BASF (BAS)
Climate Transition Analysis

Climate Action 100+ Focus Company

Overall Assessment

Planet Tracker: BASF would align with a 2°C warming scenario by 2030.

This analysis reviews BASF's climate transition strategy, highlighting both progress and remaining gaps.

Targets & emissions: Between 2020 and 2024, BASF cut its operating emissions (Scope 1 and 2) by 17%, broadly on track for its 2030 target of a 25% reduction from 2018 levels. However, upstream Scope 3 emissions, which account for more than half of the company's footprint, rose again in 2024, while downstream emissions (29% of the total) remain only partially addressed.

Decarbonisation actions: The new Verbund site in Zhanjiang, China, although powered by renewable electricity, is unlikely to deliver deep reductions until its steam cracker is electrified, raising questions over the near-term impact. BASF continues to engage suppliers and customers through Product Carbon Footprints (PCF), negotiated pathways, and low-carbon product offerings. These initiatives promote transparency but lack disclosure of quantified abatement.

Oversight: Governance is embedded in general board structures, with climate factors included in long-term incentives, yet oversight may be constrained by the absence of a dedicated sustainability committee.

Capex: The company is investing in renewables, efficiency measures, and pilot technologies, but taxonomy-aligned spending remains low, and transition capex is well below the level required for 1.5°C alignment. Hence, BASF's trajectory is more consistent with a 2°C pathway than with the ambitious 1.5°C scenario.

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+.


Aligned with 1.5°C


Aligned with +2°C


Aligned with BAU+3°C

Download the Shareholder Engagement Sheet.

Climate Alignment

- BASF reduced total GHG emissions by 3.1% between 2020 and 2024, with Scope 1 and 2 emissions down 17.2%, achieving around 72% of its 2030 reduction target. However, these reductions largely reflect volume declines over the period rather than reflecting specific decarbonisation actions.
- While BASF is well positioned to meet its near-term Scope 1 and 2 goals, Scope 3 targets remain limited to upstream (raw materials), excluding major downstream categories.

Policy and Governance

- BASF is strengthening supplier and customer engagement through PCF data, procurement standards, and circular solutions, but the absence of quantified Scope 3 reduction targets and mixed policy influence limit its credibility.
- Management oversight integrates sustainability into core governance and long-term incentives, yet the lack of a dedicated ESG committee and the exclusion of short-term incentives linked to sustainability weaken alignment with climate transition goals.

Risk Analysis

- BASF faces material potential financial exposure from carbon pricing, evolving regulation, and physical hazards like low-water events, but most risk disclosures remain qualitative rather than quantified in monetary terms.
- While the company invests in decarbonisation technologies, renewable energy, and site resilience, its risk management still lacks transparent scenario assumptions.

Strategy Assessment

- BASF's capital allocation integrates internal carbon pricing and some climate-focused projects, but transition-related capex (EUR 225 million annually) is far below its estimated proportional sector share (approx. EUR 1 billion).
- While BASF is on track for its 2030 Scope 1 and 2 targets with stronger evidence of delivery, its reliance on post-2030 technology deployment, limited Scope 3.1 ambition, and under-allocation of transition capital suggest it is more aligned with a 2°C pathway than with a fully credible 1.5°C trajectory.

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Company Overview

BASF (BAS), founded in Germany in 1865, is the world's largest chemical producer.

In 2024, the Group generated sales of EUR 65.3 billion, with revenue contributions split across Europe (40%), North America (28%), Asia Pacific (25%), and South America, Africa and the Middle East (7%), as shown in **Figure 1**.

