



Overall Assessment

Planet Tracker:
BASF is on track for a 2°C pathway alignment by 2030.

This analysis evaluates BASF’s climate transition strategy, highlighting its strengths and gaps. Between 2019 and 2023, BASF reduced its total greenhouse gas (GHG) emissions by over 14%, with Planet Tracker projections indicating a further 22% reduction by 2030. While the company appears on track to meet its 2030 goals, this assumption could be overly optimistic as some of the historical decline in BASF’s emissions may be temporary and the effect on emission of the new Verbund site in China is unaccounted for. BASF’s engagement with suppliers and customers through initiatives like the Supplier CO₂ Management Program promotes sustainability across its value chain. However, it lacks detailed reporting on emissions reductions achieved through these engagements. Similarly, the absence of a dedicated sustainability board committee within its governance structure may limit oversight on climate issues. The company has identified climate-related risks and opportunities and invested in mitigation strategies. Investments in advanced technologies, show promise but lack alignment with EU Taxonomy criteria. Enhanced disclosures on emissions abatement per project would strengthen its climate transition plans. Planet Tracker concludes that BASF is likely to align with a 2°C warming scenario by 2030, falling short of the 1.5°C target.



Climate Alignment

- In the last five years (2019 to 2023) BASF has achieved a significant reduction of over 14% in total GHG emissions. By 2030, Planet Tracker projects that BASF’s emissions will decrease by another 22%.
- While BASF appears to be on track to meet its 2030 targets, some of its historic decline in emissions could be temporary and the new Verbund site in China could also increase its emissions significantly.



Policy and Governance

- BASF engages with stakeholders to promote sustainable practices throughout its value chain but lacks detailed reporting on emissions reductions achieved through these engagements. Also, the absence of a dedicated sustainability committee may limit the company’s oversight and management of climate issues.
- BASF’s executive compensation includes sustainability factors, particularly long-term incentives linked to emissions reduction targets, still, the impact of these factors is uncertain when caps are reached due to other financial targets.



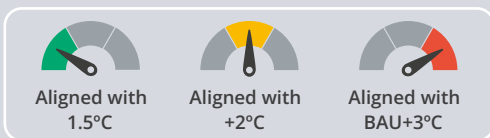
Risk Analysis

- The company has identified climate-related risks and opportunities, quantifying potential financial impacts and investing in mitigation and opportunity taking strategies.
- Still, more details on the financial impact of climate events outside BASF’s German operations and specific data on emissions abatement from energy efficiency and renewable inputs projects are needed.



Strategy Assessment

- BASF is investing in advanced technologies and new facilities, aiming to reduce emissions mainly via improved operational efficiency. However, some of these new facilities might not be as sustainable as initially the company presents them to be, especially given the company’s delayed investment in electrification.
- BASF should enhance disclosures on how its investments contribute to sustainability goals by disclosing expected emissions mitigated per project financed to prove the company’s alignment with a 1.5°C pathway by 2030.



This report is one of a series examining the climate transition plans of companies in the Climate Action 100+ list. This project is separate to and not affiliated with Climate Action 100+.

Download the [Shareholder Engagement Sheet](#).

Company Overview

BASF (BAS), established in Germany in 1865, is the world's largest chemical company by revenue. In 2023, it reported sales of EUR 68.9 billion, averaging approximately EUR 70.7 billion over the past five years (2019 to 2023). The company's products cover the entire chemical spectrum, from commodity to specialty chemicals.

Between 2019 and 2023, BASF achieved an average annual gross profit of EUR 17.8 billion, corresponding to a gross margin of 25.2%.

The company operates through six main business segments. Surface Technologies¹ leads with 25% of total revenue over the past five years, followed by Materials² with 20% and Chemicals³ with 16%. Agricultural Solutions⁴ and Industrial Solutions⁵ each account for 12%, while Nutrition and Care⁶ represents 9% of revenue, as shown in **Figure 1**.

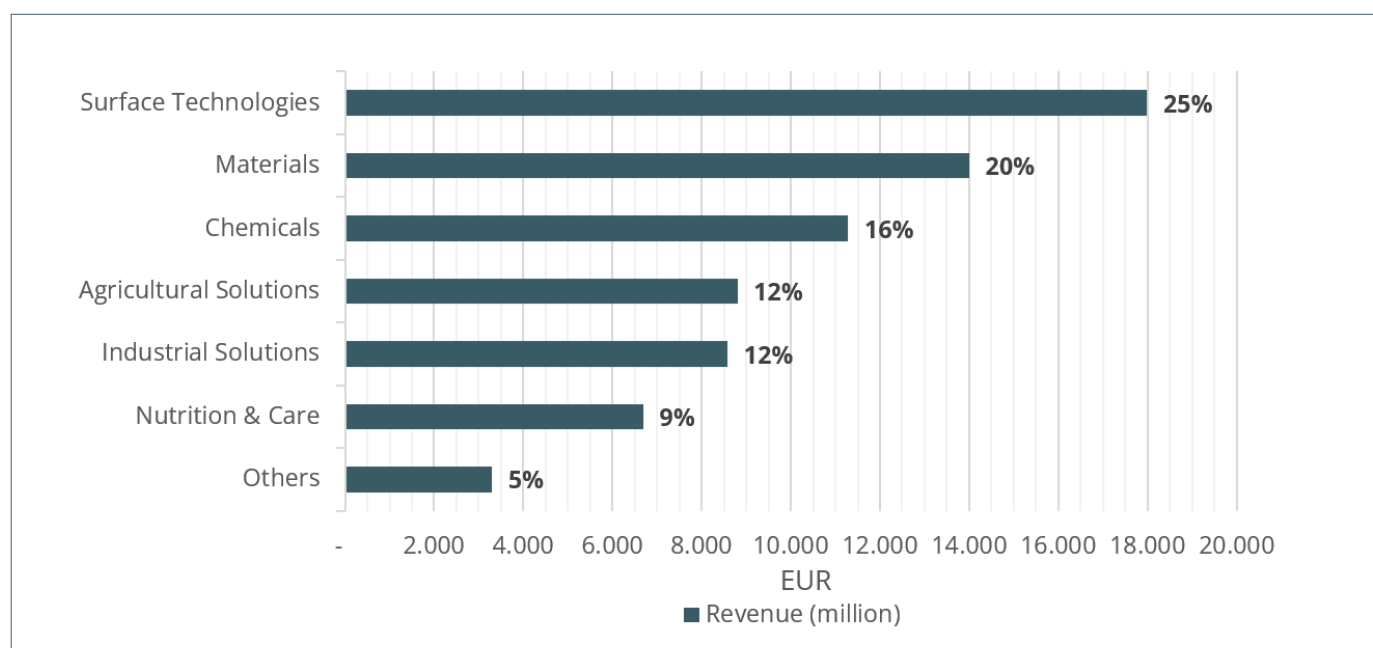


Figure 1: Revenue (%) - Breakdown by Business Segments (5Y Avg.).

Source: BASF Annual Reports 2019-2023.

1 The Surface Technologies segment provides chemical solutions for surfaces and automotive OEM coatings, as well as battery materials and catalysts.

2 The Materials segment produces advanced materials and their precursors for the plastics and plastics processing industries.

3 The Chemicals segment supplies BASF's other segments and customers with basic chemicals and intermediates.

4 The Agricultural Solutions segment is an integrated solutions provider of seeds, crop protection products and digital solutions for the agricultural sector.

5 The Industrial Solutions segment develops and markets ingredients and additives for industrial applications.

6 The Nutrition & Care segment produces ingredients and solutions for consumer applications such as human and animal nutrition, cleaning agents and personal care.

According to the company’s representatives, BASF differentiates between core businesses that are integrated along value chains⁷ and standalone businesses that serve specific industries⁸. In September 2024, the company announced a strategic shift where it will continue to invest in its standalone businesses and pursue portfolio options with added value. For example, its Coatings division will explore general strategic options for value creation while divesting from the decorative paints segment in Brazil. The company is also preparing an Initial Public Offering (IPO) for its Agricultural Solutions segment with the potential listing of a minority share⁹.

Geographically, BASF has a global presence, with 41% of its revenue over the past five years originating from Europe, 28% from North America, and 25% from the Asia Pacific region. The top three countries contributing to sales are the United States with 24% of total revenue, Germany with 16%, and China with 13%, as shown in **Figure 2**.

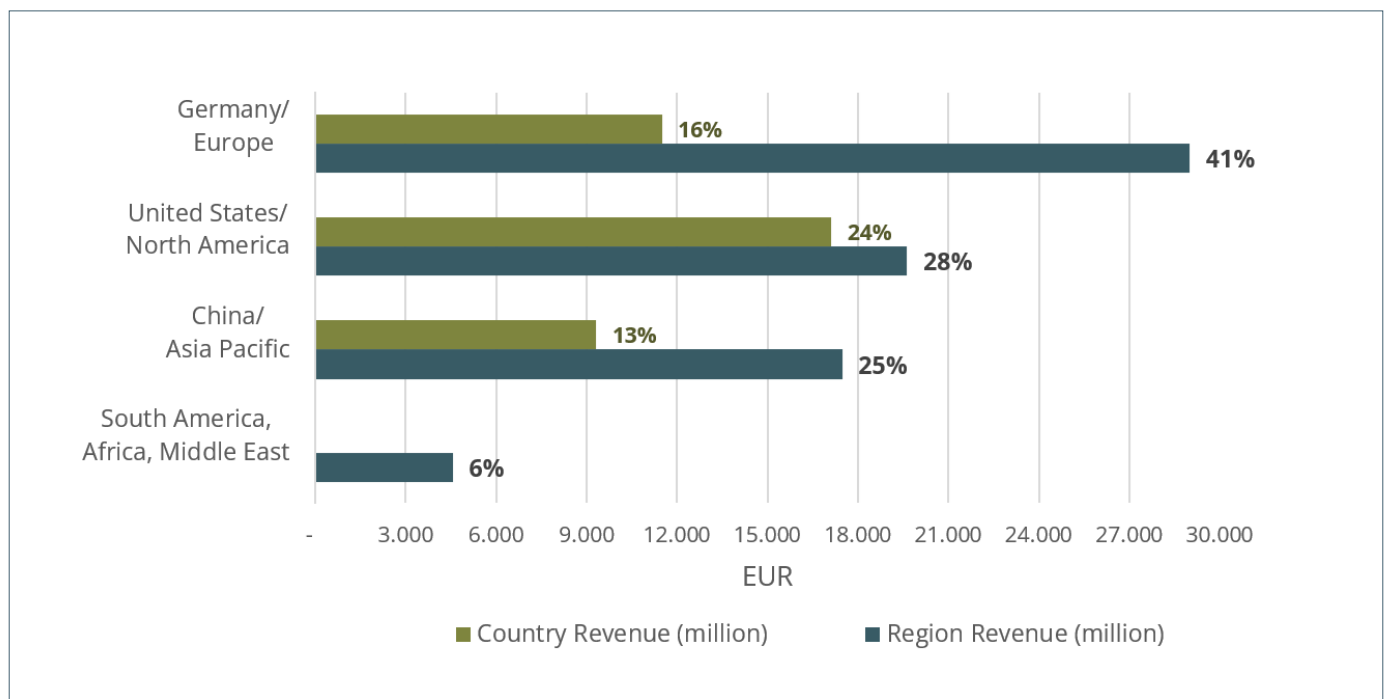


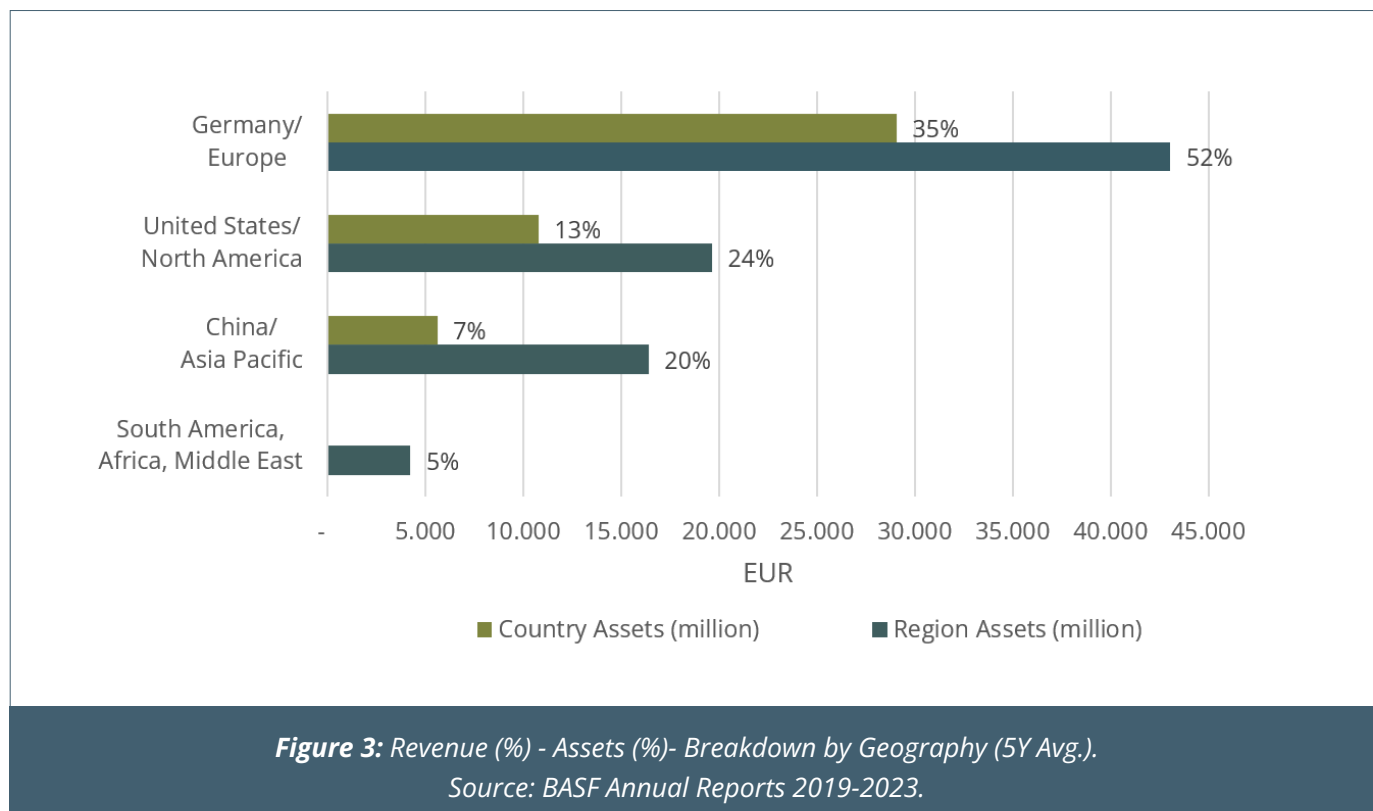
Figure 2: Revenue (%) - Breakdown by Geography (5Y Avg.). Source: BASF Annual Reports 2019-2023.

