ahead can include:

- Monitoring evolving global and regional guidelines, such as the EU's Corporate Sustainability Reporting Directive (CSRD), US Securities and Exchange Commission (SEC) climate disclosures, Carbon Border Adjustment Mechanisms (CBAM), and ESG literature.
- Building trust through transparent communication with regulators and investors.
- Leveraging regulatory intelligence—not just by relying on established business partners who share similar compliance and goals, but by gaining valuable foresight from industry coalitions, trade associations, and specialist consultancy agencies who act as key sources of guidance on upcoming policies and best practices.
- Joining voluntary initiatives like the UN Global Compact or B Corp certification to demonstrate commitment and seek third-party assurance (e.g., external audits of ESG data) to boost credibility and confidence in the market.

2

New sustainability-focused regulations on the horizon

Besides corporate reporting obligations—such as CSRD and the Corporate Sustainability Due Diligence Directive (CSDD)—a new wave of sector-specific regulations is set to reshape how pharmaceutical companies operate.

The revised Urban Waste Water Treatment Directive will place stricter requirements on the monitoring and removal of micropollutants, including pharmaceutical residues, from wastewater.¹ While the Packaging and Packaging Waste Regulation (PPWR) is tightening rules on recyclability, reuse, and waste reduction, creating pressure to rethink pharma packaging design and materials.² Meanwhile, the Industrial Emissions Directive (IED) is now demanding greater accountability for emissions, resource use, and energy efficiency in pharmaceutical production facilities.³



3

Regulations shaping how pharma companies report and manage ESG performance

In some jurisdictions, but especially in Europe, sustainability reporting is becoming progressively regulated.

Companies are increasingly expected to align ESG disclosures with globally recognized frameworks such as International Sustainability Standards Board (ISSB), Global Reporting Initiative (GRI), Task Force on Climate-related Financial Disclosures (TCFD), and Carbon Disclosure Project (CDP), particularly in jurisdictions where regulations mandate standardized sustainability reporting.

The 2022 CSRD mandates standardized annual disclosures on issues such as climate change, biodiversity, human rights, and anti-corruption. From 2024, the CSDD further requires companies to identify and address adverse human rights and environmental impacts across their supply chains, supported by detailed risk assessments and mitigation measures. Together, these directives demand rigorous data collection and transparent operations—making it vital to partner with organizations that demonstrate strong sustainability expertise and accountability.

4

Steps pharma companies can take to embed sustainability

Companies that excel in ESG performance demonstrate greater long-term resilience, stronger brand reputation, and increased investor trust.⁴

To embed sustainability effectively, businesses need to go beyond surface-level commitments and integrate it into the heart of their strategy. This means weaving ESG targets into corporate objectives and treating them as key performance drivers, while ensuring leadership fully understands ESG risks and incorporates them into decision-making. Setting science-based targets and aligning them with recognized frameworks—such as the Science Based Targets initiative (SBTi)—reinforces this commitment and signals credible, measurable climate action.

Equally important is transparent reporting, which requires including ESG in annual reports and investing in systems that ensure accurate, efficient data collection. Companies should also audit ESG performance across their operations and supply chains to uncover risks like emissions hotspots, human rights concerns, or greenwashing exposure. Finally, scenario planning can help businesses anticipate how tightening regulations or carbon pricing could impact operations, profitability, and access to capital, ensuring they remain both sustainable and competitive in the long term.

5 essential sustainability pillars (beyond environmental focus)

To help advance sustainability, pharmaceutical companies need to look beyond conventional environmental efforts and adopt a broader, more integrated approach. By focusing on five key areas, businesses can create lasting value for people, the planet, and their bottom line. Explore these focus areas and discover practical ways and inspiration to take action.



1 Healthcare equity

Healthcare equity means ensuring that all people—regardless of income, geography, race, or gender—have fair access to safe and effective medicines. By embracing healthcare equity, pharmaceutical brands can future-proof their reputation, improve global health outcomes, and build more resilient, inclusive markets. Examples of actions that support this are:

- Making research and development inclusive by designing clinical trials that reflect diverse populations.
- Supporting communities with information and tools to use medicines effectively and safely.