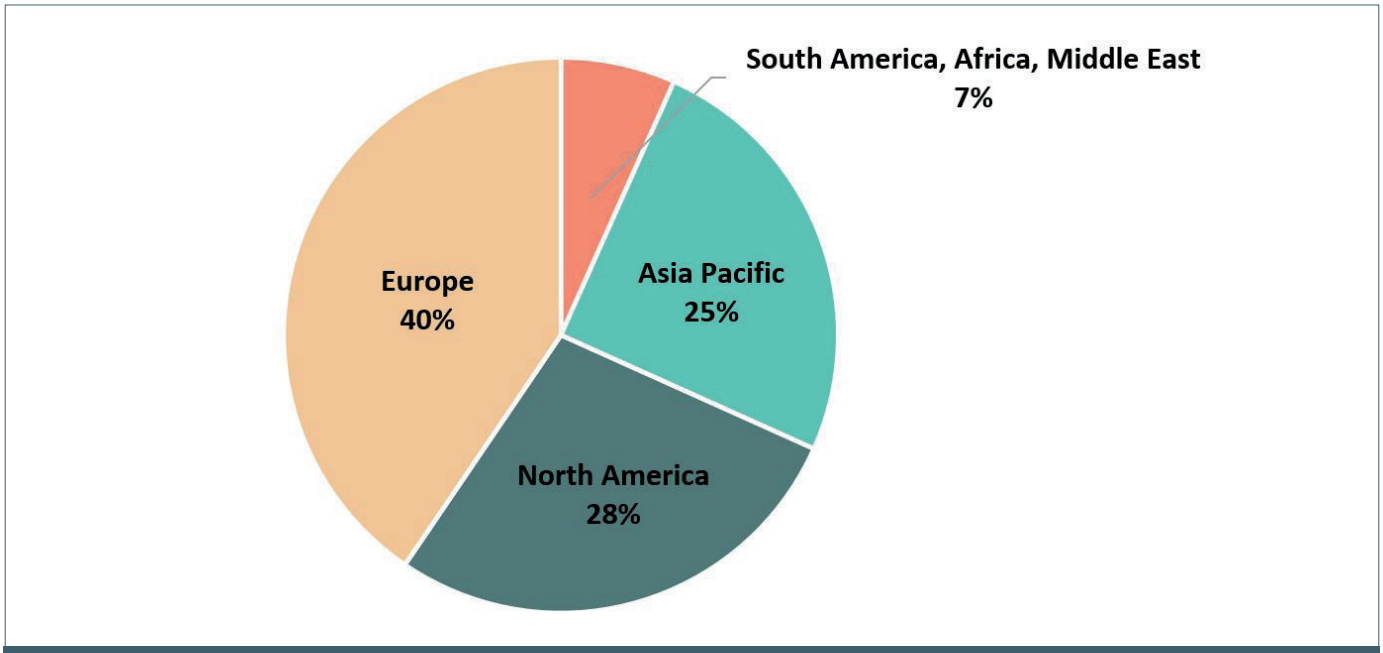

Figure 1: *Revenue (%)- Breakdown by Geography (5Y Avg.).*
Source: BASF Annual Reports 2020-2024

The company operates through six reporting segments: Chemicals (16%)[1] , Materials (20%)[2] , Industrial Solutions (12%)[3] , Surface Technologies (25%)[4] , Nutrition & Care (9%)[5] , and Agricultural Solutions (13%)[6] , with an "Other" category contributing around 5% of sales (five-year averages). Surface Technologies remains the largest revenue segment, driven by catalysts and coatings, followed by Materials and Chemicals, as presented in **Figure 2**.

1 The Chemicals segment supplies BASF's other segments and customers with basic chemicals and intermediates.
2 The Materials segment produces advanced materials and their precursors for the plastics and plastics processing industries.
3 The Industrial Solutions segment develops and markets ingredients and additives for industrial applications.
4 The Surface Technologies segment provides chemical solutions for surfaces and automotive OEM coatings, as well as battery materials and catalysts.
5 The Nutrition & Care segment produces ingredients and solutions for consumer applications such as human and animal nutrition, cleaning agents and personal care.
6 The Agricultural Solutions segment is an integrated solutions provider of seeds, crop protection products and digital solutions for the agricultural sector.

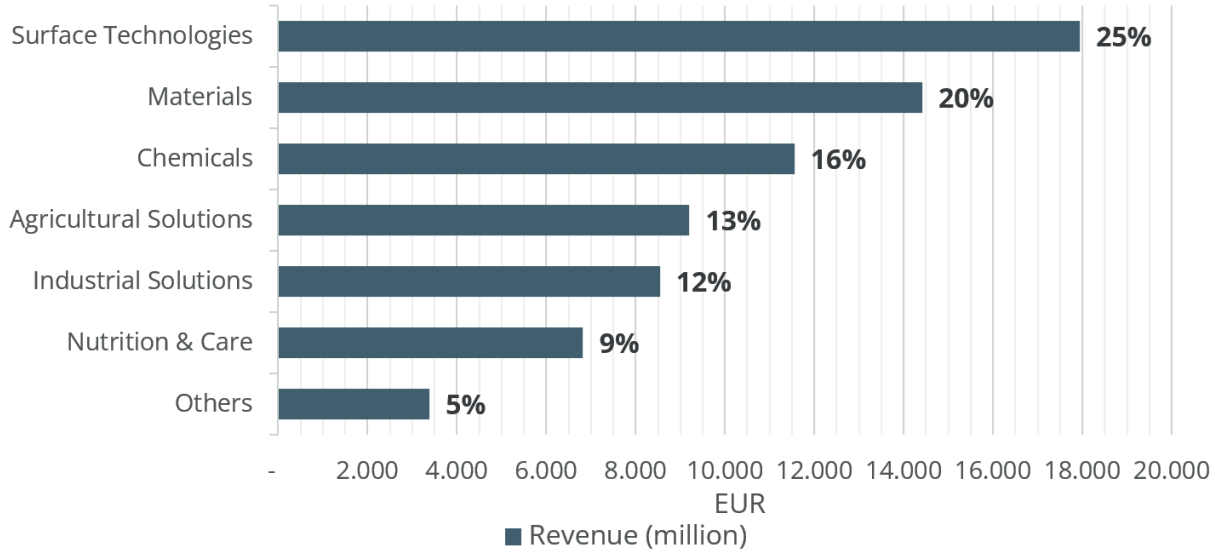

Figure 2: *Revenue (%) - Breakdown by Business Segments (5Y Avg.).*
Source: BASF Annual Reports 2020-2024.

