

Plan to Accelerate Climate Action

Owner: Group Sustainability VP Climate and Nature





1. Purpose

This Plan to Accelerate Climate Action aggregates, and further enhances, the climate-related disclosures from dsm-firmenich's Integrated Annual Report (IAR) 2023 (published February 29, 2024) into one all-encompassing document. This plan helps align the organization around what we need to do to achieve our climate goals by establishing specific strategies, setting ambitious targets, and defining clear accountability for delivering and tracking progress.

2. Introduction

At dsm-firmenich, we bring progress to life by combining the essential, the desirable, and the sustainable. This means sustainability never stands alone or on the sidelines. Instead, it lives in our purpose; at the heart of what we do and who we are. The combination of the essential, desirable, and sustainable is our unique contribution to the world and what drives the progress we bring to people and planet.

While we recognize that climate and nature as intertwined, and that both must be addressed, this document focuses specifically on addressing climate change.

Climate change is one of the most pressing issues of our time. Urgent and decisive action is needed to both mitigate its impacts and adapt to the inevitable volatility that the planet is experiencing today and will continue to experience in the future. At dsm-firmenich, we acknowledge these challenges and are committed to fulfilling our responsibility to accelerate climate action throughout our business, our value chain, and beyond. dsm-firmenich has been, and will continue to be, an industry leader not only in our commitment to ambitious climate targets, but also in our unrelentless drive to deliver against these targets.

3. Our approach

Our climate approach is focused on both climate change mitigation and climate adaptation in our own operations and value chain, as shown in the framework below. We also have a unique opportunity to reduce climate impact through the products and services we sell: products like the methane-reducing feed additive Bovaer® and our suite of enzymatic solutions, which enable our customers to significantly decarbonize their own value chains. This allows us to go beyond our own sites and supply chains, to help to decarbonize the world at scale through avoided emissions.



	Climate change mitigation			Climate adaptation
	Reduce our own emissions	Reduce the emissions of others	Increase permanent carbon removals	Increase resilience
In our own operations	Reduce our direct emissions and procure renewable electricity (Scope 1 and 2)	Collaborative customer and consortia projects on waste, transport, renewable energy, etc.	Carbon removals in our operations	Protect our operations from physical risks
In our value chain (up/down stream)	Reduce our indirect emissions (Scope 3)	Reduce the emissions of others through our products and services ('avoided emissions')	Carbon removals in our supply chains	Protect key supply chains from physical risks

Our climate mitigation activities, aligned to the latest 1.5°C global warming science, include:

- Reducing direct emissions in our own operations (Scope 1 and 2) through operational efficiency improvements and our renewable electricity transition strategy.
- Reducing indirect emissions in our value chain (Scope 3) through engagement and collaboration with our suppliers, additional value chain improvements, and new designs and technology.
- Collaborating with our customers to avoid emissions in their own operations through the products and services we offer.
- Using carbon removal technologies to ultimately deliver our net-zero target in alignment with the Science Based Target initiative (SBTi) standards, but with no reliance on carbon credits to achieve our near-term targets, in alignment with the latest guidance.

With respect to climate adaptation, a risk-based approach helps us identify and assess risks and opportunities. In turn, this enables us to build further resilience into our own operations and value chain.

4. Scope of our GHG emissions

This plan is designed to cover the full scope of dsm-firmenich's impact on the climate and the impact of the climate on dsm-firmenich. As such, this includes both our own areas of operational control and our up- and down-stream value chain.



dsm-firmenich's Scope 1 and 2 emissions arise primarily in our manufacturing sites, pre-mix sites, distribution centers, offices, labs, and research sites, owing to activities such as fuel combustion (e.g., for process heating) and purchasing electricity. Scope 1 and 2 emissions represent less than 10% of dsm-firmenich's footprint. We have already made significant efforts to reduce our emissions and transition our purchased electricity to renewable sources.

Scope 3 emissions, which make up the majority of our Group greenhouse gas (GHG) footprint, are largely the emissions of our upstream supply chain in producing the goods and services we require to manufacture our products. Other Scope 3 emission sources include in-/outbound logistics, operational waste, and downstream emissions from the use of our products.

We use all 15 Scope 3 categories apart from category 13 (downstream, leased assets) and category 14 (franchises) to calculate our GHG inventory. Four categories are relevant to our near-term SBTi targets, which cover 77% of our Scope 3 emissions and are discussed below. These categories are:

- Category 1: Purchased goods and services
- Category 3: Fuel and energy-related activities
- Category 4: Upstream transportation and distribution
- Category 5: Waste generated in operations

5. Governance

Our overall sustainability governance framework, of which climate is a core part, was implemented on April 18, 2023, when dsm-firmenich's shares were first traded on Euronext Amsterdam.

Sustainability governance framework

Board of Directors

As our highest executive oversight body, the Board of Directors has the ultimate authority on matters relating to sustainability, including climate. The Board of Directors has established a Sustainability Committee that is responsible for reviewing the company's sustainability ambitions and its sustainability performance¹.