7 I.e., Chemicals, Materials, Industrial Solutions and Nutrition & Care segments.

8 I.e., Environmental Catalyst and Metal Solutions, Battery Materials, Coatings, and Agricultural Solutions segments.

9 For more details see: [“BASF sets new direction with corporate strategy and maintains high level of shareholder distributions”](#).

In terms of asset location, Europe accounts for 52% of the company’s asset value, followed by North America at 24% and Asia Pacific at 20%, as illustrated in **Figure 3**. At the country level, Germany holds the largest portion of assets with 35% of the total, followed by the United States with 13% and China with 7%.



Moreover, BASF currently operates six Verbund¹⁰ sites worldwide: two in Europe, two in North America, and two in Asia, as shown in **Figure 4**. The company is also constructing a seventh [Verbund site in Zhanjiang](#), Guangdong province, China. The Verbund site in Ludwigshafen, Germany, is the world’s largest chemical complex owned by a single company. According to BASF, these six Verbund sites produce more than 50% of its total sales volumes. Consequently, these sites significantly impact the company’s emissions. A 2023 CDP report indicates that the Ludwigshafen site accounted for 32.4% of operating emissions in 2022, followed by the Antwerp site in Belgium with 16.7%. Key sites in the United States contributed 9.5% of operating emissions, with Geismar in Louisiana producing 5% and Freeport in Texas releasing 4.5%. Lastly, the Kuantan site in Malaysia was responsible for 2.5% of operating emissions in 2022.

¹⁰ Verbund is defined as the physical integration of production plants, energy flows and infrastructure in a megastructure that creates efficient production value chains that extend from basic chemicals all the way to industrial and final consumer products.



Figure 4: BASF Verbund Sites. Source: Verbund Description

In summary, BASF's global operations in developed markets such as North America and Europe, and developing regions like Asia Pacific, suggest that its climate transition risks and opportunities, along with regulatory impacts, are concentrated in these areas. Additionally, due to the significant influence of the Verbund sites, the company is highly dependent on climate transition developments in Germany, the United States and China.

Climate Alignment

EMISSIONS INVENTORY

Between 2019 to 2023, BASF reported an average annual greenhouse gas (GHG) emissions figure of 112,564 kilotons of CO₂ equivalent (KTCO₂e), peaking at 122,528 KTCO₂e in 2021 and reaching a low of 103,286 KTCO₂e in 2023. Moreover, in 2023, operational activities accounted for 17.3% of total GHG emissions, with Scope 1 and Scope 2 (market-based) emissions contributing 15.1% and 2.2%, respectively. The majority of emissions originated from the company's value chain, with upstream Scope 3 activities¹¹ contributing 52.6% and downstream Scope 3 activities¹² accounting for 30.2%. Key contributors within the Scope 3 category included upstream "Purchased Goods" emissions at 45.9% of total emissions and downstream "Disposal" (i.e. end-of-life sold products) emissions accounting for 23.3%, as presented in **Figure 5**.

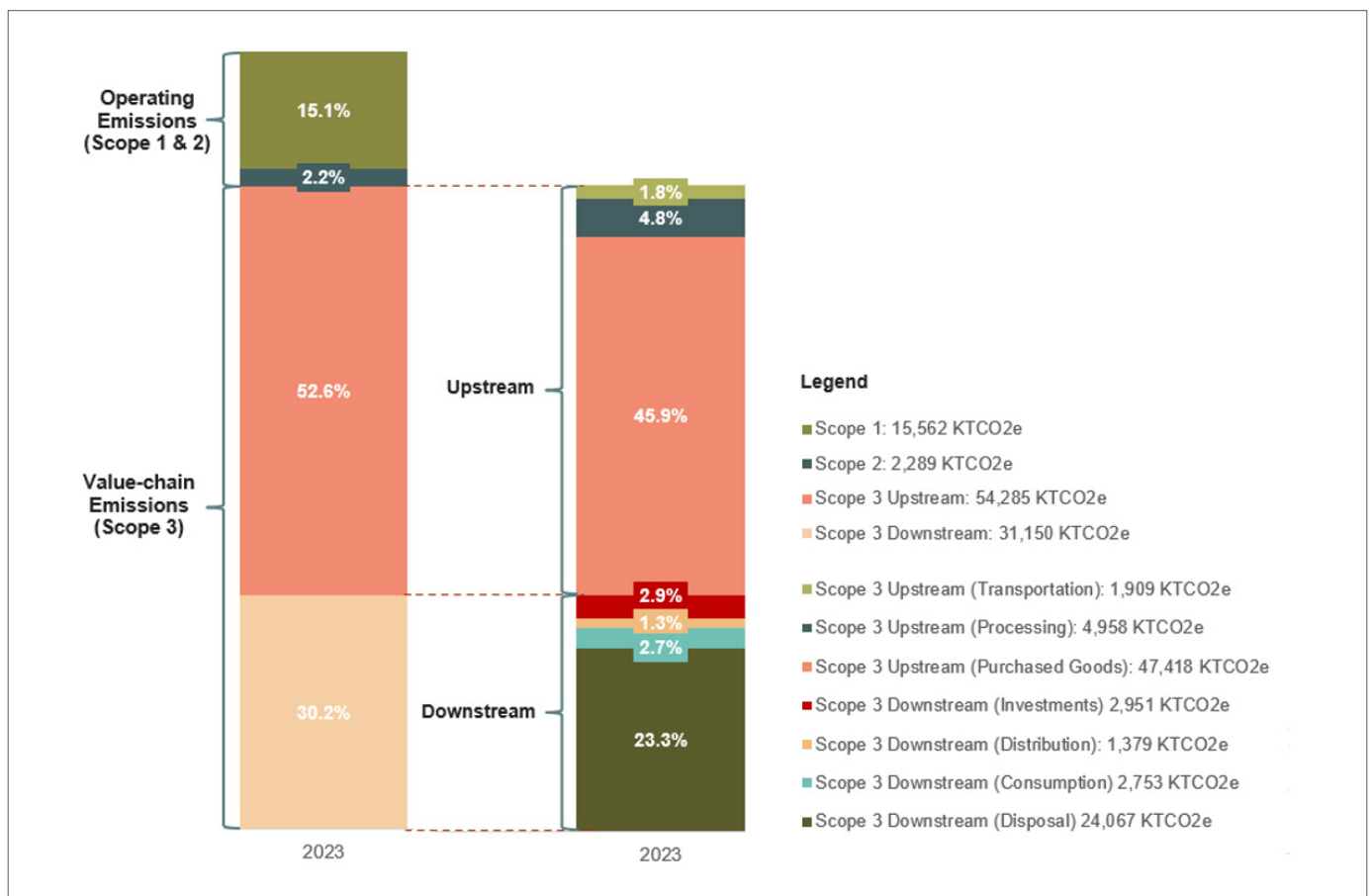


Figure 5: Full Value Chain GHG Emissions (2023) - Percentage Breakdown by Scope.

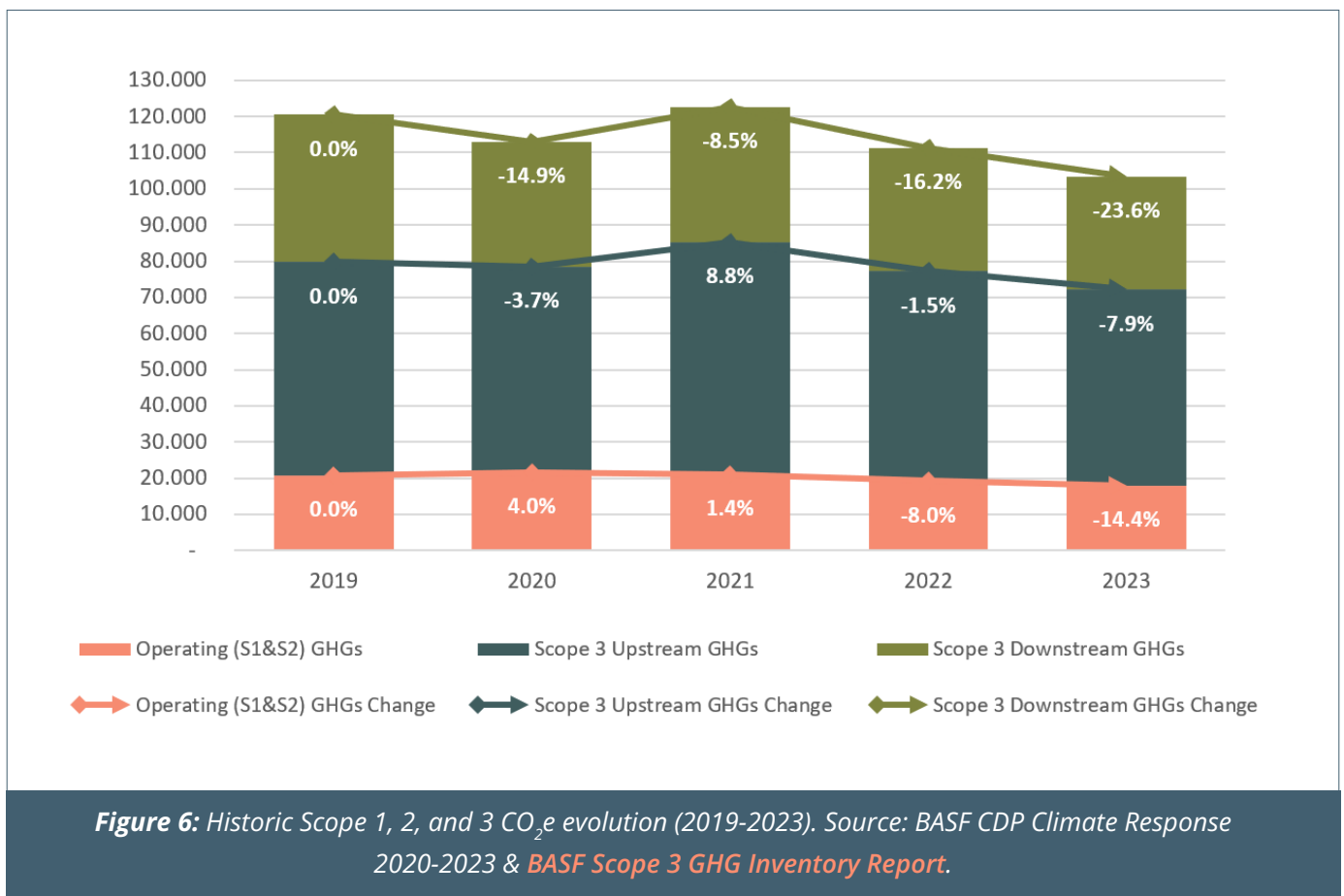
Source: *BASF Scope 3 GHG Inventory Report*.

11 Scope 3 upstream emissions include: (1) Purchased Goods – accounting for the emissions of procured raw materials and precursor manufacturing at BASF’s suppliers’ facilities (including merchandise); (2) Processing – including the emissions from “Capital Goods”, “Upstream Leased Assets”, “Fuel and Energy Activities” not covered in Scope 1 and 2, and the emissions from “Waste from Operations”; (3) Transportation – covering emissions from “Transport & Distribution” and “Employee commuting”.

12 Scope 3 downstream emissions include: (1) Investments – covering emissions from equity-accounted joint ventures and equity-accounted associated companies that are not included in BASF’s Scope 1 or Scope 2 emissions and other emissions from downstream “Leased Assets”; (2) Distribution – accounting for downstream “Transportation and Distribution” emissions and “Business Travel” emissions; (3) Consumption – covering emissions from the “Use of sold products” which stands for emissions related to the use of BASF products, i.e., including the GHGs and products that contain or form GHGs that are emitted during use; (4) Disposal – covering the emissions from the “End of life treatment of sold products”, i.e., GHG emissions from the disposal of all BASF products (except products that are already disposed of during their use phase), presuming that all BASF products at the end of their lives are either disposed of by landfilling/incineration or recycled, in the country they were sold in.

EMISSIONS TRENDS AND TARGETS

Over the last five years (2019-2023), BASF achieved a reduction of over 14% in total GHG emissions. This decrease was primarily driven by a 6.5% annual average reduction in downstream Scope 3 emissions¹³, a 3.8% annual average decrease in Scope 1 and 2 emissions, and a 2% annual average reduction in upstream Scope 3 emissions. The absolute reductions for the operating, upstream, and downstream emissions are outlined in **Figure 6**.



To forecast BASF’s emissions up to 2030, we used a high-level extrapolation model that projects the annual emissions change rate from the past four years forward. This projection assumes that the company will continue its historical mitigation efforts from the last five years (2019–2023) and will experience an intrinsic annual revenue growth rate of 3.8%¹⁴. Therefore, examining the company’s engagement and investments in the following sections becomes crucial to determine whether it will deviate from or maintain its historical pattern.