BASF's manufacturing backbone is centred on six Verbund[7] sites: two in Europe (Ludwigshafen, Germany; Antwerp, Belgium), two in North America (Freeport, Texas; Geismar, Louisiana), and two in Asia (Nanjing, China; Kuantan, Malaysia); with a seventh Verbund site under construction in Zhanjiang, China, targeted to start up in late 2025. However, to date, Europe leads in the company's assets value with close to 50% of total, as illustrated in **Figure 3**.

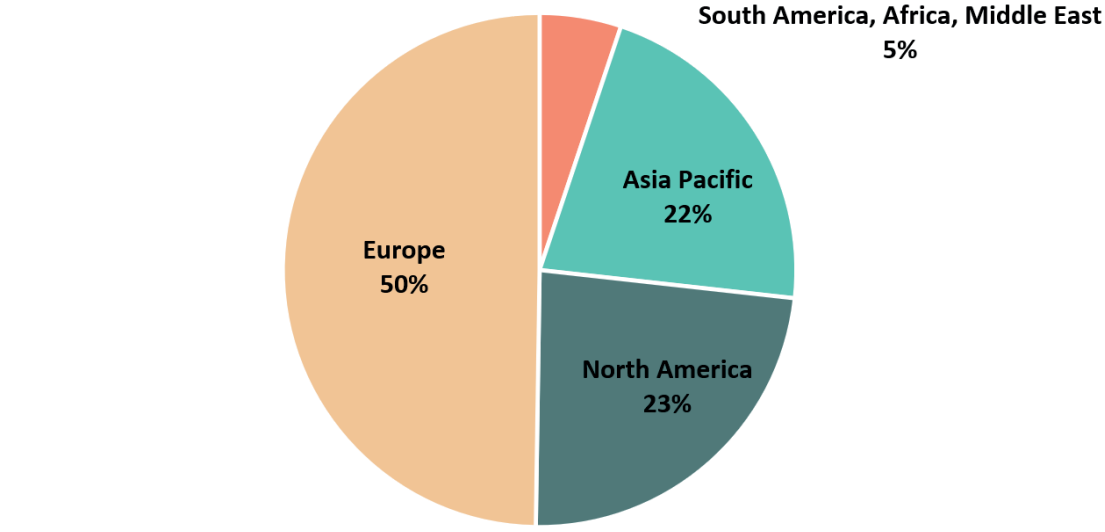

Figure 3: *Revenue (%) - Breakdown by Business Segments (5Y Avg.).*
Source: BASF Annual Reports 2020-2024.

7 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.

Verbund concept is central to BASF's competitive advantage, enabling close integration of value chains, resource efficiency, and potentially CO_2 optimised operations.

BASF's 2024 revenues of EUR 64.3 billion were down from EUR 68.9 billion in 2023, reflecting competition-driven price declines across its segments despite modest volume growth in core businesses and Agricultural Solutions. Over the past five years (2020–2024), BASF reported average annual sales of approximately EUR 71.8 billion, reflecting high commodity price impacts in 2021 and 2022. BASF generated EUR 7.9 billion of adjusted EBITDA in 2024 (a 12% margin) and EUR 0.7 billion of free cash flow.

In September 2024, BASF implemented a new corporate strategy distinguishing between **core businesses** (Chemicals, Materials, Industrial Solutions, Nutrition & Care) integrated within the Verbund, and **standalone businesses** (Surface Technologies, Agricultural Solutions) that serve distinct industries and compete with "pure-play" peers. Other **strategic portfolio adjustments** in 2024-2025 included:

- **Divestments:** Completion of the sale of Wintershall Dea's exploration and production business (excluding Russia) to Harbour Energy, providing BASF with USD 1.29 billion in cash and a 39.6% stake in Harbour Energy. An agreement was also signed to divest food and health performance ingredients operations to Louis Dreyfus Company.

- **Acquisitions/Investments:** Purchase of a 49% stake in Vattenfall's Nordlicht 1 & 2 offshore wind projects in the German North Sea, expected to deliver 1.6 GW of renewable capacity by 2028, with roughly half earmarked for supply BASF's European production sites, particularly Ludwigshafen.

In summary, BASF combines global scale and local integration with a strategic focus on differentiated core and standalone businesses. Its geographic revenue mix underscores exposure to Europe, North America and Asia Pacific, while its emissions profile is heavily influenced by Verbund operations in Germany, the US and China. For a credible climate transition, BASF will need to balance profitability with sustainable developments taking into account these dynamics.