¹ <https://www.dsm-firmenich.com/corporate/our-company/leadership/board-of-directors.html> and <https://www.dsm-firmenich.com/corporate/investors/corporate-governance.html>.)



Executive Committee

The Board of Directors delegates responsibility for the management of the company to the Executive Committee, led by our Chief Executive Officer (CEO). This includes pursuing leadership on sustainability and implementing our sustainability commitments. For example, with the Board of Directors' endorsement, the Executive Committee approved the science-based targets (SBTs) that dsm-firmenich submitted to the SBTi for validation in early 2024².

Functional leadership of sustainability

We have established Functional Leadership Teams to manage specific sustainability-related topics. Each team is chaired by a senior executive. The Functional Leadership Teams that are involved in climate governance are described below.

Sustainability at Group level

At Group level, sustainability is steered by the Global Sustainability Leadership Team (GSLT). The GSLT is comprised of senior sustainability leaders representing Group Sustainability, the Business Units (BUs), and relevant functions. The GSLT is chaired by the Chief Sustainability Officer (CSO), who has a direct reporting line to the CEO. The GSLT drives the company's sustainability agenda and ensures it is translated into our BUs' and functions' sustainability strategies. Key topics on the GSLT agenda include climate, nature, social impact (including human rights), nutrition, and sustainability reporting.

The GSLT is supported in its work by the Group Sustainability function, led by the CSO. Group Sustainability identifies emerging sustainability trends, provides topical expertise, and supports the company on cross-cutting sustainability themes. Meanwhile, BU sustainability teams ensure the identification and management of BU-specific topics, priorities, and strategies.

Operations and Safety, Health, & Environment and Security

The Operations Leadership Team drives excellence and competitive advantage in operations. It defines our operations strategy and ensures that our operational standards are consistently applied by providing joint direction, building community, and identifying and jointly executing synergies and value creation.

The Safety, Health, & Environment and Security (SHE&S) Leadership Team ensures SHE&S at dsm-firmenich is fit for purpose: both to safeguard employees' and customers' safety and health and to protect the environment and our assets. It sets the relevant strategy, policy, requirements, and standards to deliver on these aims.

² <https://www.dsm-firmenich.com/corporate/our-company/leadership/executive-committee.html>



The Operations and SHE&S Leadership Teams are supported by Functional Leadership Teams and Functional Networks that connect our overarching strategies and standards with function- and BU-level planning and execution.

Procurement

The Procurement Leadership Team (PLT) is responsible for ensuring the implementation of our Responsible Sourcing Framework, including reviewing progress on a regular basis. Our Chief Procurement Officer (CPO), who chairs the PLT, reports directly to the Chief Operations Officer (COO) and is responsible for deploying the Responsible Sourcing Standard within our supply chain. The standard and strategy, together with guidance and priority-setting, are defined by the Responsible Sourcing team. This team is overseen by the Head of Responsible Sourcing, who maintains a dual reporting line to the CPO and the CSO. The GSLT acts as a sparring partner to ensure our responsible sourcing strategy is in line with the Group's ambitions and commitments.

6. Our commitments

In 2023, dsm-firmenich's climate commitments comprised the SBTs inherited from the two legacy companies. Both legacy companies had SBTi-validated near-term SBTs in place, developed in line with the special report of the Intergovernmental Panel on Climate Change (IPCC) on the impacts of global warming of 1.5°C. Former Firmenich also achieved validation of its net-zero SBT in 2022.

In January 2024, dsm-firmenich submitted to the SBTi for validation an update to our near- and long-term SBTs in line with the SBTi's Corporate Net-Zero Standard. We expect to receive validation in the second half of 2024. These new targets harmonize the various legacy targets and reconfirm our ambition of being a climate leader.

With these new commitments, we aim to:

- Reach net-zero emissions in our direct operations and value chain (i.e., Scope 1, 2, and 3) by 2045. Meeting the SBTi's Corporate Net-Zero Standard means at least 90% decarbonization and the use of high-quality offsets for up to 10% of base-year emissions, with the determination of "high quality" being subject to evolving, third-party standards.
- Achieve an absolute emission reduction of 42% for Scope 1 and 2 and 25% for Scope 3 by 2030 from a 2021 baseline, without the use of carbon credits. This harmonized and simplified near-term target is aligned with our historic approach.
- Reach 100% purchased renewable electricity (i.e., Scope 2) by 2025, building on our ambition to be a frontrunner in the renewable electricity transition.



7. Strategy development

Materiality Matrix

Against the dynamic backdrop of sustainable business practices, our commitment to transparency and stakeholder engagement takes center stage. At the heart of our disclosure strategy lies the Materiality Matrix, updated on an annual basis and communicated via the Integrated Annual Report. This powerful tool not only reflects our dedication to responsible corporate governance but also serves as a compass for our sustainability journey. It guides us in determining our sustainability priorities and keeping our goals and performance indicators in line with both the latest sustainability developments and our stakeholders' expectations and concerns. Furthermore, the Materiality Matrix consultation process is a valuable tool for engaging our colleagues, customers, suppliers, and investors in our sustainability journey, by including them in defining our future direction.