13 This reduction could be in part due to emissions accounting methodology changes as for the 2019 calculation of these CO₂ equivalent emissions GWP values from the 5th Assessment Report, IPCC, 2013, were used, while for the 2022 (and presumably onwards) emissions calculation GWP values from the 6th Assessment Report, IPCC, 2021, were employed. For more details see link.

14 This is the 2019-2023 revenue growth rate which also accounts for the COVID-19 pandemic’s transient economic impact, reflecting both the downturn and subsequent recovery.

According to Planet Tracker’s extrapolation, by 2030, the company’s Scope 1 emissions are expected to decrease by 17%, Scope 2 emissions by 53%, upstream Scope 3 emissions by 13%, and downstream Scope 3 emissions by 38%, resulting in an absolute emissions reduction of 22%. In other words, the company’s projected emissions are expected to reach 80,474 KTCO₂e by 2030, down from 103,286 KTCO₂e in 2023. In this scenario, as shown in **Figure 7**, operating emissions would account for 17.4% of the total footprint, while 58.4% would come from Scope 3 upstream activities. The remaining 24.2% would be derived from Scope 3 downstream activities.

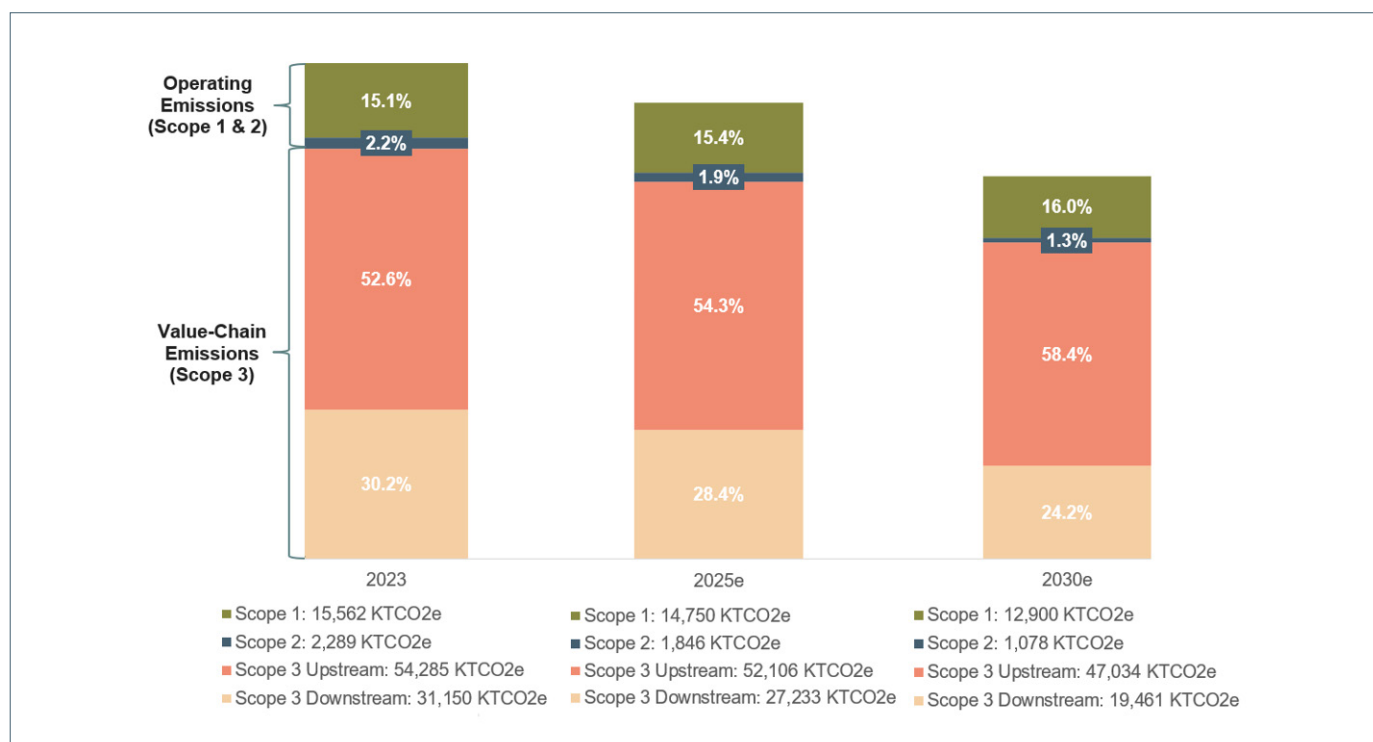


Figure 7: Value Chain GHG Emissions (2025e & 2030e) – Percentage Breakdown by Scope. Source: BASF CDP Climate Response 2020-2023, *BASF Scope 3 GHG Inventory Report* & Planet Tracker Calculations.

BASF’s latest climate transition goals aim for a 25% absolute reduction in Scope 1 and 2 GHG emissions¹⁵ by 2030 from a 2018 baseline and a 15% specific reduction in Scope 3.1 GHG emissions¹⁶ from a 2022 baseline.¹⁷ By 2050, the company aims to achieve Net Zero emissions for its production (Scope 1), energy purchases (Scope 2), and the purchase of raw materials (Scope 3.1).

To achieve these targets, BASF stated it will focus on three key actions. First, increase the use of renewable energy; second, develop emission-free and low-emission production processes by improving the energy and process efficiency of its plants (i.e., carbon abatement); and third, increase the use of renewable, recycled, and CO₂-based raw materials to close material cycles (i.e., circularity). Therefore, beyond its operating upgrades, its engagement with suppliers, as discussed in the next section, becomes a key element in reducing its overall emissions.

¹⁵ Scope 1 and Scope 2 (excluding the sale of energy to third parties).

¹⁶ Scope 3.1, i.e., raw materials excluding battery materials, services and technical goods, and excluding emissions from BASF trading business. According to BASF, future adjustment of the baseline might happen based on the Tfs guideline depending on the availability of further (improved) primary data.

¹⁷ The stated goal is an extrapolated intensity target, as it corresponds to a reduction from 1.57 to 1.34 Kilograms of CO₂e per kilogram of raw material bought; calculated on the basis of relevant Scope 3.1 emissions of 48,000 KTCO₂e.

Furthermore, **BASF is planning a significant restructuring**¹⁸ that could impact the future trend of its emissions. In the next few years, the company may exit from its coatings, and environmental catalysts businesses and list a minority share of its agrochemicals business. According to company representatives, the strategy is intended to unlock the financial value of the standalone businesses while enabling BASF to strengthen and profitably grow its core businesses. The company states that its ambition is to be the preferred chemical company to enable its customers' green transformation. When questioned whether BASF could increase profits with its sustainable product approach, the company's new CEO, Markus Kamieth,¹⁹ response was that BASF's progress in making such products would be in line with market demand. He acknowledged that getting premium prices for green products is still "hit and miss"²⁰.

Notably, the company did not disclose the impact of these changes on emissions²¹. As it stands, based on BASF historical trend of emissions and its targets, the company seems well positioned to achieve its operating emissions mitigation goals, as illustrated in **Figure 8**.

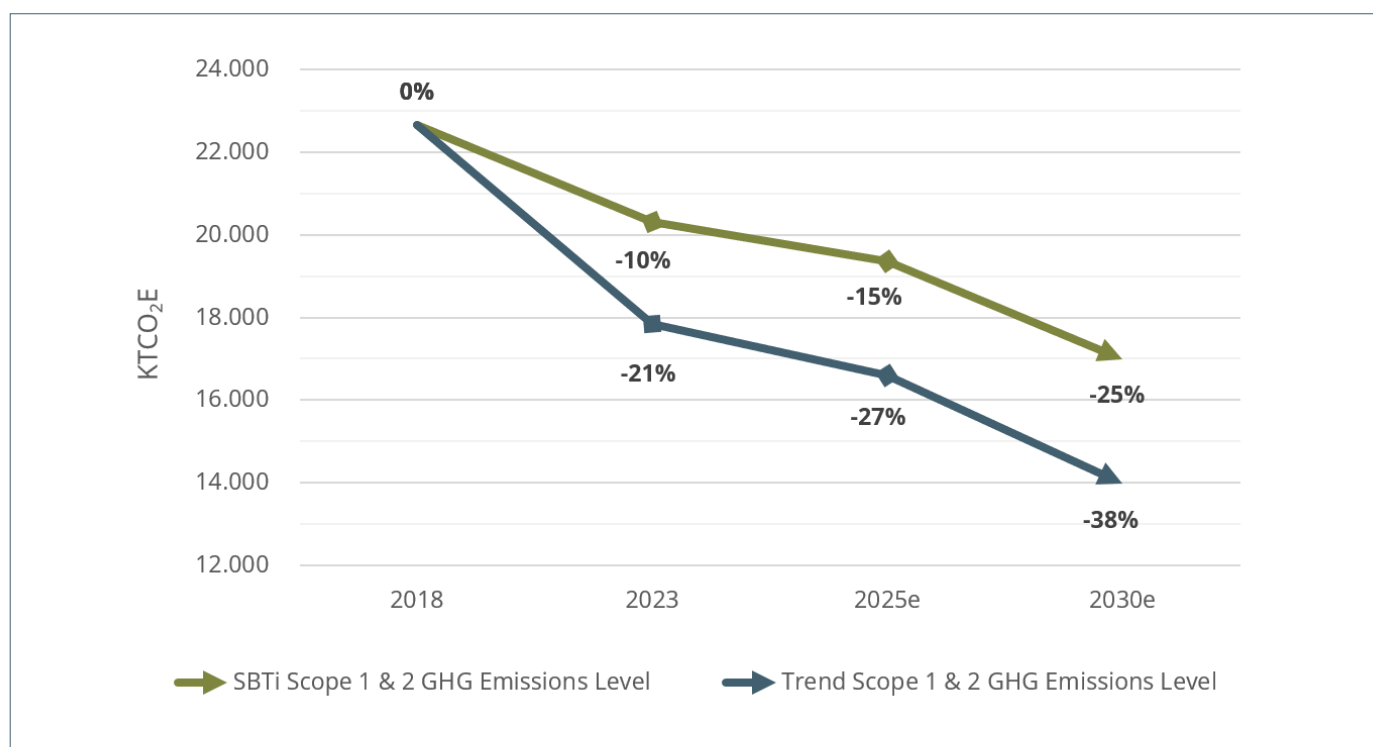


Figure 8: Future Operating GHG Emissions – SBTs Recommended vs Extrapolated Trends. Source: Source: BASF CDP Climate Response 2020-2023, *BASF Scope 3 GHG Inventory Report* & Planet Tracker Calculations.

18 For more details see "BASF Capital Markets Day" and "BASF readies a massive restructuring".

19 Markus Kamieth became BASF's CEO in April 2024.

20 As disclosed by the Chemical & Engineering News magazine.

21 Nor on related investments (i.e., capital expenditure) in these segments as you will see in next sections.

Please note that some of the historical decline in BASF's emissions over the past couple of years has been due to the weak economy, which led to lower production volumes, as explained by the company. This is likely to be temporary; and therefore, the calculated trend might be overly optimistic. Moreover, BASF's new Verbund site in China could significantly increase its Scope 1 and 2 emissions, as it will operate using conventional fossil feedstocks.

Regarding its Scope 3.1, BASF appears to be on track to achieve its targets as well, although by a narrower margin than its operating emissions, as shown in **Figure 9**.

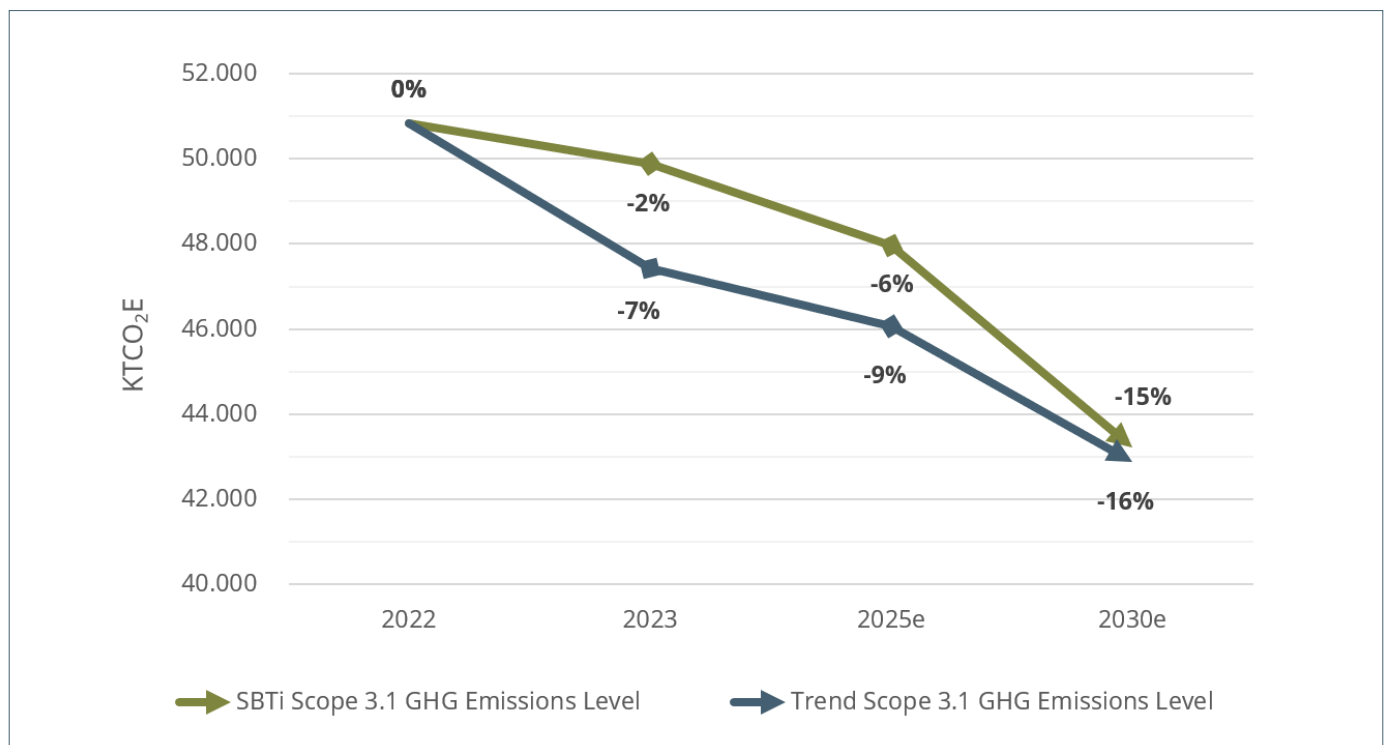


Figure 9: Future Scope 3.1 GHG Emissions – SBTs Recommended vs Extrapolated Trends. Source: Source: BASF CDP Climate Response 2020-2023, **BASF Scope 3 GHG Inventory Report** & Planet Tracker Calculations.