Climate Alignment

EMISSIONS INVENTORY

Over the last five years (2020-2024), BASF reported average annual greenhouse gas (GHG) emissions of 111,981 $KTCO_2e$ (across Scopes 1-3), reaching a high of 122,528 $KTCO_2e$ in 2021 and a low of 103,337 $KTCO_2e$ in 2023. In 2024, operational activities accounted for 17,948 $KTCO_2e$ (16% of the total footprint), while upstream Scope 3[8] contributed 60,240 $KTCO_2e$ (55%) and downstream Scope 3[9] accounted for 31,410 $KTCO_2e$ (29%). Upstream emissions remain dominated by purchased goods (Scope 3.1), while downstream emissions are mainly linked to end-of-life treatment of sold products, i.e., disposal, as presented in **Figure 4**.

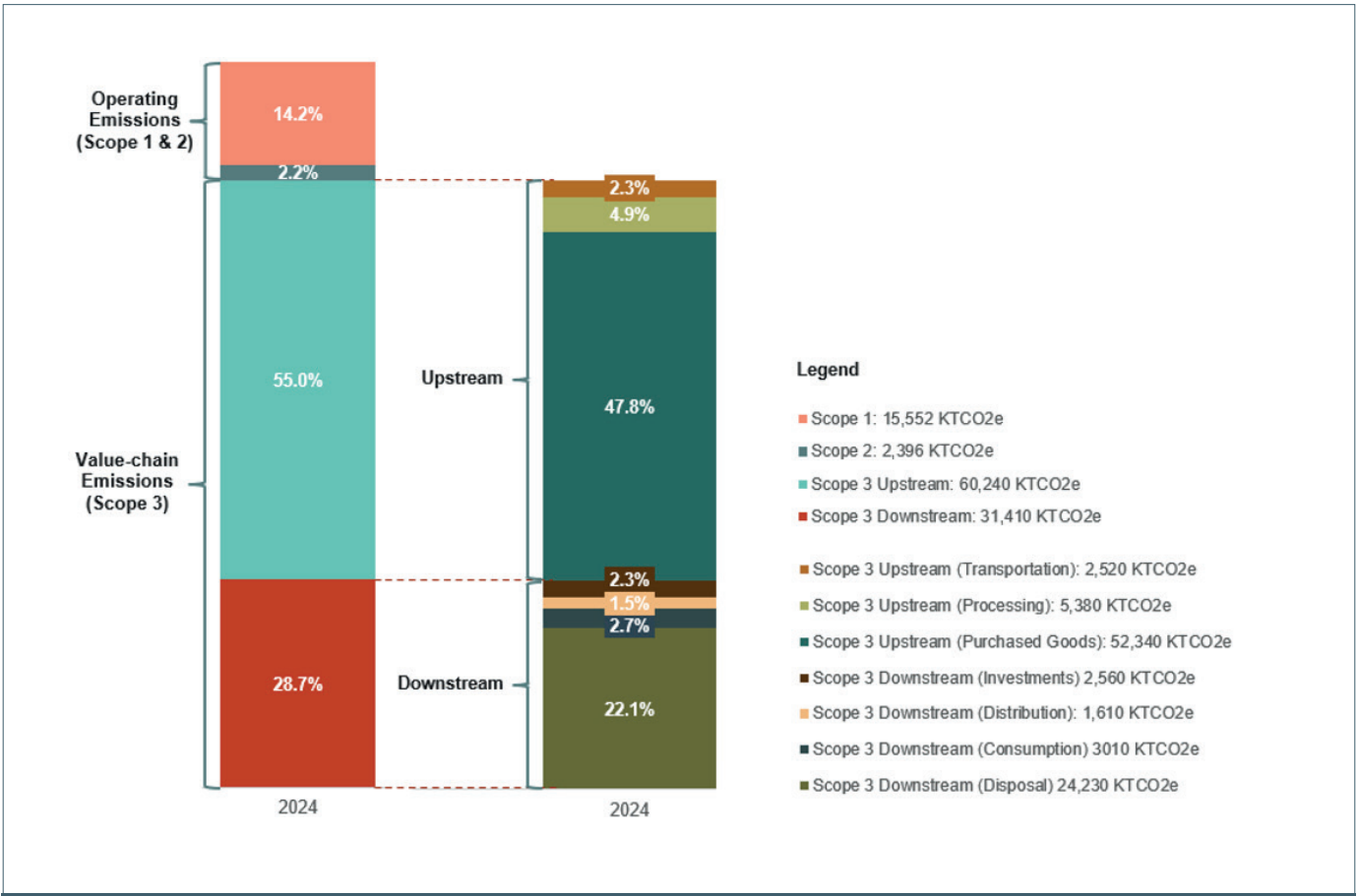

Figure 4: *Full Value Chain GHG Emissions (2024) - Percentage Breakdown by Scope.*
Source: BASF - E1 Climate Change.