The materiality assessment identified climate change mitigation as a material topic based on both financial materiality and impact materiality. Furthermore, it was recognized as one of the top material topics by all stakeholder groups that participated in the assessment. Climate adaptation was identified as financially material. For more information on the Materiality Matrix and assessment, see the Integrated Annual Report.

Scenarios, risks, and opportunities

Climate-related risks such as heatwaves, drought, and water stress may impact our sites and our value chain. As a complement to our efforts on climate change mitigation – reducing and stabilizing GHG emissions to combat the root cause of climate change – we also assess the vulnerability of our assets and value chains to climate change. We are mapping the impact of physical climate change, both upstream (suppliers, agricultural commodities) and downstream (end market). We also assess risks and opportunities for our business related to the transition to the net-zero economy.

In line with the guidance of the Task Force on Climate-related Financial Disclosures (TCFD), we use climate scenarios to assess risks and opportunities for our business over multiple time horizons, as far as 2050. The scope of these scenarios is not limited to our own operations but also includes the full value chain. The scenarios are based on the IPCC's temperature models, known as the Representative Concentration Pathways (RCPs):

- 1.5°C (RCP 2.6)
- 2°C (RCP 4.5)
- 3+°C (RCP 8.5)

For the transition to a net-zero world, we enrich the IPCC scenarios with forward-looking business context (e.g., regulations on land and or water use, eco-footprint of products, shifts in consumption patterns).



Our approach to assessing climate risks and opportunities is twofold:

- For **physical climate risk assessments**, we use desk research to carry out a high-level screening of physical hazards: extreme heat, drought/water scarcity, flooding/precipitation, high winds, wildfire (RCP 4.5, RCP 8.5). This provides us with the major impact factors for our portfolio. We then carry out on-site deep dives to obtain a more detailed understanding of the actual risks for our assets.
- For **transition climate risk assessments**, we organize separate sessions – with input from experts and senior management – to assess risks and opportunities for each scenario.

The material risks identified through the physical and transition climate risk assessments are integrated into and managed as part of our regular risk management processes.

Financial planning

This Plan to Accelerate Climate Action is aimed at enhancing our business's resilience and generating business opportunities for and in the future. To achieve our ambitions, however, we need to make investments in both operational expenditures (OpEx) and capital expenditures (CapEx). Assessing these investments and integrating them into our Group and BU business plans is key to delivering this plan.


Within Scope 1 and 2, including purchased renewable electricity, the Group has shown great diligence in how we prioritize investments to secure the targeted decarbonization levels. dsm-firmenich will continue to commit financial resources to the net-zero transition while also engaging our suppliers and other partners to implement low-carbon technologies. Investments are typically not linear, as large projects may take multiple years to mature. Moreover, opportunities depend on the technology available at a given time as well as the local economic and regulatory context.

Overall ownership of managing our exposure to the decarbonization plan and of the integration into our budgeting and investment processes lies with the Group Finance team, in collaboration with the BUs. Each BU undertakes its own analysis of the financial implications of the plan, considering the phased adoption of different decarbonization opportunities.

This information will be published progressively in accordance with the CSRD.

Policy engagement and industry collaboration

dsm-firmenich is a member of various industry associations and advocacy organizations committed to advancing strategic topics directly related to our sustainability initiative 'People. Planet. Progress.'. We are active in these bodies at both



the international level and the national level in countries where we operate. Additionally, dsm-firmenich has signed several business, environmental, and social charters related to our initiatives.

Our climate-related collaboration platforms include:

Business Ambition for 1.5°C

dsm-firmenich was one of the first companies to sign the Business Ambition for 1.5°C pledge of the UN Global Compact, thereby committing to reach net-zero emissions by 2050 over our entire value chain, in accordance with the 1.5°C path of the IPCC.

RE100

We are a member of RE100, the Climate Group's initiative comprising leading companies that have committed to obtaining 100% of their electricity from renewable sources as soon as possible.

Science-Based Targets initiative (SBTi)

In early 2024, following the SBTi Corporate Net-Zero Standard, we submitted our net-zero SBTs for validation by the SBTi. We aim to achieve net zero by 2045, in line with the ambition of keeping global warming below 1.5°C and with the latest climate science.

Task Force on Climate-related Financial Disclosures (TCFD)

The TCFD has set out climate-related financial disclosures for companies to use to provide information to their stakeholders. These are mandatory under Swiss law. We report against the TCFD requirements in our IAR, which contains our TCFD-relevant disclosures on Governance, Strategy, Risk Management, and Metrics and Targets.

Task Force on Nature-related Financial Disclosures (TNFD)

As a TNFD Forum member, we join over 750 organizations in supporting the TNFD's mission and consulting on the development of its framework.

World Business Council for Sustainable Development (WBCSD)

We are a member of the WBCSD, participating in several working groups and coalitions. Our CSO, Katharina Stenholm, is a WBCSD Council member and a Board member of the Agriculture and Food pathway.

World Economic Forum (WEF)

We are a member of the WEF Alliance of CEO Climate Leaders and engage in several of WEF's climate-related pillars. We also take part in the annual Davos summit, with senior leaders including our CEO, CSO, and Chief Science & Research Officer having attended previous summits.