In conclusion, the company's historical trajectory indicates a potential alignment with a 1.5°C pathway by 2030. Still, to fully assess BASF's likelihood of reaching Paris-aligned climate objectives, further analysis of the company's policy, governance, risk management, and strategic alignment is needed. In other words, the company must implement its climate transition strategy to ensure that its historical emissions reduction trends persist in the future.

Furthermore, achieving its Net Zero target by 2050 represents a significantly greater challenge, as it would require a fundamental transformation of the chemical industry, especially given the sector's heavy reliance on fossil fuel feedstock. Unfortunately, the company does not disclose any specific steps for its approach after 2030.

Policy and Governance

ENGAGEMENT AND INFLUENCE

Suppliers' Engagement

BASF acknowledges that a significant portion of its GHG emissions (82.7%) originates from Scope 3 activities, with 52.6% of its total footprint coming from upstream in 2023. To address these GHGs, the company highlights the importance of engaging with suppliers.

Moreover, while BASF reports a global procurement spend of EUR 41 billion, around 90% of procurement was done locally²². Therefore, the company should be well-positioned to improve the sustainability of its supply chain via locally targeted engagement. Accordingly, BASF aims to have sustainability evaluations cover 90% of its relevant spend by 2025²³.

Analysing BASF's engagement with suppliers, we were able to identify three main areas of action:

Compliance Measures

- **Supplier Code of Conduct:** BASF requires suppliers to adhere to a code of conduct founded on international guidelines like the UN Global Compact and ILO conventions, covering human rights, labour standards, anti-corruption, and environmental protection²⁴.
- **Updates for Regulatory Compliance:** The Supplier Code of Conduct was expanded to include the [German Supply Chain Due Diligence Act \(GSCA\)](#) requirements. In 2023, approximately 5,000 new BASF suppliers committed to this updated code, according to the company.
- **Monitoring and Enforcement:** BASF conducts audits and assessments to ensure compliance, with the right to discontinue business with non-compliant providers. In 2023, business relationships were terminated with three suppliers due to human rights violations. To date, no relationships were terminated due to environmental harms.

Emissions Reductions Initiatives

- **Supplier CO₂ Management Program:** Launched in 2021, this two-step program aims to increase transparency and reduce the carbon footprint of BASF's value chain in collaboration with suppliers. Since launch, BASF requested Product Carbon Footprints (PCFs) from over 1,600 suppliers²⁵ and supported them in calculating these footprints, resulting in over 800 validated PCFs by 2023. Now, BASF plans to work with suppliers on solutions to reduce product-related emissions by forming expert teams within its procurement organisation. By integrating PCFs as a critical criterion in its purchasing guidelines this program aims to reduce upstream Scope 3 emissions by embedding their reduction directly into procurement practices.

²² "Locally" means that a supplier is located in the same region (according to BASF's definition) as the procuring company.

²³ As of 2023, the company has already achieved a 89% coverage.

²⁴ For more details see BASF's [Supplier Code of Conduct](#).

²⁵ According to BASF these suppliers cover about 70% of its raw materials-related GHG emissions.

- **Together for Sustainability (TfS)²⁶:** As a founding member of TfS, BASF participates in standardising sustainability assessments and audits. At the end of 2023, TfS had 50 members with a combined procurement spend of around EUR 500 billion. Hence, BASF represents approximately 8% of the TfS combined procurement spend, proving its considerable influence in the organisation. Moreover, in 2023, TfS conducted 492 audits and 11,421 online assessments overall, and BASF itself was ranked among the top 1% of global companies in sustainable procurement.
- **Standardisation and Digitalisation of Scope 3:** BASF is working with TfS to standardise methods for calculating scope 3 GHG emissions and developing a digital platform for exchanging PCF data.

Supplier Development

- **Training Programs:** In 2023, BASF trained 102 employees from 88 Chinese suppliers in sustainability practices. Additionally, TfS webinars on sustainability topics had over 2,100 participants during the same year.
- **TfS Academy:** Launched to provide online learning resources, the academy offers over 390 courses in 11 languages, targeting both buyers and suppliers to enhance ESG knowledge.

Reflecting upon these initiatives, while BASF demonstrates a structured approach to engaging suppliers on sustainability, several key gaps affect the assessment of its engagement impact. For example, initiatives such as the Supplier CO₂ Management Program and participation in TfS, are only indirectly linked to emissions reductions through improved transparency and standardisation. BASF does not disclose specific data on emissions reductions achieved through supplier engagement, and the disclosures lack key details on how supplier engagement will lead to measurable emissions reductions. To fully substantiate the impact of its engagement, particularly regarding upstream Scope 3 emissions, BASF needs to:

- Establish and disclose measurable targets for reducing Scope 3 emissions through supplier engagement.
- Provide detailed reporting on emissions reductions achieved annually due to supplier initiatives and improvements.
- Directly link supplier engagement and initiatives to quantified GHG emissions reductions.

By addressing these areas, BASF would enhance its transparency and demonstrate a tangible commitment to reducing its overall GHG emissions, strengthening the credibility of its climate transition strategy.

²⁶ Please note that TfS is an industry-level initiative driven by chemical procurement specialists. Each TfS member intends to help build sustainable chemical supply chains and regulatory requirements to respond to the needs and expectations of society. However, TfS is a partner to CEFIC (the European Chemical Industry Council), VCI (the German Chemistry Council), and CPCIF (the China Petroleum and Chemistry Industry Federation), all of which have mixed or contrary messaging when it comes to climate change policy - see Annex I.

Customers' Engagement

BASF reported that 30.2% of its GHG emissions in 2023 came from downstream Scope 3 activities. To address these emissions, the company engages with customers through initiatives focused on product adaptations, low-carbon products, and circular solutions, all aimed at reducing emissions throughout the product lifecycle.

Initiatives to Reduce Downstream Emissions

- **Product Adaptations:** BASF has modified its products to reduce emissions during their use phase. An example highlighted by the company is the elimination of the majority of climate-damaging blowing agents in polyurethane foams, directly reducing emissions in the downstream value chain. However, specific numbers on emissions mitigated by this change are not disclosed.
- **Low-Carbon Products:** In 2023, BASF expanded its portfolio of products with certified reduced carbon footprints, including engineering plastics. Moreover, the company offers several products with a Net Zero carbon footprint²⁷. According to BASF these products help customers lower emissions in their own applications.
- **Circular Solutions** to reduce the product footprint include the use of:
 - Renewable Energy – Using electricity from renewable sources instead of fossil fuels in production processes
 - Alternative Raw Materials – Incorporating renewable, waste-based, or recycled raw materials like castor oil, biomethane, or pyrolysis oil from plastic waste.
 - Mass Balance Approach – Allocating alternative resources to end products using a certified mass balance method, verified by independent third parties.

Enablers of Downstream Emissions Reduction

BASF employs various frameworks and tools to support the initiatives mentioned above and consequently engage customers in emissions reduction:

- **Product Carbon Footprints (PCFs):** In 2020, BASF developed a digital solution to calculate the PCFs of approximately 45,000 sales products, covering emissions from raw material extraction to the product leaving the factory gates (cradle-to-gate). By providing PCFs, BASF expects to enable customers to understand the carbon footprint of the products they purchase, facilitating informed decisions to reduce their own emissions.

²⁷ Examples include: Neopentyl Glycol, Propionic Acid, MDI, Lupranat®, Kaurit®, and acResin®.

- **TripleS Assessment Tool:** BASF uses the TripleS (i.e., the Sustainable Solution Steering) framework to categorise its product portfolio into five segments based on sustainability performance: Pioneer²⁸ (24.1% of total sales in 2023²⁹), Contributor³⁰ (17.3%), Standard³¹ (43.6%), Monitored³² (8%), and Challenged³³ (2.2%). According to the company, this helps BASF steer its product development and portfolio toward more sustainable solutions, benefiting customers that seek products with positive sustainability contributions. Moreover, BASF aims for over 50% of sales relevant to TripleS to come from Sustainable-Future Solutions by 2030. In 2023 this ratio stands at approximately 41%.
- **Participation in Networks and Partnerships:** Through involvement in organisations like the Ellen MacArthur Foundation and the Global Battery Alliance, BASF aims to collaborate with customers and other stakeholders to develop standards and innovative solutions for the circular economy.

In summary, by providing PCF data, offering low-carbon products, and developing circular solutions, BASF is well positioned to enable customers to make more sustainable choices and reduce their own emissions.

Still, the credibility of BASF's climate transition could be enhanced by providing specific, quantifiable data on the emissions reductions achieved through these initiatives. Key data points, such as the total emissions reduced due to customer adoption of low-carbon products or the impact of circular solutions on overall emissions, are not disclosed. By setting clear emissions reduction targets related to customer engagement and reporting on progress, BASF would strengthen the link between its actions and their impact on downstream emissions, strengthening its alignment with the latest Paris Agreement targets.

28 "Pioneer" products are defined by BASF as products with adequate profitability and a positive contribution to sustainability above the market standard.

29 The allocations by segment and sales are provisional pending a reassessment that will be completed in 2024.

30 "Contributor" products are defined by BASF as products with adequate profitability and a positive contribution to sustainability on market standard with regard to the topics of climate change and energy, resource efficiency and circular economy.

31 "Standard" products are defined by BASF as products performing on market standard without a dedicated contribution to the topics of climate change and energy, resource efficiency and circular economy.

32 "Monitored" products are defined by BASF as products with specific identified regulatory or customer concerns arising mid-term (2-5 years) or posing a regional reputational risk for BASF.

33 "Challenged" products are defined by BASF as Products with identified strong regulatory or customer concerns arising short-term (≤2 years), with Substances of Very High Concern in applications with an intended consumer use, violating BASF's Code of Conduct or posing a strong global reputational risk.

Influence on Policymakers

BASF actively engages in climate policy discussions globally, leveraging its position as a leading chemical company. Publicly, BASF expresses support for climate action, as evidenced by its endorsement of the EU's target for climate neutrality by 2050 in its 2023 CDP Climate Change Disclosure and support for the UN Paris Agreement goals in its 2023 Annual Report³⁴.

However, BASF has also voiced concerns regarding specific climate regulations that it believes may impact the competitiveness of the European chemical industry. In its 2022 Annual Report, published in February 2023, the then CEO Martin Brudermüller criticised what he described as a “flood of regulation” associated with the EU Green Deal, advocating for a “reset” of priorities³⁵. In February 2024, the CEO also signed the [Antwerp Declaration](#), which calls for revising existing legislation under the EU Green Deal and avoiding overly detailed regulations. This suggests a preference for a more flexible, industry-driven approach to climate policy.

Regarding the EU Emissions Trading System (EU ETS) and the Carbon Border Adjustment Mechanism (CBAM), BASF has advocated for maintaining provisions that it views as critical for industry competitiveness. In its 2022 CDP Climate Change Disclosure, the company supported the continuation of free allocation of emissions allowances and indirect cost compensation.

BASF's positioning on the energy transition includes advocating for decarbonisation and increased use of renewable energy. In a June 2023 meeting with the EU Commission, the company supported electrification using renewable sources. CEO Martin Brudermüller also endorsed the removal of fossil fuel subsidies in a joint letter at the [World Economic Forum in October 2023](#).

In terms of industry association governance, BASF disclosed its memberships in industry associations in a [December 2023 review](#), outlining the associations' positions on climate policy and a framework for reviewing alignment, but it did not identify any misalignments. However, company executives hold leadership roles in associations such as the German Chemical Industry Association (VCI), the Federation of German Industries (BDI), and the European Chemical Industry Council (Cefic), which according to InfluenceMap have taken positions on EU climate policies that do not fully align with ambitious climate action³⁶.

Overall, BASF's influence on climate policy reveals a nuanced approach. While the company publicly commits to climate action and supports high-level goals, its policy engagements suggest a preference for regulatory approaches that balance environmental objectives with industry competitiveness and operational flexibility. Greater transparency about its lobbying activities and detailed explanations of its trade associations' mixed positions would facilitate a clearer assessment of BASF's influence on climate-related policy.

³⁴ For more details see, [2023 Annual Report](#), page 238.

³⁵ For more details see [2022 Annual Report](#), page 10.

³⁶ For more details see “Appendix A: BASF's Industry Association Memberships” at [Link](#)

MANAGEMENT ALIGNMENT

Sustainability Targets Oversight

A. The Board

BASF operates a two-tier management system, separating management and supervision through its Supervisory Board and Board of Executive Directors. The Supervisory Board oversees the company's management, appoints members of the Board of Executive Directors, and provides advice on key decisions, including those related to sustainability and climate strategy.