8 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".

9 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

Between 2020 and 2024, BASF achieved a modest reduction of 3.1% in total GHG emissions. Operating (Scope 1 and 2) emissions fell from 21,674 $KTCO_2e$ in 2020 to 17,948 $KTCO_2e$ in 2024, representing a 17.2% absolute reduction. The primary contribution to this decrease appears to be a 10.7% reduction in sales volumes across this period[10], implying a minority contribution from active decarbonisation actions such as increasing the proportion of renewable energy (which increased from 16% of total electricity supply in 2021 to 26% in 2024). Downstream emissions also steadily declined over the period (down 22.9% from 2020 to 2024). However upstream emissions increased by 6% across the period, reflecting higher raw material intensity. The absolute reductions for the operating, upstream, and downstream emissions are outlined in **Figure 5**.

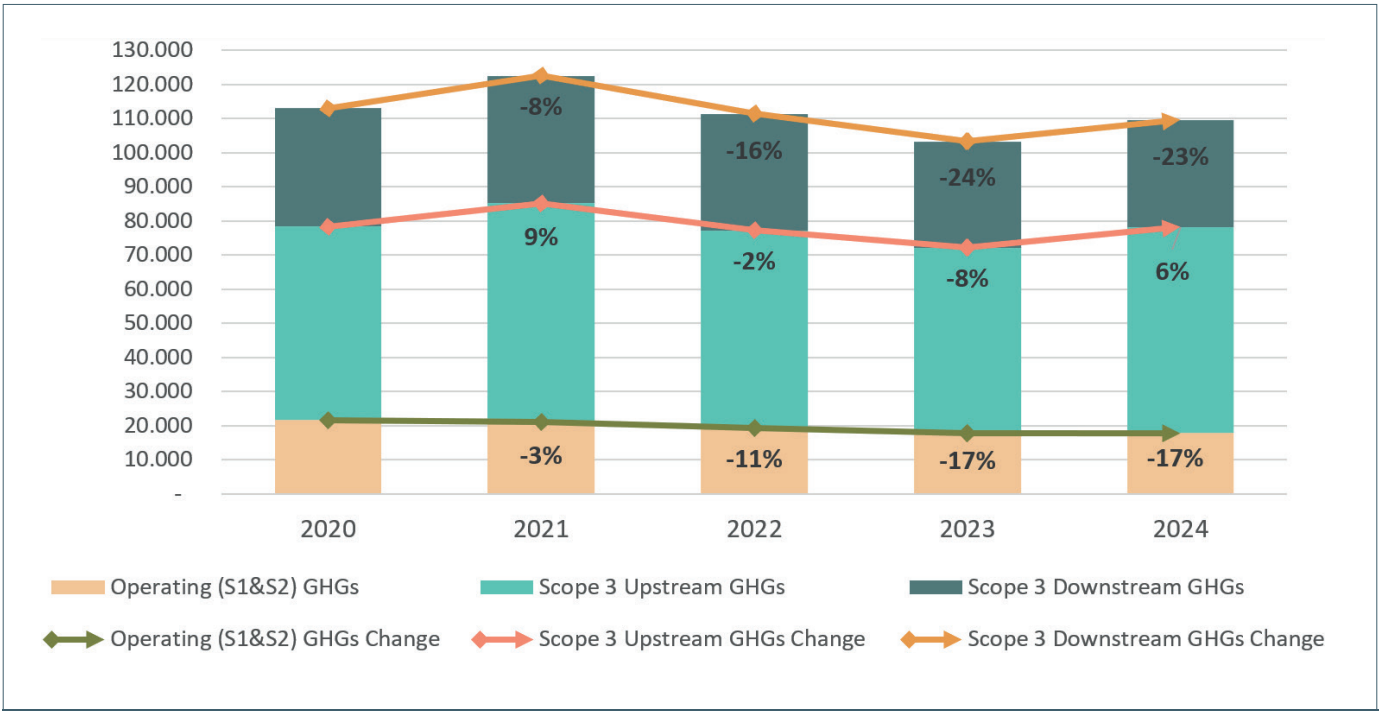

Figure 5: *Historic Scope 1, 2, and 3 CO_2e evolution (2019-2023). Source: BASF CDP Climate Response 2021-2023, BASF Scope 3 GHG Inventory Report, and BASF - E1 Climate Change.*

BASF's operating emissions are on a downward trajectory, broadly in line with its 2030 target of a 25% absolute cut from a 2018 baseline (21.9 $MTCO_2e$ to 16.4 $MTCO_2e$ as stated by the company). With 17,948 $KTCO_2e$ reported in 2024, the company has already achieved 72% of the required reduction. However, the 2025 forecast (16.7–17.7 $MTCO_2e$ as stated by BASF) suggests emissions may rise modestly with production recovery, requiring accelerated renewable energy uptake and efficiency gains to stay on track.