WeMeanBusiness

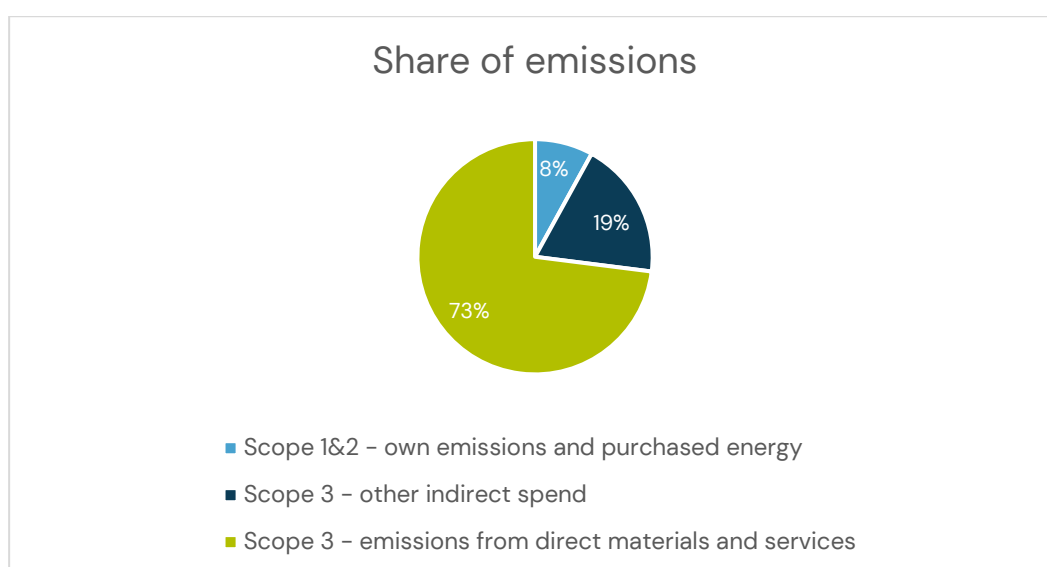
We are a signatory of the [Fossil to Clean Letter](#), urging national governments to scale clean energy and end our reliance on fossil fuels.

8. Roadmaps and levers

Main decarbonization levers toward 2030

The focus of this plan is to deliver on our 2030 near-term SBTi climate targets while planning and building the capabilities required to deliver net zero by 2045.

dsm-firmenich's emissions are heavily weighted toward Scope 3, as the data from our Integrated Annual Report 2023 shows. Nevertheless, our decarbonization focus spans our value chain: from upstream, through our own operations, to downstream.



Scope 1 and 2

To deliver on our Scope 1 and 2 target – to reduce absolute emissions by 42% by 2023 versus a 2021 baseline – we have developed a rigorous and continuous process of identifying and implementing new initiatives to lower our own emissions. This process, which has shown tremendous success over the past few years, builds on two parallel activities:

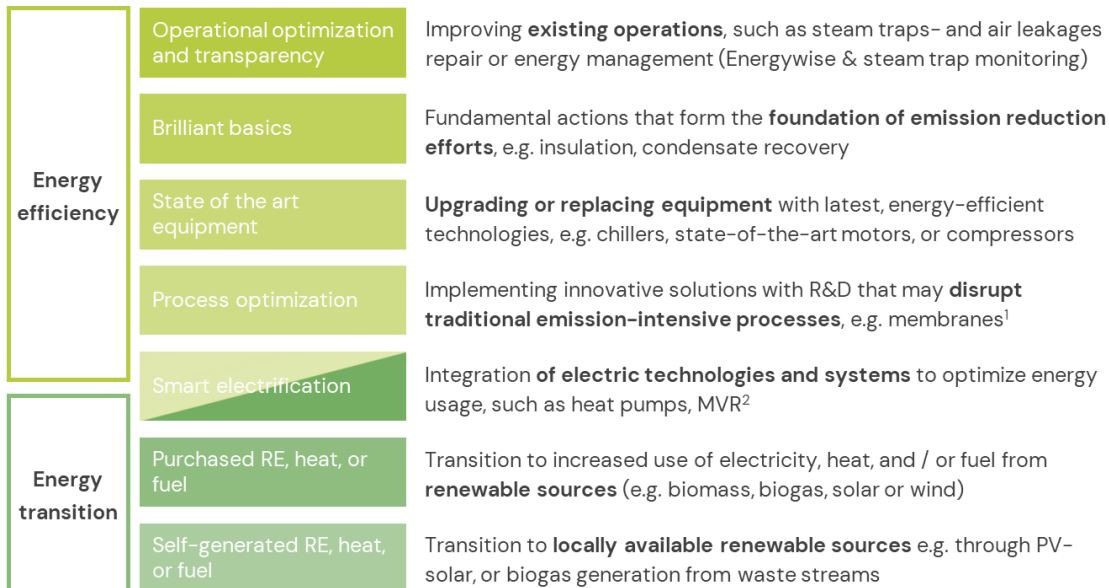
- Identifying site improvement opportunities (e.g., site deep dives and energy scans).
- Reviewing the deployment of sustainable technologies (e.g., energywise and heat pumps).