Unlike most global chemical companies, including DOW, which has less ambitious climate targets³⁷, BASF does not have a dedicated sustainability committee within its Supervisory Board. Instead, sustainability is treated as a cross-cutting issue addressed by the entire Supervisory Board during plenary sessions. The company argues that embedding sustainability expertise broadly within its governance structure ensures comprehensive oversight. Accordingly, the Supervisory Board has established four committees:

- 1. Personnel Committee:** Handles personnel matters concerning the Board of Executive Directors following German law. Prepares the resolutions made by the Supervisory Board concerning the system and amount of compensation paid to members of the Board of Executive Directors.
- 2. Audit Committee:** Oversees financial reporting and auditing processes to ensure transparency and compliance.
- 3. Nomination Committee:** Identifies and recommends suitable candidates for election to the Supervisory Board.
- 4. Strategy Committee:** Prepares strategic resolutions and topics for discussion by the entire Supervisory Board.

After each committee meeting, the chairs report detailed findings to the Supervisory Board to facilitate informed decision-making.

B. The Management

The Board of Executive Directors is responsible for managing the company and representing BASF in business dealings with third parties. Key responsibilities include:

- 1. Defining Corporate Strategy:** Defining the corporate goals and strategic direction of the BASF Group, encompassing all business areas, including the sustainability strategy.
- 2. Integrating Sustainability:** Ensuring that opportunities and risks associated with social and environmental factors are systematically identified and evaluated. This includes assessing the ecological and societal impacts of BASF's activities.
- 3. Corporate Planning:** Incorporating environmental and social objectives alongside long-term economic goals, resulting in both financial and sustainability-related targets.

³⁷ For more details see [DOW CTA](#).

The Board of Executive Directors maintains regular, prompt, and comprehensive communication with the Supervisory Board on matters related to planning, business development, risk management, and compliance. According to the company, this ongoing dialogue aims to ensure that the BASF's strategic orientation, including sustainability initiatives, is closely coordinated with the Supervisory Board.

Concluding, BASF's governance structure integrates sustainability oversight within both the Supervisory Board and the Board of Executive Directors. However, the absence of a dedicated sustainability committee at the board level is a notable gap in their climate transition plans. While BASF highlights that sustainability expertise is embedded broadly within its governance framework, the lack of a specialised committee contrasts with practices at other leading chemical companies, even those with less ambitious climate targets³⁸.

Consequently, this gap may limit the depth and focus of sustainability oversight, potentially affecting the effectiveness of BASF's climate governance. Establishing a dedicated committee could enhance accountability and provide more rigorous oversight of its sustainability issues, aligning BASF's governance practices with industry peers and strengthening the credibility of its climate transition.

Management Compensation

The compensation of BASF's executive committee is detailed in a separate Compensation Report³⁹. In addition to a fixed salary, the management receives variable compensation, which includes Short-Term Incentives (STI) and Long-Term Incentives (LTI). In this section we aim to examine whether and to what degree the management is incentivised to achieve BASF climate targets through the company's compensation program.

A. Short-Term Incentives (STI)

The STI has a performance period of one year and is based on the performance targets, which include the achievement of operational and strategic goals, as well as a set Return on Capital Employed (ROCE) superior to the cost of capital. The payout is limited to 200% of the target amount.

As mentioned, ROCE serves as a key performance indicator (or factor) for the STI, directly linking the company's operating success and its financial goals of earning a premium on the cost of capital, as described in **Figure 10**. For 2023, the target ROCE was set at 10%, with a cost of capital of 9%.

³⁸ For more details see [DOW CTA](#).

³⁹ For more details see the [Compensation Report for the financial year 2023](#).

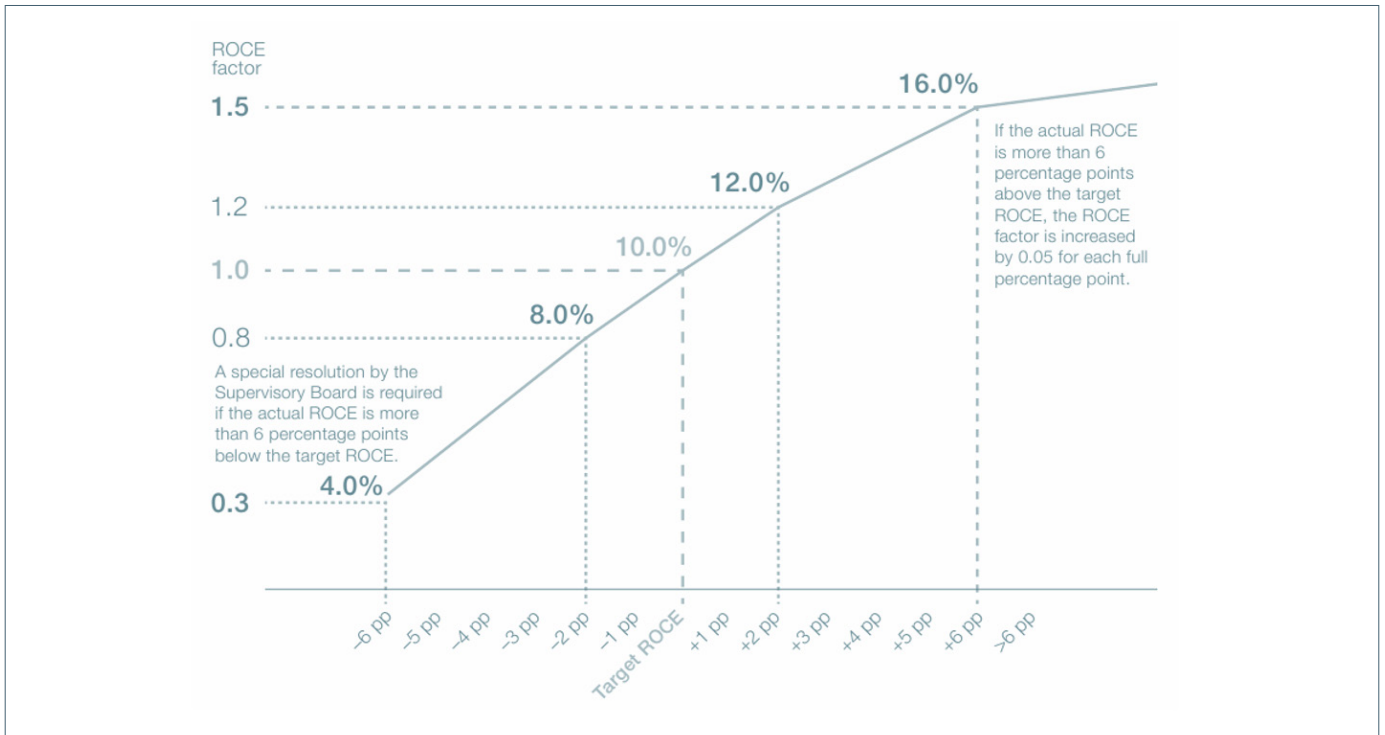


Figure 10: BASF STI - ROCE Factor. Source: *BASF SE Compensation Report 2023.*

Furthermore, the target agreement and performance assessment (i.e., the performance factor) for the STI involve both operational and strategic targets, each potentially weighted at 50%. Operational targets focus on one-year objectives such as earnings and financial metrics, including EBIT before special items. Meanwhile, strategic targets relate to the development of BASF and encompass areas such as growth, investment, R&D strategy, and sustainability. The performance factor, determined by the Supervisory Board, ranges between 0 and 1.5 based on the level of target achievement, with a 100% target achievement equating to a factor of 1.0.

The payout amount for the STI is calculated using the formula: **Payout Amount = Target STI × ROCE Factor × Performance Factor**, as shown in **Figure 11**. This payout is capped at EUR 2 million for a member of the Board of Executive Directors, with higher caps for the chair (EUR 4 million) and vice-chair (EUR 2.7 million).

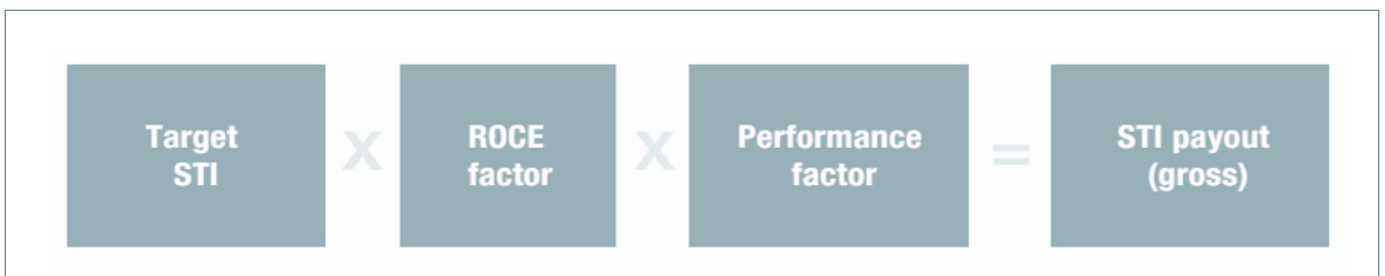


Figure 11: BASF STI - Payout Amount. Source: *BASF SE Compensation Report 2023.*

B. Long-Term Incentives (LTI)

The LTI has a performance period of four years and is based on the achievement of three strategic targets – growth, profitability, and sustainability – and the Total Shareholder Return (TSR), which includes share price appreciation and dividends. The payout is limited to 200% of the target amount.

Each year, an LTI plan is allocated by converting the target amount into a preliminary number of virtual Performance Share Units (PSUs) based on the average BASF share price. The strategic targets for the performance period 2023-2026 are:

1. **Growth Target:** Growsalesvolumesfasterthanglobalchemicalproductionannually.Targetachievement is 100% if BASF grows 0.1 percentage points faster than global chemical production. The achievement ranges from 0% if underperforming by 2 percentage points or more, to 200% if outperforming by 2 percentage points or more, with intermediate values determined by linear interpolation.
2. **Profitability Target:** Increase EBITDA before special items by 3% to 5% per year. Target achievement is 100% if EBITDA increases by 4%, which is the midpoint of the target corridor. The range spans from 0% achievement if the increase is 1% or less, to 200% achievement if the increase is 7% or more
3. **Sustainability Target:** Reduce CO₂ emissions by 25% by 2030 compared to 2018 levels. For 2023, target achievement is 100% if CO₂ emissions are within the defined annual target corridor of ±500 KTCO₂e around 19,200 KTCO₂e. The range extends from 0% achievement if emissions exceed the corridor by more than 2,000 KTCO₂e to 200% achievement if emissions are below the corridor by more than 2,000 KTCO₂e.

Target achievement rates are determined annually for each strategic target, and at the end of the four-year performance period, the arithmetic mean of these annual rates is calculated. This average adjusts the preliminary number of PSUs to determine the final number. The payout amount is then calculated using the formula: **Payout Amount = Final Number of PSUs × (Average Share Price + Cumulative Dividends over the Performance Period)**, as shown in **Figure 12**.

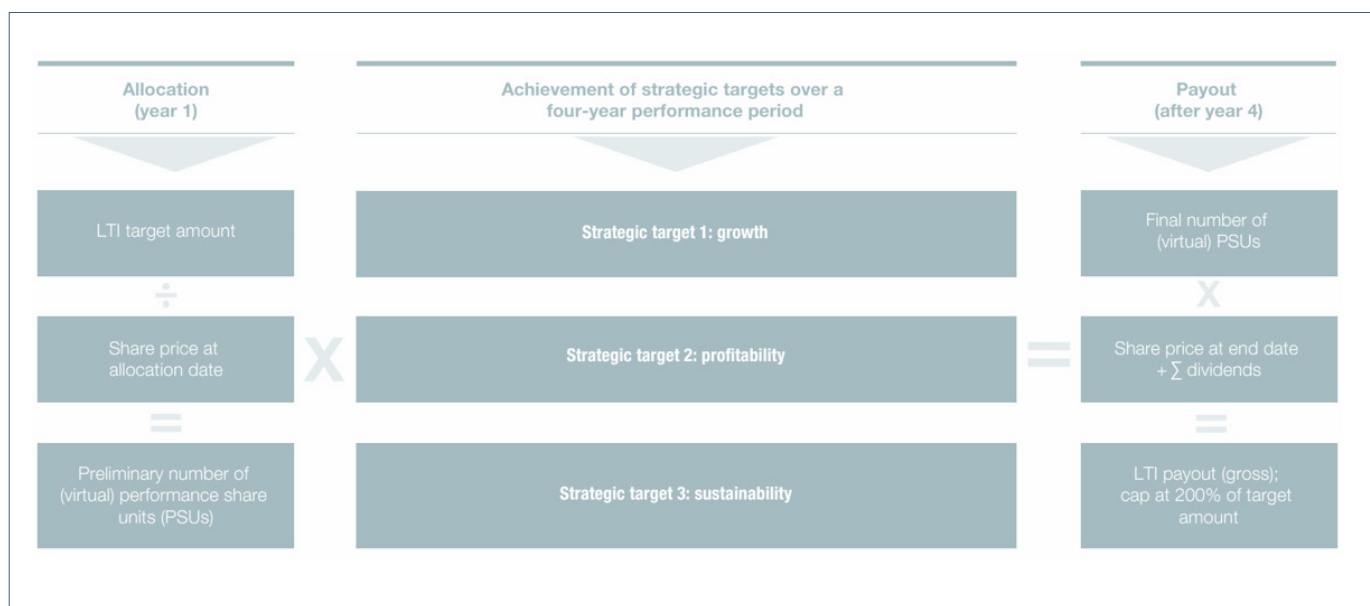


Figure 12: BASF LTI - Payout Amount. Source: BASF SE Compensation Report 2023..

In summary, BASF’s executive compensation structure incorporates sustainability considerations, particularly within the LTI plan. The LTI has a direct link to emissions reductions through Strategic Target 3, which focuses on reducing operating CO₂ emissions by 25% by 2030 compared to 2018 levels. While this target aims to motivate management to achieve significant emissions reductions over a four-year period, it is unclear to what degree this target will impact compensation given the overall payout caps.