10 BASF reported sales volumes up 10.6% YoY in 2021, but then declining 7.0% in 2022, 8.4% in 2023 and 5.2% in 2024.

From 2024 to 2030, BASF expects to see an additional 4,900 $KTCO_2e$ generated from growth, offset by 5,500 $KTCO_2e$ of reductions (see Figure 6), of which:

- 3,200 $KTCO_2e$ from renewables
- 600 $KTCO_2e$ from low-emission steam
- 600 $KTCO_2e$ from operational excellence, and
- 1,100 $KTCO_2e$ from climate-smart technologies

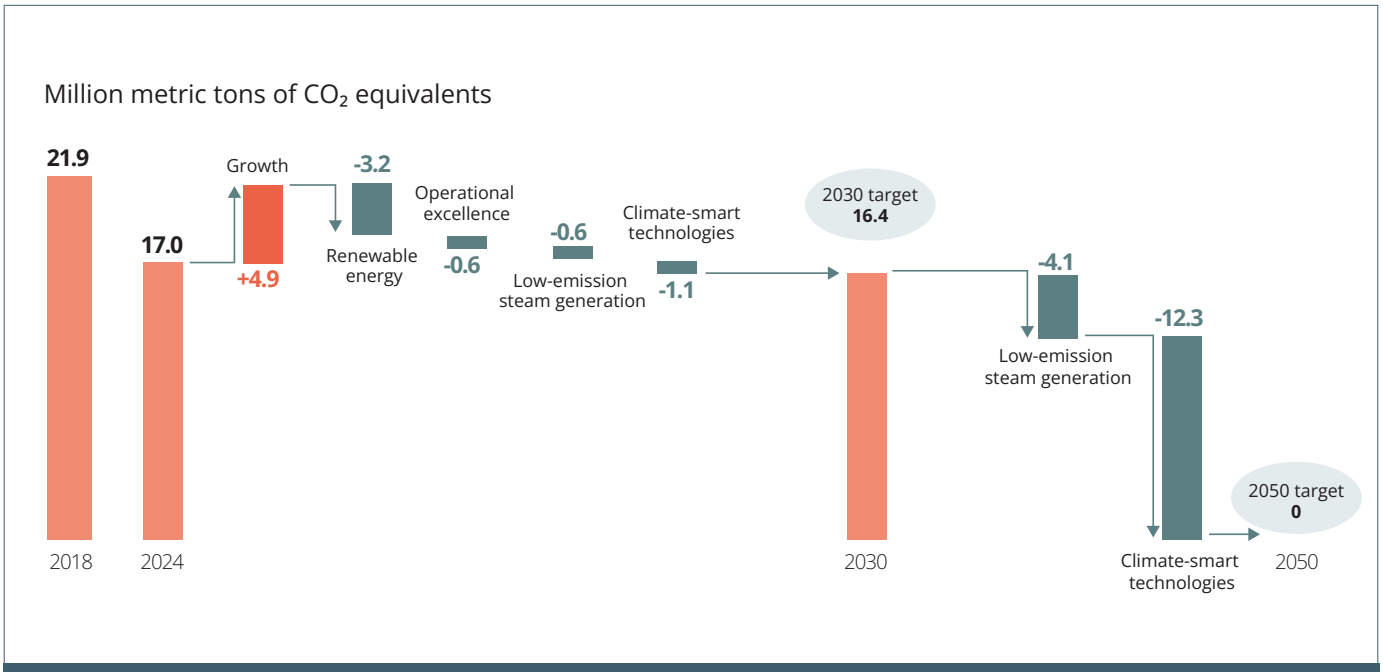

Figure 6: *BASF Operating emissions mitigation initiatives.* Source link

For value chain emissions, BASF has set an intensity reduction target of 15% for Scope 3.1 (raw materials) by 2030, going from 1.64 kg CO_2/kg purchased in 2022 to 1.39 kg. In 2024, intensity stood at 1.58 kg CO_2/kg purchased, showing some relative progress. Still, this target excludes other material Scope 3 categories such as product use (i.e., consumption) and end-of-life disposal, which together account for approximately a quarter of the company's total footprint.

To deliver on its targets BASF identifies three main levers:

1. Shift to **renewable electricity**, i.e., source >60% of electricity from renewable by 2030 (from 26% in 2024). Action examples include offshore wind projects such as Hollandse Kust Zuid and Nordlicht.

2. **Low-carbon production** processes, i.e., electrification[11], including efficiency improvements and process optimisation at Verbund sites. Exploratory plans include prototype e-cracker (in collaboration with SABIC and Linde), and a heat-pump system under construction at the Ludwigshafen site (although this has a modest emission reduction potential of only 100 $KTCO_2e$).