Twice a year, our approach culminates in the creation of a detailed, bottom-up Scope 1 and 2 GHG roadmap. This multi-year roadmap evaluates gaps at the site, BU, and Group level and the resources necessary to close the gaps. We review implementation

throughout the year and build it into our annual financial planning and CapEx allocation cycle.

The roadmap consists of two key pillars (as shown in the diagram):

- Reducing our energy consumption through energy efficiency measures.
- Transitioning toward renewable energy over time, with an initial focus on increasing the amount of purchased renewable electricity.



1. Concentrate first, before drying | 2. mechanical vapor recompression | 3. for example, with specialized institutions or governments (for subsidies)


Energy efficiency

Energy efficiency improvements result from the development and implementation of multi-year project plans that are continuously improved to generate maximum savings per investment, thereby also supporting business resilience. Our energy efficiency projects are wide ranging in nature, including optimizing processes, ensuring the basics (such as insulation or heat recovery) are in place, and implementing best-available techniques in support of innovation and the implementation of digital solutions.

Our 2023 delivered program, for example, consisted of more than 50 projects that will mostly contribute to the reduction of our Scope 1 and 2 emissions in 2024 and beyond. These cover a wide range of sites and technologies. We improved steam distribution, for instance, in Yimante (Hubei province, China), Delft (the Netherlands), and La Plaine (Switzerland), while generating steam from reactions in Lalden (Switzerland).

In 2024, our portfolio also contains around 50 active projects, large and small, to maximize the CO₂ savings per euro invested. Projects include:

- Heat pumps that reduce site GHG emissions through smart electrification – three projects in China and one in Europe, saving >5 kt CO₂e.

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- Optimized operations and maintenance through digital solutions – steam trap monitoring at seven sites, saving >10 kt CO₂e.
 - Moving to electrical compressors to allow significant steam system optimization through rental boilers – saving ~145 kt CO₂e in the Netherlands.
 - Improved heat recovery in boiler houses – saving ~0.5 kt CO₂e in Brazil and ~1.3 kt CO₂e in the USA.

Energy transition

We are a member of RE100, the Climate Group's initiative comprising leading companies that have committed to obtaining 100% electricity from renewable sources as soon as possible. We are committed to purchasing 100% of our electricity from renewable sources by 2025. In 2023, we realized 88% purchased renewable electricity, putting us well on track to achieving our target.

To reach our renewable electricity targets, we are focusing on three areas:

- Large Power Purchase Agreements (PPAs)
- Local retailer agreements for "green" electricity
- Limited amounts of unbundled Energy Attribute Certificates (EACs)

Our progress toward our purchased renewable electricity target in 2023 was driven by the following initiatives:

- For our operations in Europe, we maintained 100% renewable electricity thanks to existing agreements, fewer separate guarantees of origin (GOs), and pre-production GOs from our PPA in Spain. This PPA combines three assets: a wind park and one solar park are operational while another solar asset is under construction. In the Netherlands, we have two PPAs with wind parks, both already operational.
- In the USA, we have concluded three PPAs. The first is operational and produces electricity from wind; the other two assets are under construction and will provide solar-powered electricity. The production from the first agreement and the pre-production renewable energy certificates (RECs) from the other two agreements provided us with 100% purchased electricity from renewable sources in the USA and Canada in 2023. We were also able to identify and implement merger synergies across our PPAs in North America and Europe.
- In China, we purchased 44% of our electricity from renewable sources in 2023. In addition, we concluded several five-year agreements that will further increase the amount of renewable electricity we are provided with from 2024 onwards.

We also continue to use renewable sources of steam and heat, including a biomass cogeneration plant in Sisseln (Switzerland), purchased steam from local biomass residues in Chifeng (Inner Mongolia, China), purchased by-product heat from a neighboring company in Yimante (Hubei province, China), a combination of biomass from local reforestation and bio-based by-products in Vielle-Saint-Girons (France), and

forestry residues and by-products in Castets (France). Low-carbon heat solutions (see map) have become more prominent in our GHG reduction program; we are working to optimize the use of waste streams and exploring opportunities with external providers.

dsm-firmenich sites using renewable or low-carbon steam



Scope 3

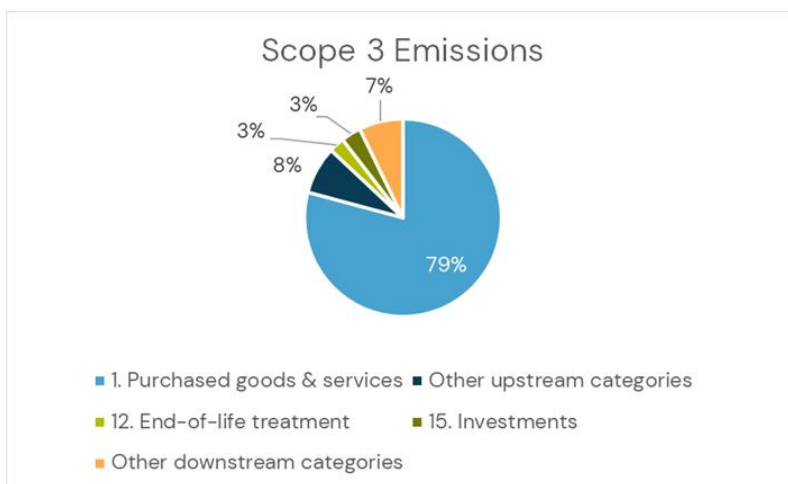
Our commitment to sustainability extends across our entire value chain. Tackling Scope 3 emissions is essential for achieving significant climate progress. It also drives us to look for opportunities beyond our own operations to support green innovations, boost operational efficiency, and develop resilient, sustainable business models that can succeed in a low-carbon economy.