Furthermore, the STI has even a less explicit connection to sustainability. Although the STI includes strategic targets that encompass aspects like growth, investment, R&D strategy, and sustainability, the specific impact of sustainability initiatives on the STI payout is not clearly defined. The operational targets highlight financial metrics such as ROCE and EBIT, but the weighting or influence of sustainability within the strategic targets remains unspecified.

Therefore, enhancing the clarity and potentially weighting of sustainability factors within both the STI and LTI could further align executive incentives with BASF’s climate transition plans. By providing a more transparent and significant link between sustainability performance and compensation, BASF could promote sustainable actions across both short-term and long-term scenarios, strengthening the effectiveness of its climate transition strategy.

Risk Analysis

FINANCIAL IMPACT

BASF has identified significant climate-related risks and opportunities that could impact its operations and financial performance. These are categorised into two main risk areas, namely, policy/transition risks coming from emerging carbon pricing regulations, and physical risks associated with climate change effects. At the same time, the company has identified material opportunities arising from the development of low-emission products.

External Policy Drivers⁴⁰

BASF's primary regulatory risk comes from the European Union Emissions Trading System (EU ETS). According to the company, approximately 52% of BASF's Scope 1 and Scope 2 emissions are covered by the EU ETS, requiring the purchase of emission allowances. The tightening of the EU's 2030 climate target, from a 40% to a 55% reduction in GHG emissions, will inevitably lower the overall ETS cap. This change could reduce the availability of free emission allowances and introduce mechanisms like the Carbon Border Adjustment.

BASF estimated the potential maximum financial impact from this policy risk to be EUR 313 million. This figure is based on the anticipated decrease of 1 to 2.5 million free allowances and projected carbon prices ranging from EUR 65 to EUR 125 per certificate. Accordingly, the company's calculations for additional costs are as follows:

- Minimum Impact: 1 million fewer allowances × EUR 65 per certificate = EUR 65 million.
- Maximum Impact: 2.5 million fewer allowances × EUR 125 per certificate = EUR 313 million.

For a more comprehensive view of the company's exposure beyond GHG emission quotas⁴¹, Planet Tracker calculated the expected impact of anticipated Carbon Pricing Mechanisms (CPMs) on BASF's potential Scope 1 and 2 emissions by 2030⁴². Using the Inevitable Policy Response (IPR) carbon pricing for 2030, and the geographic origin of its emissions in 2022⁴³, the projected financial impact of operating emissions by 2030 could reach **EUR 888 million per year**⁴⁴, equivalent to 5% of the company's current five-year average annual gross profit. Still, please remember that due to plant shutdowns related to the energy crisis, and the lack of emissions data on the new facilities in China, the calculated trend by 2030 might be overly optimistic. Hence, the potential policy risk calculated by Planet Tracker could be underestimated.

40 Source: BASF 2023 CDP Climate Response, section C2.3a

41 As these will become irrelevant under a Net Zero economy.

42 Based on Planet Tracker initial extrapolation Scope 1 and 2 would total 13,978 KTCO_{2e} by 2030.

43 The geographic source of emissions for 2023 was not publicly available at the time of this report.

44 At an average price of 63.5 EUR/TCO_{2e}

Physical Impact Drivers⁴⁵

Based on the company's disclosures, BASF's largest production site in Ludwigshafen is vulnerable to physical climate risks related to the Rhine River, which is essential for cooling water and transportation of raw materials and products (about 40% of goods are transported via the river).

Historical events like the 2003 heatwave and the 2013 flood prompted BASF to enhance site robustness through measures like low-water pumps and alternative transport options.

In 2018, an exceptional drought and heatwave led to prolonged low water levels⁴⁶ and high water temperatures, exceeding the capacity of existing mitigation measures. This resulted in decreased production capacity and a negative earnings impact of approximately **EUR 250 million**, primarily due to transportation bottlenecks for raw materials. Consequently, based on this 2018 experience, BASF estimates the potential maximum impact of similar future events at EUR 250 million. This is the equivalent to 2.2% of the company's current five-year average annual sales from Germany.

Market Impact Drivers⁴⁷

Self-denominated as the world's largest chemical supplier to the automotive industry, BASF anticipates increased demand for low-emission products due to the transition to electromobility and stricter emissions regulations (e.g., EU's target of 100% CO₂ emissions reduction from new cars by 2035). In 2022, over 20% of BASF's sales were linked to the automotive industry.

Key initiatives include:

- 1. Advanced Cathode Active Materials (CAM):** Developing high-performance CAM for lithium-ion batteries, essential for electric vehicles (EVs). BASF aims to offer CAM with a leading CO₂ footprint by using renewable energy and local production processes.
- 2. Battery Recycling:** Constructing a prototype plant in Schwarzheide, Germany, to recycle lithium-ion batteries, recovering valuable metals like lithium, nickel, cobalt, and manganese.
- 3. ChemCycling™:** Recycling plastic waste into primary materials, reducing CO₂ emissions compared to using fossil resources.

The potential financial impact of these initiatives is estimated at **EUR 7 billion** in annual sales by 2030, being equivalent to 10% increase compared to the company's current five-year average annual sales (2019 to 2023). Key assumptions include:

- The CAM market expected to grow at about 25% per year, reaching a total value of EUR 150 billion by 2030
- Anticipation of over 48 million electric vehicles produced annually by 2030.
- BASF targeting a market share of over 10% in relevant segments, corresponding to more than EUR 7 billion in sales.

⁴⁵ Source: BASF 2023 CDP Climate Response, section C2.3a

⁴⁶ See [Link](#) for more details.

⁴⁷ Source: BASF 2023 CDP Climate Response, section C2.4a

RISK MANAGEMENT

External Policy Risk Management⁴⁸

To mitigate the regulatory risks, especially those coming from the EU ETS, BASF has implemented several measures with an estimated total cost of EUR 1 billion between 2021 and 2025:

- 1. Development of Low-Carbon Technologies:** Examples include investing in CO₂ free production processes, such as electrically heated steam crackers powered by renewable energy⁴⁹, and significant carbon capture and storage projects, like the one in Antwerp under the North Sea⁵⁰. Yet, other organisations, like our sister company Carbon Tracker do not see CCS optimistically⁵¹.
- 2. Energy Efficiency Improvements:** Focused on enhancing efficiency at production plants, BASF's sites certified under ISO 50001 energy management systems, representing around 89% of its primary energy demand in 2023. However, while a few examples are given⁵², the end result in terms of total emissions reduced due to energy-efficiency upgrades was not disclosed.
- 3. Renewable Energy Adoption:** Increasing the share of renewable energy in power supply by signing long-term purchase agreements with suppliers like Ørsted and Engie, and by investing primarily in wind farms (e.g., in Hollandse Kust Zuid together with Vattenfall and Allianz). In 2022, 39 BASF sites in Europe were fully or partially powered by emission-free electricity.
- 4. Cost Calculations and Planning:** For all projects, BASF calculates CO₂ abatement costs and follows a linear CO₂ reduction pathway from 2018 to 2030, focusing on projects with the lowest abatement costs to meet its reduction targets.

⁴⁸ Source: BASF 2023 CDP Climate Response, section C2.3a

⁴⁹ For more details see BASF's [A Green Engine for Chemistry](#) and [BASF, SABIC and Linde's electrically heated steam cracker opens its doors](#).

⁵⁰ For more details see Antwerp@C - The CCUS Hub; According to the company, this project could enable BASF to avoid 1,000 KTCO₂e per year (or 1% of its total footprint in 2023).

⁵¹ For more details read: [CCUS: A Reality Check - Carbon Tracker Initiative](#)

⁵² 2023 examples include (1) Ludwigshafen (Germany) – digital energy optimisation: enabled BASF to avoid 15 KTCO₂e per year; (2) Freeport (Texas, US) – optimised control system: led to an annual reduction of more than 6 KTCO₂e; Caojing (China) – heat pumps use: enabled a decrease in annual emissions by more than 25 KTCO₂e. Overall, these example reduced operating emissions by 46 KTCO₂e or 0.3% of total operating emissions, and 0.04% of BASF's total footprint in 2023.

Physical Impact Management⁵³

To enhance resilience against physical risks, BASF has invested EUR 23 million from 2019 to 2022 in a set of targeted measures:

- **Climate Resilience Integration:** In 2019, climate resilience became a central strategic goal for the Ludwigshafen site.
- **Early Warning Systems:** Development of an early warning system for low Rhine water levels to improve supply chain forecasting.
- **Logistics Enhancements:** Expansion of logistics infrastructure to enable shifts to alternative transportation modes. BASF chartered ships suitable for low-water conditions and, in partnership with external entities, developed an innovative barge for extremely low water, operational since Q2 2023.
- **Cooling Capacity Improvements:** Optimisation and expansion of re-cooling systems in 2019 and 2020, along with improvements in the cooling water network control in 2021/22, to mitigate high water temperature impacts on cooling capacity.

Market Impact Management.

According to a previous announcement by the company, BASF plans to invest approximately EUR 4 billion between 2022 and 2030 to capitalise on the increased demand for low-emission products due to the transition to electromobility. Key actions include:

- **Expanding Production Capacities:** Building new battery Cathode Active Material (CAM) plants, such as the one in Schwarzheide, designed for quick scale-up⁵⁴.
- **Investing in Battery Recycling:** Starting up the prototype recycling plant in 2023, with plans for a commercial-scale plant in the near future⁵⁵.
- **Enhancing R&D Efforts:** Developing low-carbon solutions like high-energy-density battery materials to double the driving range of midsize cars and reduce charging times⁵⁶.

Concluding, BASF has assessed climate-related risks and opportunities, quantifying potential financial impacts and announced potential risks management plans. Moreover, the company is investing in mitigation strategies for both policy/transition and physical risks while capitalising on opportunities in the low-emission products market, particularly in the automotive sector. However, key details regarding the potential financial impact of climate change events outside Ludwigshafen (Germany), and the emissions abatement quantities linked to the development of low-emission products, energy efficiency and renewable usage are missing.

On a related note, during its Capital Markets Day in September 2024 BASF indicated that, considering recent market developments in electromobility, the company is de-risking its path forward by focusing on filling existing CAM capacities and exploring opportunities for collaborations along the value chain.

⁵³ Source: BASF 2023 CDP Climate Response, section C2.3a

⁵⁴ For more details see "[BASF to build commercial scale battery recycling black mass plant in Schwarzheide, Germany](#)".

⁵⁵ For more details see "[Recovering valuable metals in Schwarzheide: BASF has started prototype metal refinery for battery recycling](#)".

⁵⁶ For more details see BASF's [Battery Materials](#).

Strategic Assessment

CAPITAL ALIGNMENT

BASF reports its current and future capital investments as well as its alignment with the European Union (EU) Taxonomy Regulation. The EU Taxonomy aims to provide a framework for identifying environmentally sustainable economic activities, thereby guiding investments toward projects that support the EU's climate and energy targets. Accordingly, the company disclosed the share of its sales, capital, and operating expenses that are taxonomy-eligible and taxonomy-aligned under the environmental objectives of climate change mitigation and adaptation.

Taxonomy-Eligible and Taxonomy-Aligned Financials⁵⁷

For 2023, BASF identified several economic activities relevant under the EU taxonomy for the environmental objective of climate change mitigation. These include:

- Manufacture of batteries
- Manufacture of energy efficiency equipment for buildings
- Manufacture of hydrogen
- Manufacture of soda ash
- Manufacture of chlorine
- Manufacture of organic basic chemicals
- Manufacture of anhydrous ammonia
- Manufacture of nitric acid
- Manufacture of plastics in primary form

Also, under the environmental objective of pollution prevention and control, BASF included the manufacture of active pharmaceutical ingredients (API) or active substances for the first time in 2023.

When it comes to the financial indicators of these taxonomy-eligible and taxonomy-aligned categories, key data points (as summarised in **Tables 1**) include:

- **Taxonomy-Eligible Revenue:** In 2023, taxonomy-eligible revenue accounted for **12.2%** of BASF's total sales. The largest contributions came from the activities "manufacture of plastics in primary form" and "manufacture of organic basic chemicals."
- **Taxonomy-Aligned Revenue:** Taxonomy-aligned revenue accounted for **1.6%** of total sales. The "manufacture of batteries" made the largest contribution, accounting for 1.2%.

⁵⁷ Source: BASF 2023 Annual Report.

- **Taxonomy-Eligible Capital Expenditures (Capex):** Taxonomy-eligible capex accounted for **23.1%** of BASF's total investments reported in the consolidated financial statements. Significant contributions came from investments in the "manufacture of organic basic chemicals" and the "manufacture of batteries."
- **Taxonomy-Aligned Capital Expenditures:** Taxonomy-aligned capex accounted for **5.2%** of total investments. Investments in the "manufacture of batteries" contributed significantly at 4.1%. BASF is also investing in a plant for the production of CO₂ free hydrogen, which meets the criteria for taxonomy alignment.
- **Taxonomy-Eligible Operating Expenditures (Opex):** Taxonomy-eligible opex accounted for **12.4%** of total operating expenditures, with the largest contributions from "manufacture of organic basic chemicals" and "manufacture of plastics in primary form."
- **Taxonomy-Aligned Operating Expenditures:** Taxonomy-aligned opex accounted for **1.8%** of total operating expenditures, with the largest contribution from the "manufacture of organic basic chemicals" at 0.9%.

Table 1: Taxonomy-Eligible and Taxonomy-Aligned Financial Indicators Summary.