2 Ethical & transparent supply chains

Ethical, transparent, and traceable supply chains help to support long-term and sustainable operations by minimizing environmental and social impact while reducing vulnerability to disruptions like climate change, resource scarcity, or geopolitical instability. To champion this, pharmaceutical companies could:

- Invest in technologies to unlock better traceability for Scope 3 emission calculations and targeted cuts.
- Implement fair, safe, and ethical working conditions across the supply chain.
- Adopt responsible-sourcing criteria—like prioritizing local or diversified sourcing—to protect biodiversity.
- Verify that suppliers meet sustainability criteria during the qualification process.

“The sustainability profile of a drug product is only as responsible as the chain of companies, people, and materials that bring it to life. At dsm-firmenich, we work with global platforms like Together for Sustainability (TfS) and the UN Global Compact to foster sustainable supply chains, strengthen ESG performance, and promote ethical, transparent sourcing across the value chain. We also launched a new supplier engagement program—‘Joining Forces for Net Zero’—to collaborate on decarbonization with key suppliers essential to our operations.”



Charlotte Lonchay
Senior Director Global Sustainability,
Health, Nutrition & Care



3 Corporate Social Responsibility (CSR)

CSR is about aligning core business operations with broader societal needs—creating long-term value for both people and the planet. In practice, this might look like:

- Directly improving public health outcomes via community-based projects that support underserved populations through disease prevention programs, educational campaigns, or medicine access schemes.
- Fostering a diverse, inclusive, and supportive work culture that promotes employee wellbeing and retention, contributing to a more resilient and socially responsible industry overall.
- Building manufacturing capacity closer to end markets, helping reduce transport emissions while creating jobs and opportunities to develop skills (strengthening local economies).

dsm-firmenich spotlight

dsm-firmenich empowers people to thrive by nurturing a more inclusive and equitable world for both employees and communities worldwide. As an example, we embed Inclusion & Belonging into policies, leadership accountability, and programs like Rise Together (which supports women's career growth) to help employees thrive and feel recognized. Whereas our Human Rights Policy identifies and addresses potential gaps across operations. Progress is monitored externally through Sedex Members Ethical Trade Audit (SMETA) audits, with a goal of achieving zero critical nonconformities by the end of 2025.



4 Governance

Robust governance—i.e., systems, processes, and structures that guide how a company is directed, managed, and held accountable—are essential for weaving sustainability into the fabric of a company. In a real-world context, this may manifest as:

- Building a framework where sustainability-related risks—such as supply chain ethics—are evaluated alongside financial and operational risks to ensure decisions are responsible, balanced, and futureproof.
- Public, verifiable reporting on sustainability goals and outcomes (e.g., via ESG disclosures or sustainability reports).
- Integrating sustainability into board-level agendas—for instance, setting measurable sustainability KPIs linked to executive compensation or creating dedicated sustainability committees.

The bottom line?

It's not enough to have ambitions. Sustainable progress requires clear systems of accountability from the top down, ethical oversight, and transparent reporting. When sustainability is governed at the highest levels, pharma companies can drive meaningful change across their organization and value chain that goes beyond compliance.



5 Impactful innovation

Innovation is at the heart of the pharmaceutical industry—but in today's world, R&D that focuses on scientific developments or the next breakthrough treatment alone is not enough. True innovation means finding smarter, more sustainable ways to develop and deliver healthcare.

This involves applying a substitute-improve approach, i.e., substituting materials or processes with more sustainable alternatives or improving existing solutions through innovation and efficiency gains. Examples of actions that support this include:

- Using eco-friendly delivery formats that minimize waste, use recyclable or biodegradable materials, or improve product dosing efficiency.
- Extending the shelf-life of products with technologies or solutions that improve product stability.
- Leveraging digital tools (like AI or predictive modeling) to reduce trial burden and physical material use.
- Developing production processes or adopting a circular economy model that uses fewer critical solvents, less water, and less energy to lower the environmental impact of drug manufacturing.



dsm-firmenich spotlight

Smart innovation and sustainability are deeply embedded in dsm-firmenich's DNA. Our breakthrough TheraPEA™ drug delivery solution is a prime example. This biodegradable polyester amide platform enables the development of advanced sustained delivery treatments—reducing dosing frequency while minimizing waste and emissions.

We also equip our partners with proprietary tools, like the Sustainability Imp'Act Card™, which deliver transparent, science-based insights on environmental footprint, traceability and social impact on ingredient level.