3. **Feedstocks circularity**, expanding the share of renewable, recycled and CO_2-based inputs, targeting Sustainable Future Solutions[12] growth from 46% to >50% of sales and Loop Solutions[13] from EUR 5 billion to EUR 10 billion[14].

BASF's historical performance suggests that it is likely to deliver its 2030 Scope 1 and 2 targets, which require just a further 8.6% reduction. However, the material contribution from volume contraction in emission reductions to date highlights that volume growth over the next few years could put this target at risk, including from the new Zhanjiang Verbund site which is due to become operational late this year. Progress will rely on core decarbonisation actions including continued renewable energy substitution to offset the volume effect from China. In addition, selective target coverage of Scope 3 (limited to upstream) remains a weakness, as the company has not quantified reduction pathways for downstream emissions.

In conclusion, BASF is reasonably well-positioned to meet its near-term 2030 Scope 1 and 2 targets, but its overall Paris alignment remains uncertain, especially in the long term. For instance, the IEA's Net Zero by 2050 (NZE) scenario implies far steeper reductions for energy- and process-intensive industries, with chemicals required to achieve close to a 45–50% reduction in direct CO_2 emissions by 2030 compared with 2018 levels. Against this benchmark, BASF's 25% reduction target looks closer to a "well below 2°C" trajectory than a 1.5°C aligned one, even if successfully delivered.

The picture is more concerning for Scope 3. BASF has chosen to set only an intensity reduction target for upstream Scope 3.1 emissions, aiming for a 15% cut per kg of raw materials by 2030. However, the company itself acknowledges that expected growth in production volumes could fully offset these intensity improvements, leaving absolute Scope 3 emissions essentially flat at around 50 $MTCO_2e$ through the decade. This is fundamentally inconsistent with IPCC guidance, which calls for a 43–48% reduction in global GHG emissions by 2030 to remain on a 1.5°C pathway. In effect, BASF's Scope 3 target represents not alignment but a decision to decouple relative intensity from absolute reductions, leaving the company structurally off-track on value-chain emissions.

Achieving Net Zero by 2050 will require a credible strategy for Scope 3 emissions reductions, including scaling circular and emission-neutral feedstocks, paired with large-scale electrification of production processes, energy efficiencies and renewable adoption.

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11 At the moment the company does not have an electrification target/commitment.

12 BASF defines 5 sustainability categories: Pioneer (24%), Contributor (22%), Standard (44%), Monitored (7%) and Challenged (1%). Pioneer (positive & above market contribution to sustainability) and Contributor (positive & in line with market) are classed as Sustainable Future Solutions.

13 BASF defines Loop Solutions as products that make a positive contribution to the circular economy in line with the TripleS methodology. These are products that are based wholly or partially on renewable or recycled feedstocks, that support the recycling process, or that increase durability of materials or prolong their functional life.

14 Please note that at the moment BASF does not have a clean feedstock target or a disclosures of the of the technologies employed/needed and delivery timeline.

Policy and Governance

ENGAGEMENT AND INFLUENCE

Petrochemicals remain at the core of BASF's business and constitute the majority of its feedstock base. Decarbonising this supply chain will therefore require a fundamental shift from fossil to emission-neutral feedstocks. Still, these are at an early stage of commercialisation and currently carry a significant cost premium, making large-scale transition both technically and economically challenging.

Against this backdrop, BASF's engagement with suppliers and customers is central to its climate transition strategy. The company is seeking to decarbonise its upstream inputs through supplier collaboration and transparency programmes, while enabling downstream emission reductions by offering low-carbon and circular products.

Suppliers' Engagement

BASF acknowledges that upstream Scope 3 mitigation (especially Scope 3.1) plays a key role in its transition plan. In 2024, upstream purchases accounted for the largest share of value-chain emissions (52 $MTCO_2e$ or 48% of the total), and the company proposed several supplier-focused programs to both raise transparency and aid emissions reductions.

Compliance and Oversight Measures

BASF's global Supplier Code of Conduct (updated for the German Supply Chain Due Diligence Act) promotes risk-based selection, assessment and auditing of suppliers, largely via Together for Sustainability (TfS[15]) audits and EcoVadis assessments. Moreover, Responsible Care audits are used selectively for higher-risk contract manufacturers. In 2024, BASF reported 118 raw-material supplier sites audited on its behalf by TfS and 328 suppliers evaluated by EcoVadis for potential sustainability risks.

While there are no specific emissions targets for its suppliers, through this process BASF aims to ensure that 80% of suppliers who underwent a sustainability evaluation during the reporting period, and who had inadequate results in a prior comparable evaluation, improve their sustainability performance. In 2024, the figure was 76%.

15 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.