In working toward this ambition, we are building on the work previously done by both our legacy entities and leveraging our combined strengths to drive impactful change. We have set ambitious Scope 3 targets for both the near and long term, aiming to be 1.5°C aligned by 2030 and/or net zero by 2045:

- Reduce our absolute Scope 3 emissions by 25% by 2030 (versus 2021 baseline).
- Reduce our Scope 3 emissions by 90% by 2045 (versus 2021 baseline).

We calculate our dsm-firmenich GHG inventory every year. In 2023, as documented in our Integrated Annual Report, our absolute Scope 3 GHG emissions amounted to 9,996 kt CO₂e. In accordance with the GHG Protocol, we report on all 15 categories except for categories 13 and 14, which are deemed immaterial based on WBCSD's "Guidance for Accounting & Reporting Corporate Emissions in the Chemical Sector Value Chain" for Scope 3 reporting.

The chart below shows the breakdown of our Scope 3 emissions (2023 IAR):



We are working on initiatives to drive emission reductions across all relevant Scope 3 categories. In doing so, we aim to create value for our suppliers, our customers, and the wider industry by stimulating continuous improvement and collaborating on the development of products with a low carbon impact.

Our near-term Scope 3 target covers four emission categories:

- Category 1: Purchased goods and services
- Category 3: Fuel and energy related activities
- Category 4: Upstream transportation and distribution
- Category 5: Waste generated in operations

Our approach is carried out with transparency, with clear methodologies discussed in our Integrated Annual Report and duly verified by our auditors under reasonable assurance and through other relevant platforms like CDP.

We take accountability for our role in the decarbonization of our industry and have set ambitious targets that are being validated by the SBTi. We will continuously monitor our progress to ensure our actions align with our commitments, as well as engaging with our suppliers to encourage them, in turn, to take accountability and set SBTi targets of their own. Furthermore, we are working toward using primary activity-based data to drive actionable insights. dsm-firmenich is also a member of the Partnership for Carbon Transparency (PACT) program.

We believe that reducing Scope 3 emissions is a challenge that requires collaboration both within and beyond our organization, including effective business integration. Our teams across multiple functions and BUs therefore work collectively toward common goals. As the opportunities and potential of emission reductions are closely linked with our BUs' product strategies, our main levers for Scope 3 reductions are clustered around:

- Product/market portfolio optimization and product innovation
- Supplier optimization

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- Operations optimization

Supplier engagement and collaboration through responsible sourcing


The challenges facing our world in the next decade are such that dsm-firmenich cannot successfully address them alone: we must engage our suppliers on our journey. We therefore seek to inspire our suppliers with a collaborative approach that reinforces the resilience of our supply chain and contributes to the Group's strategic objectives. We want to assure our supply chain partners that they are not alone, and that they can connect with us, their industry peers, and their customers to jointly drive continuous improvement.

All dsm-firmenich suppliers must reach certain minimum requirements, including adherence to our Responsible Sourcing Standard (part of our Supplier Code). The Standard presents our minimum expectations of suppliers across the climate-related topics shown below. Additionally, through our Supplier Engagement Program "Joining Forces," and particularly the "Joining Forces for NetZero" pillar, we engage our suppliers using supplier days, training, and decarbonization deep-dives, exploring collaborative projects together.

Our suppliers must meet the following requirements:

- Implement an environmental management system and demonstrate continuous improvements, including a reduction in raw materials consumption, energy, emissions, water usage, waste and reliance on natural resources and hazardous substances.
- Accelerate energy transition by sourcing at least 50% of electricity from renewable source by 2025.
- **When requested by dsm-firmenich:**
 - Set and disclose a science-based greenhouse gas (GHG) emission target aligned with 1.5°C ambition of the 2015 Paris Agreement, across Scope 1, 2 and 3 emissions.
 - Share product carbon footprint data or collaborate in collecting data when required by dsm-firmenich.
 - contribute to dsm-firmenich's target of achieving a 25 % absolute reduction vs baseline 2021 in our Scope 3 GHG emissions by 2030.

We invite key suppliers to develop detailed plans for reducing their environmental impact. We also join forces with our supply chain partners to tackle climate change: together with key suppliers, we develop emission-reduction roadmaps for our raw materials as part of our reduction ambitions. Moreover, we engage with suppliers on



setting their own SBTs: this is an annual objective for all our dsm-firmenich buyers and a top Procurement priority.