Partnering for progress: choosing the right supplier

Making progress in sustainability alone can be complex in any industry. But it is especially challenging in the pharma category with stringent regulations, globally dispersed and multilayered supply chains, rigorous patient safety standards, and energy-intensive manufacturing processes all creating barriers.

That's why collaboration is essential. Working with strategic partners who understand the unique demands of the pharma landscape can help companies make meaningful progress towards sustainability goals. So, what should pharma businesses look for in a sustainability-aligned supplier?

Considerations for choosing the right supplier

- ✓ Demonstrates sustainability not in words, but measurable action
- ✓ Validated SBTi emission reduction targets
- ✓ Commitment to people and social sustainability (ESG)
- ✓ Transparent and traceable operations
- ✓ Invested in sustainable innovation
- ✓ Open to collaboration and knowledge-sharing

Sustainability at the heart of everything

At dsm-firmenich, we are committed to driving measurable sustainability. In 2025, we achieved 100% renewable electricity sourcing, proudly powering all our operations sustainably. By 2030, we aim to cut our Scope 1 and 2 greenhouse gas emissions by 42% and Scope 3 emissions by 25% (versus 2021).

Beyond emissions, we are targeting a 10% reduction in water intensity at sites in water-stressed regions, while also working to close the global micronutrient gap—reaching 1 billion vulnerable people by 2030. In parallel, we are designing our 2030 nature strategy to protect and restore biodiversity in high-value and high-risk supply chains, embedding nature considerations across our operations, value chains, and landscapes.

dsm-firmenich participates in leading ESG benchmarks, many recognizing us as a sector leader. In 2024, our key outcomes included:

- **CDP (formerly the Carbon Disclosure Project):** Leadership in Water Security; management level in Climate Change.
- **EcoVadis:** Platinum rating, placing us in the top 1% of companies assessed.
- **FTSE4Good:** Constituent of the index for exemplary ESG practices.
- **ISS (Institutional Shareholder Services) QualityScore:** 'Prime' rating and low-risk QualityScore; B- puts us in the top decile.
- **MSCI (Morgan Stanley Capital International):** Rated 'AA' for carbon mitigation and business ethics.
- **Sustainalytics:** Low risk of ESG-related financial impacts; included in Top-Rated ESG Companies List.

Introducing Verilege™: where compliance meets responsibility

We understand that managing the intricacies of regulatory compliance, ensuring ingredient quality, and meeting sustainability targets is a challenging task. That's why our API portfolio is elevated by Verilege™, a distinct suite of expert services and superior customer care designed to help pharma companies navigate the evolving landscape with confidence.

Verilege™ simplifies the drug approvals process by helping pharma companies:

- Navigate regulatory hurdles with ease.
- Count on consistent high-quality and pharma standards.
- Unlock new markets and opportunities.
- Progress health sustainably.
- De-risk supply chains geographically.

It is also available at tiered service levels that can be adapted to specific needs, whether that's basic guidance or advanced, hands-on support.



Quality services



Regulatory services



API portfolio elevated by Verilege™

Sustainability services



Supply Chain services



Verilege™ goes beyond pharma compliance

Within our sustainability offering, we can support with:

- Life Cycle Assessments (LCAs) expertise in accordance with ISO 14040/44 standards, quantifying the environmental impact of our solutions. We develop greenhouse gas (GHG) emission reduction roadmaps at site and ingredient levels, helping you to advance your decarbonization efforts.
- Transparent information sharing, providing access to our primary data, sustainability targets, and certifications (EcoVadis, SBTi), enabling you to assess dsm-firmenich as a supplier and make informed purchasing decisions.
- Our Sustainability Imp'Act Card™ program which offers detailed, science-based metrics on the environmental footprint of our products at an ingredient level, including traceability, certifications, and social impact data (Sedex).
- Expertise and customized support for sustainability questionnaires, emission calculations, or joint development of a sustainable solution.

Together elevating patient care

We go beyond the essential to support the development of more sustainable and desirable therapies that improve the health of patients worldwide.

Together we can develop safe, effective drug formulations that are inspired by patients and delivered by experts. Leverage our high-quality ingredients portfolio, customized expert services, a global network of production facilities, and leading innovation capabilities to co-create therapies that elevate health for people living with disease.

Connect with an expert

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