Source: BASF 2023 Annual Report

Categories	Taxonomy-Eligible Revenue	Taxonomy-Aligned Revenue
% of Total Sales	12.2%	1.6%
% of Total Capex	23.1%	5.2%
% of Total Opex	12.4%	1.8%

BASF explains these significant differences between taxonomy-eligible and taxonomy-aligned figures as a result of two main factors:

1. **Taxonomy Criteria:** Many of BASF's activities exceed the benchmarks set by the EU taxonomy, particularly regarding emission thresholds, i.e., only a small proportion of plastics in primary form contain a share of renewable raw materials above the required threshold.
2. **Calculation Methodology:** The requirement to calculate emissions in accordance with the EU ETS means that benefits from renewable energies and other activities that contribute to environmental objectives were not fully accounted for. Accordingly, investments in projects like the steam cracker at the Zhanjiang site in China and the electrified steam cracker prototype furnaces at Ludwigshafen, Germany, could not be classified as taxonomy-aligned despite their potential to avoid significant CO₂ emissions.

Current and Future Investments

Based on its disclosures, BASF aims to invest in new and more sustainable technologies and processes to achieve its climate targets. Consequently, the company’s growth projects, particularly the new Verbund site in Zhanjiang, China - described by BASF as a pioneer for sustainability - is expected to play a central role in this strategy.

Nevertheless, at Planet Tracker we are somewhat sceptical of the new Verbund site’s sustainability. For instance, the company claims this investment is sustainable based primarily on the fact that it will be run on 100% renewable electricity. However, the new steam cracker will still be dependent on oil and gas feedstocks, and energy until the steam cracker is electrified. Based on company disclosures this electrification might not happen until at least 2030 since the company stated it will not pursue major transition technology scaling projects until the next decade. Therefore, the new site could still add significantly to BASF’s emissions.

In 2023, BASF invested close to EUR 5.9 billion in additions to property, plant, and equipment⁵⁸, with capital expenditures accounting for close to EUR 5.2 billion. Most of these were concentrated in the Chemicals segment, predominantly in the Asia Pacific and Europe regions, as illustrated in **Figures 13 and 14**.

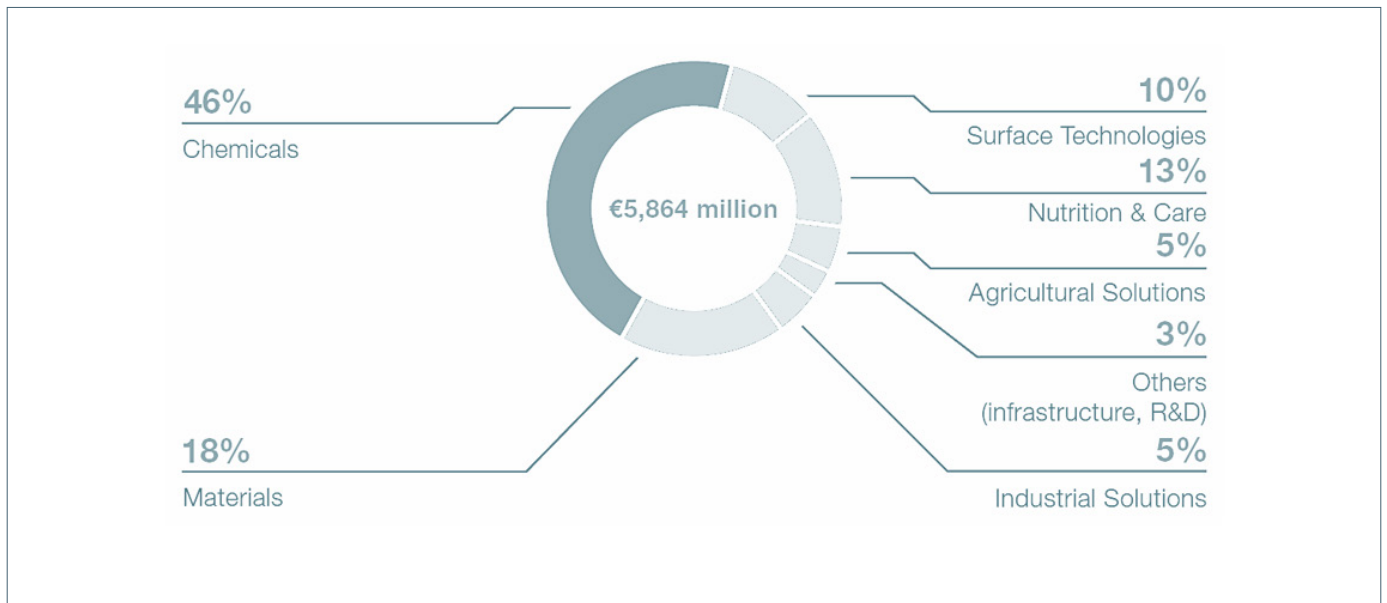


Figure 13: 2023 Additions to Property, Plant, and Equipment by Segment. Source: BASF 2023 Annual Report.

⁵⁸ These include additions to property, plant and equipment excluding acquisitions, restoration obligations, IT investments and right-of-use assets arising from leases.

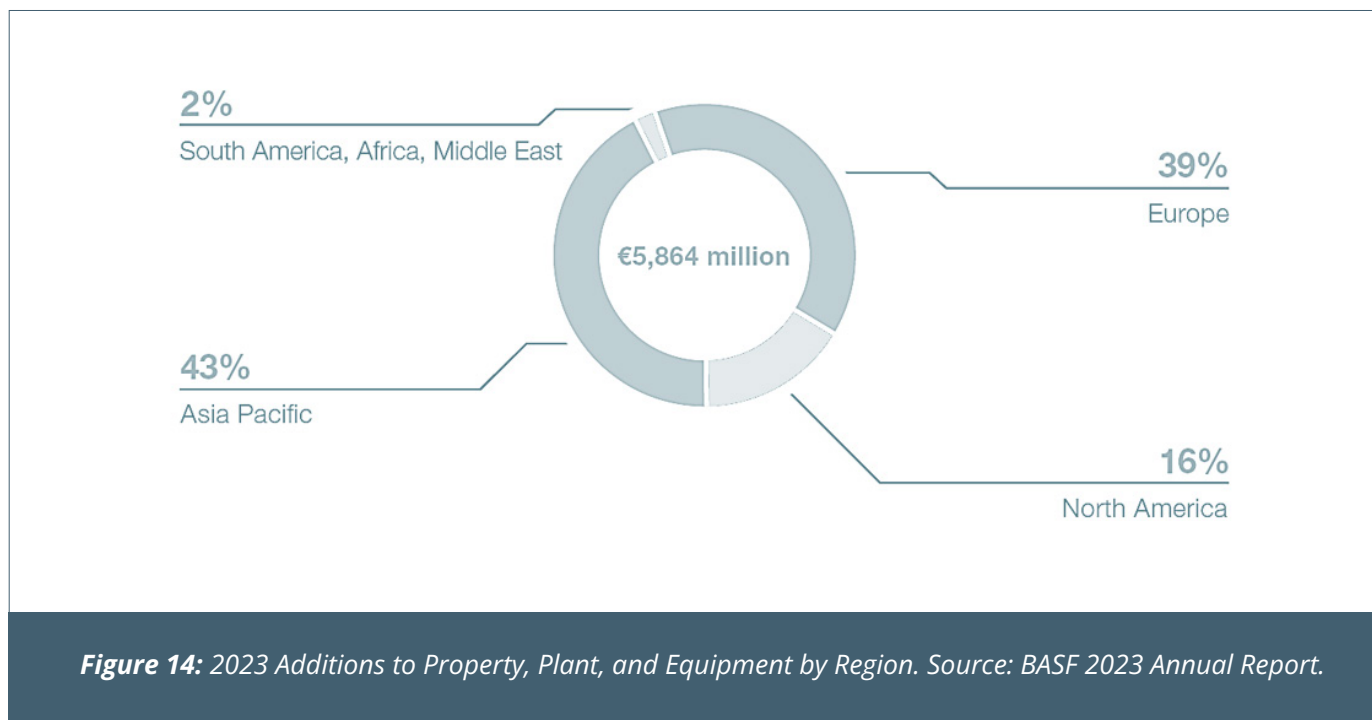


Figure 14: 2023 Additions to Property, Plant, and Equipment by Region. Source: BASF 2023 Annual Report.

Going forward, BASF has planned a total capex of around EUR 6.2 billion for 2024, including EUR 3.3 billion for growth projects⁵⁹. In addition, from 2024 to 2027, the company aims to deploy a capex of EUR 19.5 billion, as described in **Figures 15 and 16**. This mid-term investment includes EUR 6.8 billion for growth projects, mainly for the new Verbund site in China and the expansion of its battery materials business⁶⁰.

⁵⁹ Mainly for the new Verbund site in China.

⁶⁰ A list of projects currently being planned or underway is presented in Annex 2.

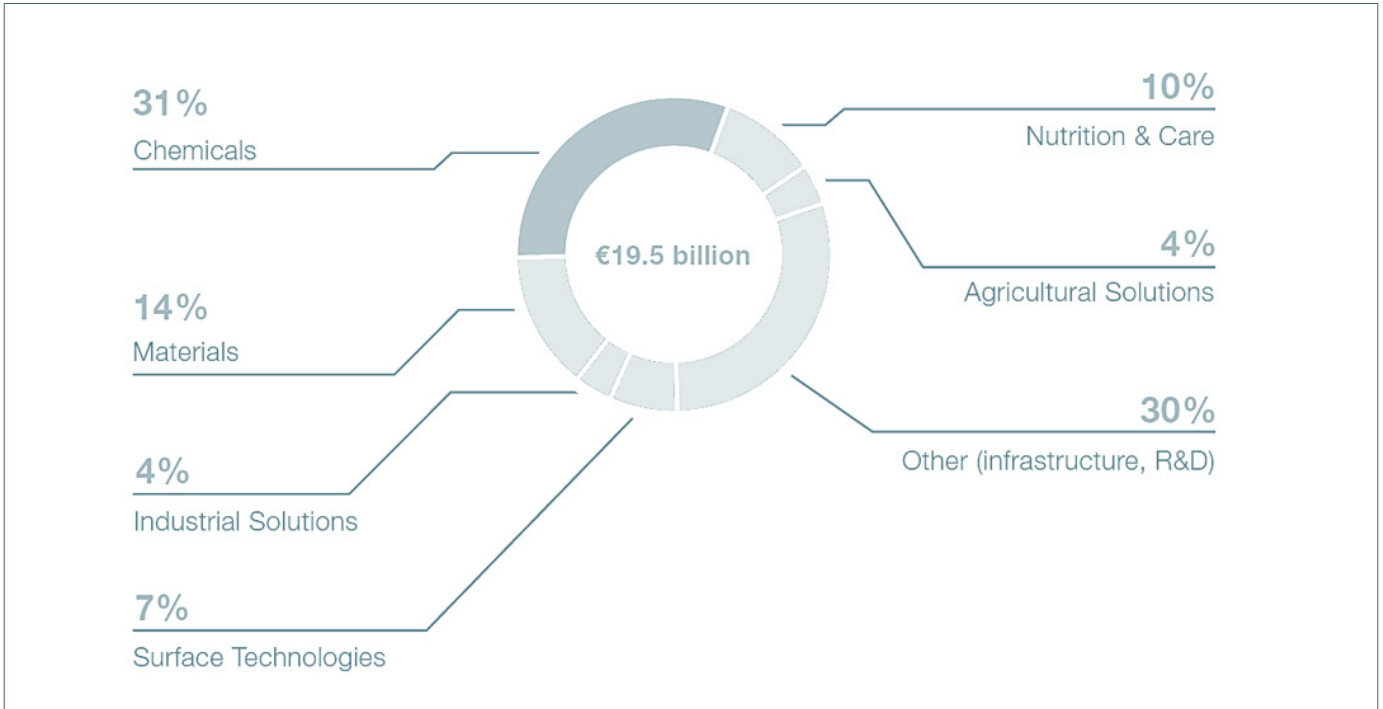


Figure 15: 2024-2027 Capex by Segment. Source: BASF 2023 Annual Report.

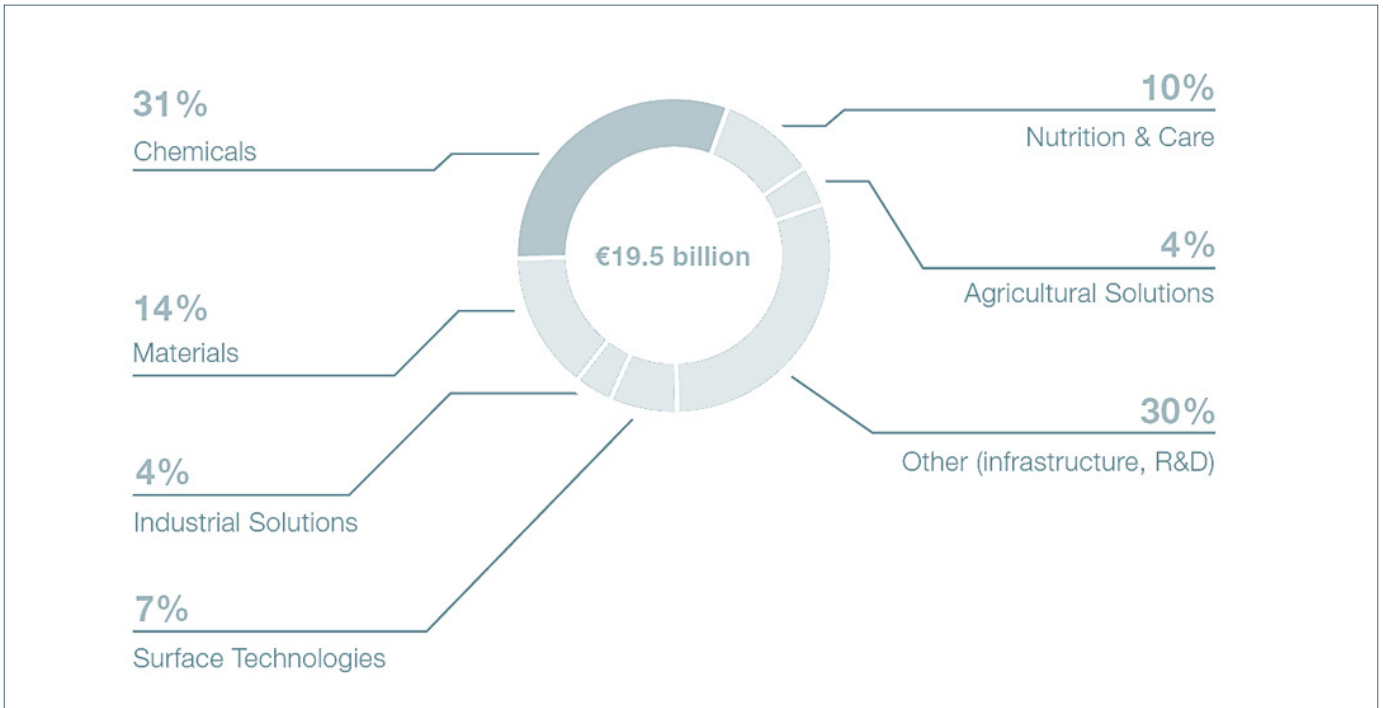


Figure 16: 2024-2027 Capex by Segment. Source: BASF 2023 Annual Report.