Our goal is to see a return on these investments in the form of long-lasting, sustainable business relations and continuous improvement throughout the industry. Furthermore, materials with a low (carbon) impact will provide benefits not only to dsm-firmenich but also to our suppliers' other customers.

Optimizing transportation and distribution

We are establishing a unified and integrated methodology for transparent reporting, while also developing reduction strategies focused on mode optimization, route management, and load consolidation. Our vision for sustainable logistics is to create value for our customers and minimize our impact on supply chains through network optimization projects and dynamic, data-driven decisions that prioritize greener alternatives.

Partnering with our Operations teams

In addition to contributing to efficient production processes and thereby increasing material efficiency (e.g., through lower material consumption and carbon input), we are developing waste reduction roadmaps and optimizing our energy mix to reduce our emissions in categories 3 and 5.

Forest-risk commodities

The GHG emissions from the production of our key forest-risk commodities (including palm oil, timber, soy, and cocoa) arise from land use change (e.g., deforestation), agricultural practices, and downstream processing. To protect these forests and natural ecosystems, and to achieve deforestation- and conversion-free supply chains, we ask our suppliers to certify their crop-based raw material through third-party, independent certification schemes.

In 2023, and as documented in our Integrated Annual Report, 71% of our relevant sourced volume was assessed as deforestation free, according to certification schemes issued by non-governmental organizations (NGOs) such as the Roundtable on Sustainable Palm oil (RSPO), Bonsucro, and Proterra. This relates to our Tier 1 supply chain for the crops we source that are prone to deforestation risks: palm oil and derived products, sugarcane, and direct soy and corn products. We also obtain RSPO mass balance (MB) certificates for our palm oil and derivatives as a way of mitigating risk in our supply chains. However, as the segregation model is considered the best approach for demonstrating whether a product is deforestation free, we do not include MB in the calculated percentage.

Obtaining a supply chain certificate enables our suppliers to highlight their dedication to tackling deforestation, preserving biodiversity, and addressing human rights issues.



This will be an integral part of the performance criteria for dsm-firmenich suppliers. We carefully monitor updates to the European Union Deforestation Regulation (EUDR), helping to secure our supply chains for the future.

Science and research

Building on a pioneering tradition that reaches back more than 125 years, our Science & Research organization comprises more than 2,000 employees working on innovation across 15 R&D hubs around the world.

We are united in the pursuit of sustainable and transformative innovation for nutrition, health, and beauty. With a track record of world-class scientific leadership and a uniquely broad portfolio of ingredients, we apply creative expertise and proven science to improve health and well-being and address the global challenges of sustainable delivery.

dsm-firmenich drives the development of disruptive products and technologies with an end-to-end innovation approach. Sustainability is embedded from the outset and throughout every stage of the process – from discovery, pre-clinical, and clinical studies, through application development, to scale-up and industrialization.

By harnessing the expertise of our scientists and investing in our multidisciplinary approach, Science & Research brings progress to life, driving innovation that addresses global challenges and unmet needs in nutrition, health, and beauty. We provide industry-leading science and research capabilities to drive the innovation required to deliver on our purpose and to provide differentiated solutions that combine the essential, the desirable, and the sustainable.

In our Perfumery & Beauty (P&B) BU, for instance, we recognize the imperative to reduce carbon emissions, with this commitment extending throughout our entire value chain – from sourcing ingredients to delivering solutions to customers and consumers. Our Ingredients segment explores new innovations, such as the low-carbon bio-based alternative, Dihydroestragol RC. We also foster partnerships, for example by signing a joint development agreement with Bloom Renewables, aimed at expanding biomass feedstock sourcing, and accelerating the development of key low-carbon bio-based ingredients.

Taste, Texture & Health (TTH) is another BU where our dedication to sustainability goes beyond ingredients and into our product range. Here, for example, we use eco-design to create fragrance and flavor solutions with lower carbon emissions, using our digitally integrated EcoScent Compass® and EcoFood Compass®.



Decarbonization beyond 2030

Beyond 2030, to reach our 2045 net-zero commitment, dsm-firmenich will need to reduce our absolute Scope 1, 2, and 3 GHG emissions by at least 90% compared to our 2021 baseline. To achieve this, and in line with the SBTi Corporate Net-Zero Standard, we will advance aggressive decarbonization throughout the value chain and then compensate or neutralize residual emissions using high-quality carbon removals.

Value chain decarbonization

dsm-firmenich will build on the decarbonization foundation put in place before 2030. This will be reinforced by additional actions predominantly led by our global and BU Science & Research teams. We also expect that advances in technology, boosted by a dedicated advocacy agenda for supportive government policies, will make a wider range of decarbonization options not only available but also cost effective at scale.