Therefore, the development of the new Verbund site in Zhanjiang, incorporating advanced technologies to reduce emissions and improve efficiency, seems to be at the core of the company's transition investments. However, due to the criteria specified by the EU taxonomy, this site and other projects aimed at significant CO₂ emission reductions are not fully reflected as taxonomy-aligned.

As a result, to enhance its capital alignment with climate objectives, BASF may need to collaborate with regulatory bodies to address limitations in the taxonomy but could also adjust projects to align more closely with the specified benchmarks. More urgently, BASF should provide detailed disclosures on how its investments contribute to sustainability goals⁶¹, even if not fully captured by the taxonomy, for a cleared picture of its investments' expected outcomes.

Overall, while BASF is investing in sustainability initiatives, the gap between taxonomy-eligible and taxonomy-aligned activities suggests there is room for improvement. Addressing these challenges and improving its expected emissions mitigation disclosures will strengthen BASF's position and enhance the credibility of its climate transition plans.

⁶¹ I.e., emissions mitigated by its financed activities.

TRANSITION APPRAISAL

Throughout this paper, we examined BASF's climate transition strategy across several key areas, including emissions trends, policy and engagement, governance structures, climate-related risk management, and capital allocation. While the company demonstrates a commitment to sustainability and has implemented various initiatives to reduce its carbon footprint, certain gaps could detract from its ability to align with the most ambitious climate goals.

Over the past five years (2019-2023), BASF has achieved a significant reduction of over 14% in total GHG emissions. By 2030, Planet Tracker projects that BASF's emissions will decrease by 22%, reaching 80,474 KTCO₂e from 103,286 KTCO₂e in 2023. Despite these positive trends, its lack of disclosed post-2030 strategies introduces uncertainty regarding its long-term alignment with Paris Agreement targets. While BASF appears on track to meet its 2030 emissions mitigation goals, the absence of specific steps for achieving Net Zero by 2050 raises concerns about its ability to sustain these reductions in an industry heavily reliant on fossil fuels feedstock.

To ensure the achievement of its climate transition targets, BASF engages with suppliers and customers through programs like the Supplier CO₂ Management Program and by offering PCF data. These initiatives aim to enhance transparency and promote sustainable practices throughout its value chain. Still, the company lacks detailed reporting on emissions reductions achieved through engagement activities. Furthermore, its sustainability oversight is integrated within the company's general governance. However, the absence of a dedicated sustainability committee may limit the company's oversight and management capabilities when it comes to climate issues. Similarly, while BASF's executive compensation includes sustainability factors, particularly in long-term incentives linked to emissions reduction targets, the impact of these factors is uncertain when other financial targets are achieved⁶².

On a positive note, the company has identified climate-related risks and opportunities, quantifying potential financial impacts and investing in mitigation strategies. BASF is proactively addressing policy and physical risks while seeking opportunities in the low-emission products market, especially within the automotive sector. To enhance these disclosures, we would recommend more details on the financial impact of climate events beyond BASF's German operations and specific data on emissions abatement from energy efficiency and renewable inputs. Providing this information would enhance the robustness of its risk management approach and offer investors a comprehensive understanding of the company's climate-related risks and opportunities.

When it comes to its climate transition linked expenditures, BASF is investing in advanced technologies and new facilities, such as the Verbund site in Zhanjiang, aiming to reduce emissions and improve operational efficiency. However, the EU Taxonomy's criteria do not fully recognise these projects as taxonomy-aligned, leading to a significant gap between eligible and aligned activities. To improve capital alignment with recognised climate objectives, BASF may need to adjust its projects to meet regulatory benchmarks or collaborate with regulatory bodies to address limitations in the current taxonomy. Still, more importantly, BASF should enhance disclosures on how its investments contribute to sustainability goals by disclosing expected emissions mitigated per project financed.

62 The uncertainty comes as due to the caps on variable remuneration the achievement of financial targets might nullify the sustainability incentives.

In conclusion, while BASF is making meaningful progress towards its climate transition goals, as shown by the decline in its GHG emissions⁶³, the absence of a disclosed post-2030 strategy suggests that it may not fully align with the most ambitious climate targets. This assessment is further supported by the lack of detailed reporting on emissions reductions through supplier and customer engagements, the absence of a dedicated sustainability board committee, limited disclosures on the financial impacts of climate events outside Germany, and insufficient clarity on the expected emissions abatement from energy efficiency and renewable inputs initiatives. Consequently, given the restricted visibility, we conclude that BASF is more likely to align with a 2°C warming scenario by 2030 rather than the more ambitious 1.5°C target.

Planet Tracker concludes BASF is expected to align with a 2°C pathway by 2030⁶⁴.

63 Comparatively, based on like-for-like emissions data: between 2019 and 2023, Bayer achieved an 11% absolute reduction in total GHG emissions; between 2020 and 2023, Dow achieved a 10.9% reduction, Air Liquide experienced a slight decrease of 0.5%, and LYB experienced a 3% absolute increase in emissions; lastly, between 2020 and 2022, SABIC had a 0.5% absolute increase in GHG emissions;

64 Based on the data accessed by Planet Tracker until November 2024.

Annex I

German Chemical Industry Association (VCI). The VCI has been actively involved in climate change policy discussions at both the EU and German levels, often adopting positions that can be seen as obstructing. While the association has supported high-level goals related to climate ambition and the shift towards renewable electricity for the chemical industry from 2022 to 2024, it has frequently opposed regulatory measures. Notably, the VCI has expressed opposition to several critical components of the EU Emissions Trading System, reflecting its selective support for climate initiatives.

European Chemical Industry Council (Cefic). Cefic has shown a mixed stance towards EU climate change policies. The council has strategically engaged with EU policymakers across various policy areas, indicating a shift towards more positive engagement with climate policy since 2015. Despite this progress, Cefic continues to resist certain legislative proposals, particularly those aimed at enhancing the goals of the EU Emissions Trading System. This selective engagement highlights its still conservative approach to supporting climate policy.

China Petroleum and Chemical Industry Federation (CPCIF). CPCIF has publicly endorsed climate policies through supportive statements on top-line objectives, including setting a cap on carbon emissions and specific carbon intensity targets. However, the federation exhibits resistance to fundamental changes in the energy sector, opposing shifts in the energy mix away from fossil fuels and the transition of chemical feedstocks away from fossil-based sources. This stance suggests a conservative approach to more transformative climate policies.

Annex II

Overview of material investments

Segment	Location	Project	Startup
Chemicals	Antwerp, Belgium	Capacity expansion at ethylene oxide plant	2023
		Construction of a new world-scale alkylethanolamines plant	2024
	Kuantan, Malaysia	Capacity expansion at 2-ethylhexanoic acid plant ^a	2024
	Ludwigshafen, Germany	Modernization of chloroformates and acid chlorides plant	2025
	Nanjing, China	Capacity expansion at plants for propionic aldehyde, propionic acid, purified ethylene oxide, ethanolamines and ethyleneamines, and construction of a new tert-butyl acrylate plant ^b	2023
	Zhanjiang, China ^c	Construction of a new steam cracker and plants for ethylene oxide, syngas, monoethylene glycol, polyethylene, oxo-C4 alcohols, acrylic monomers and neopentyl glycol	2025
Materials	Chalampé, France	Construction of a world-scale production plant for hexamethylenediamine (HMD)	2024
	Geismar, Louisiana	Capacity expansion at MDI plants	2025
	Zhanjiang, China	Construction of a new thermoplastic polyurethane plant	2023
Industrial Solutions	Huizhou, China	Capacity expansion at acrylics dispersions plant	2024
	Huizhou and Zhenjiang, China	Modification at two dispersions plants for anode binder production	2023
	Jiaxing, China	Capacity expansion at sulfuric acid plant	2023
	Lampertheim, Germany and Pontecchio Marconi, Italy	Capacity expansion for hindered amine light stabilizers (HALS)	2024
	Merak, Indonesia	Capacity expansion at acrylics and styrene-butadiene dispersions plants	2023
Surface Technologies	Harjavalta, Finland	Construction of a precursor plant for cathode active materials	- ^d
	Münster, Germany	Construction of a production plant for more sustainable OEM coatings	2025
	Schwarzheide, Germany	Construction of a cathode active materials plant	2023
		Construction of a battery recycling prototype plant	2024
		Construction of a battery recycling plant for production of black mass	2024
	Würzburg, Germany	Capacity expansion for OEM coatings	2025
Nutrition & Care	Antwerp, Belgium	Capacity expansion for alkoxyates	2023
	Düsseldorf, Germany	Gradual upgrade of production plants in accordance with the Good Manufacturing Practice Standard issued by the European Federation for Cosmetic Ingredients (EFfCI)	2023
	Jinshan, China	New production line for UV filters	2023
	Ludwigshafen, Germany	Capacity expansion at production plant for vitamin A	2023
		Construction of a production plant for menthol and linalool	2026
	Zhanjiang, China	Construction of a production plant for citral	2026
Agricultural Solutions	Beaumont, Texas, and Hannibal, Missouri	Modernization of site infrastructure	2027
	Europe ^e	Traceability of crop protection products based on digital identification	2024
	Ludwigshafen, Germany	Construction of a fermentation facility to produce sustainable crop protection products	2025
	Schwarzheide, Germany	Reduction of organic waste streams	2024

^a Operated by a fully consolidated joint venture with PETRONAS Chemicals Group Berhad

^b Operated by a joint venture with Sinopec; startup of the plant expansions for ethanolamines and ethyleneamines at the beginning of 2024.

^c The Verbund site will be built and commissioned in several phases.

^d The required approval from the relevant authorities has been granted. Startup of the plant is scheduled following the legally binding conclusion of the opposition proceedings.

^e This project will be implemented in Genay and Graveline, France, in Ludwigshafen, Germany, and in Tarragona, Spain.

For more details see: *Annual Report 2023*, p 43.

DISCLAIMER

As an initiative of Tracker Group Ltd., Planet Tracker's reports are impersonal and do not provide individualised advice or recommendations for any specific reader or portfolio. Tracker Group Ltd. is not an investment adviser and makes no recommendations regarding the advisability of investing in any particular company, investment fund or other vehicle. The information contained in this research report does not constitute an offer to sell securities or the solicitation of an offer to buy, or recommendation for investment in, any securities within any jurisdiction. The information is not intended as financial advice.

The information used to compile this report has been collected from several sources in the public domain and from Tracker Group Ltd. licensors. While Tracker Group Ltd. and its partners have obtained information believed to be reliable, none of them shall be liable for any claims or losses of any nature in connection with information contained in this document, including but not limited to, lost profits or punitive or consequential damages. This research report provides general information only. The information and opinions constitute a judgment as at the date indicated and are subject to change without notice. The information may therefore not be accurate or current. The information and opinions contained in this report have been compiled or arrived at from sources believed to be reliable and in good faith, but no representation or warranty, express or implied, is made by Tracker Group Ltd. as to their accuracy, completeness or correctness and Tracker Group Ltd. does also not warrant that the information is up-to-date.



ABOUT PLANET TRACKER

Planet Tracker is a non-profit financial think tank producing analytics and reports to align capital markets with planetary boundaries. We aim to create a significant and irreversible transformation of global financial activities by 2030. By informing, enabling and mobilising the transformative power of capital markets we aim to deliver a financial system that is fully aligned with a net-zero, nature-positive economy. Planet Tracker proactively engages with financial institutions to drive change in their investment strategies. We ensure they know exactly what risk is built into their investments and identify opportunities from funding the systems transformations we advocate.

PLANET TRACKER'S CLIMATE TRANSITION ANALYSIS

As part of its Petchems programme, Planet Tracker is examining the transition plans of chemical companies covered by the Climate Action 100+ list (<https://www.climateaction100.org/whos-involved/companies>). Our goal is to provide investors with the key information and analysis they need to be able to hold leading chemical companies to account for the quality of their climate transition plans and their execution against those plans. We also encourage investors to use this information to engage effectively with these companies with the ultimate aim of driving the sustainable transformation of the chemical industry.

ACKNOWLEDGEMENTS

Lead Author: Ion Visinovski, Senior Research Analyst, Planet Tracker

Collaborators: John Willis, Director of Research, Planet Tracker

Company representatives were contacted for feedback and provided their input by the 9th of December 2024. Their views have been incorporated into the report.

This research paper was updated on 19 December 2024 to reflect that the 15% Scope 3.1 mitigation target is not an absolute but an intensity based one.

WITH THANKS TO OUR FUNDERS



*Suggested citation:
Visinovski I., BASF Climate Transition Analysis,
Planet Tracker (2024)*

*For further information please contact: Nicole Kozlowski, Head of Engagement,
Planet Tracker nicole@planet-tracker.org*