The future opportunities we are working on across our organization include:

- Science & Research and BU innovation: novel manufacturing platforms, fossil-/sugar-free manufacturing platforms
- Operations: enabling 100% renewable heat with no waste
- Business: new products and value chain partnerships
- Procurement: low-carbon feedstocks
- Finance: securing sustainable financing/incentives
- Policy: low-carbon mandate to level the playing field

Of significant concern for dsm-firmenich is the need to carefully balance the connections between climate, nature, and people. Our ability to deliver against our net-zero commitment must be weighed against our program's impact on water and land resources, while also ensuring a just transition. We are working to ensure we decouple our low-carbon future from risks to environmental and societal sustainability. that of land and water.

Compensation and neutralization

dsm-firmenich will prioritize emission reductions within our value chain to deliver net zero before engaging in activities to compensate or neutralize any remaining emissions. Our external position statement details our position and is summarized below.

The role of carbon credits and the voluntary carbon market

While there are ongoing external debates about the extent to which companies can use carbon credits (otherwise known as carbon offsets) to meet their emission reduction targets, dsm-firmenich takes a clear position on the role of carbon credits within the company.



Near-term GHG reduction targets:

- We will not use carbon credits to meet near-term targets. We are, however, closely monitoring SBTi guidance related to the use of credits to compensate for Scope 3 emissions.
- We will invest in GHG emission-reduction activities at their source i) at their source and ii) under our direct control and influence.

Long-term net-zero ambition:

- We will focus on longer-term transformational investments necessary to decrease emissions across our value chain to achieve net zero by 2045.
- We will only use permanent carbon removal solutions (which could include carbon credits) in 2045 to neutralize any residual emissions, ensuring we only select solutions that meet the highest-quality criteria and comply with social and environmental safeguards.

Outside our value chain:

- To complement our value chain efforts, based on our holistic climate and nature strategy, we finance natural ecosystem restoration projects outside our value chain. These projects can generate carbon credits whose scale and impact we will report on. We will not use the potential resulting carbon credits to deliver our near-term GHG targets. However, closer to 2045, we will evaluate what role, if any, these carbon credits could play in neutralizing residual emissions.
- We recognize that the voluntary carbon market can provide additional financial flows to priority projects aiming to restore and protect climate and nature. We are therefore also exploring other high-impact contributions outside our value chain to accelerate the global net-zero transition. In this regard, we are monitoring evolving standards, such as the SBTi's Beyond Value Chain Mitigation (BVCM) guidance, on how to incorporate claims into our annual climate reporting and overall climate and nature messaging.

Our position on carbon credits and the voluntary carbon market will be updated periodically to reflect developments in corporate climate protocols and standards.

9. Avoided emissions

As mentioned earlier in this plan, dsm-firmenich collaborates with our customers to avoid emissions in their own operations through the products and services we offer. Importantly, however, our climate agenda focuses primarily on reducing our own GHG emissions across Scope 1, 2, and 3, following the SBTi. In doing so, we also contribute to the reduction of our customers' Scope 3 emissions further down the value chain, supporting their net-zero journey.



As a key supplier in nutrition, health, and beauty, we have the opportunity to partner with customers in our different industries to help transform the value chain, with products that can help tackle the most urgent climate challenges in specific sectors. Before looking at any downstream impacts, we support our customers in meeting their emission targets by providing them with products with an improved carbon footprint. We do so by setting ambitious corporate climate targets and implementing emission-reduction roadmaps in our own operations as well as our value chains. In addition, we are giving increased attention to identifying, developing, and strengthening the products in our portfolio that can create impact through avoided emissions.

Avoided emissions are those that – while not being part of our own Scope 1, 2, or 3 inventory – can be reduced thanks to our products' unique performance. To realize avoided emissions, we are driven by global challenges as manifested in the business context in the specific sectors we serve and by how our products can best help address these challenges in market applications. When sufficient reliable data is available, we use life-cycle assessment (LCA) studies to quantify and substantiate the benefits of avoided emissions enabled by our products.

In Animal Nutrition & Health (ANH), for example, our feed enzyme solutions Ronozyme® HiPhos and Ronozyme®WX in representative pig diets in Spain reduced the carbon footprint of pig production by up to 7%. If these products were applied to all Spanish pork production, approximately 1,200 kt CO₂e emissions could be avoided³.

In P&B, our innovative waterless formulations for scalp and hair care provide the same level of performance that consumers expect from liquid formats, while significantly reducing their environmental impact. Compared to a standard liquid shampoo, and considering that the use and manufacturing stages are equivalent, a powder shampoo with dsm-firmenich ingredients minimizes packaging and requires the transportation of 91% less water, thereby saving 42% of GHG emissions along the supply chain³.

TTH is improving both the efficiency of the brewery process and its eco-footprint by using enzymes to replace traditional treatments during beer production. Our Brewers Clarex® is an enzymatic solution that prevents chill haze formation while maintaining the quality of beer. In 2023, this innovation helped our customers to reduce their GHG emissions by approximately 120 kt CO₂e, without any impact on the desired properties of the end-product³.

³ See Avoided emissions in the [Integrated Annual Report](#) for more information



10. Accounting and verification

We report fully on our entire Scope 1, 2, and 3 inventory and our progress toward our targets in our Integrated Annual Report. A third-party auditor verified our emissions data for 2023. The assurance report of the independent auditor is available on page 127 of the dsm-firmenich Integrated Annual Report 2023.