Emissions Reductions Initiatives

- **Supplier CO_2 Management Program:** Since 2021, BASF has requested product carbon footprints (PCFs) from >1,900 suppliers (80% of raw-material GHG coverage) and validated PCFs for >1,700 raw materials (30% of raw-material emissions now covered by primary data). In 2024, BASF launched "phase 2" to negotiate PCF reduction pathways with suppliers and is integrating PCFs as a purchasing criterion.

- **Lower PCF feedstocks and energy**: In July-2024 BASF signed a 7-year biomethane agreement with ENGIE (2.7–3.0 TWh) to supply Ludwigshafen and Antwerp, enabling mass-balance allocation of lower PCF content to end products[16].

- **Standardisation and Digitalisation of Scope 3**: TfS's PCF Exchange (powered by Siemens' SiGREEN) went live in October 2024 and BASF has begun migrating data sharing to this platform, aligning with the updated 2024 TfS PCF Guideline[17].

Compared with last year, BASF has moved from transparency-building to early contracting for reductions (PCF pathways; green feedstocks), backed by broader data infrastructure (TfS PCF Exchange) and quantifiable supplier-management throughput (audits/assessments). These are credible precursors to upstream abatement. However, disclosure is still thin on delivered emissions cuts attributable to supplier actions. To raise its climate transition credibility, BASF should: (i) report annual **tonnes CO_2e reduced** from supplier PCF pathway agreements and low PCF feedstock/energy deals; (ii) add execution KPIs such as **% of raw-material spend covered by primary PCFs, % of spend under PCF reduction commitments, and abatement cost ranges** by material family; and (iii) maintain transparency on audit findings and enforcement outcomes (including environmental non-compliance). These additions would tighten the link between supplier engagement and measurable Scope 3.1 decarbonisation.

16 For more details please visit link

17 For more details visit link

Customers' Engagement

In 2024, downstream Scope 3 emissions represented 29% of BASF's total GHG footprint. BASF aims to evolve from reporting toward enabling customer-level decarbonisation via product transparency, low-emissions options, and circularity, in order to influence those emissions.

Enablers of Downstream Emissions Reduction

- **Product Carbon Footprints (PCFs)**: Since 2021, BASF has requested product carbon footprints (PCFs) from >1,900 suppliers (80% of raw-material GHG coverage) and validated PCFs for >1,700 raw materials (30% of raw-material emissions now covered by primary data). In 2024, BASF launched "phase 2" to negotiate PCF reduction pathways with suppliers and is integrating PCFs as a purchasing criterion.

- **TripleS Framework**: The company employs the Sustainable Solution Steering framework to categorise its product portfolio into five segments based on sustainability performance. Accordingly, Pioneer[18] and Contributor[19] products are those judged to provide positive sustainability contributions and BASF aims for >50% of "TripleS-relevant" sales to come from these segments by 2030. In 2024, these products accounted for 46.3% of BASF sales (2023: 41.4%).

- **Product Adaptations**: BASF continues its efforts to eliminate high-emission components (e.g. blowing agents in foams) and optimise formulations to reduce use-phase emissions. However, specific numbers on emissions mitigated by this change are not disclosed

- **Low-Carbon Products:** BASF offers "zero PCF" or reduced-carbon versions of select products (e.g. Ultramid® ZeroPCF, biomass-balance ethyl acrylate) by replacing fossil feedstocks with bio-based or recycled inputs and allocating them via mass balance. Still the magnitude of these changes in the overall emissions are not disclosed.

- **Circular Solutions**: Through Loop Solutions, BASF promotes the use of recycled or renewable content and supports more circular product lifecycles. End-of-life and disposal pathways are part of its scope for product redesign. By 2030, the company wants to achieve EUR 10 billion (around 15%) in sales with these solutions (EUR 5.7 billion in 2024), although emissions reduction links are not disclosed[20].

18 "Pioneer" products are defined by BASF as products with adequate profitability and a positive contribution to sustainability above the market standard.
19 "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.
20 Note that current targets (i.e., 15% of sales) only partially address the scale of feedstock transformation required. To align credibly with a Net Zero trajectory, BASF will need a more comprehensive strategy to phase in emission-neutral feedstocks, supported by clear near, and long-term targets, such as a roadmap toward 100% emission-neutral feedstocks by 2050.

BASF's downstream engagement is a sensible one with its transparency via PCFs, its offering of low-carbon variants, and its circular product ambitions to "enable customer transformation". However, its climate transition credibility/relevance is hindered by the following gaps:

1. Avoided emissions data (missing). The company does not report how many tonnes of downstream CO_2 are being avoided when customers adopt lower-PCF or redesigned products.

2. Penetration and uptake metrics (missing). Revenue share is tracked, but the share of volume or customer base shifting to low-carbon versions is not clear.

3. Life-cycle coverage (partial). BASF assesses PCFs from cradle-to-gate, which does not capture the emissions associated with use and disposal. Full life-cycle metrics would better reflect real downstream impact.

4. Quantitative downstream targets (missing). BASF has not set explicit reduction targets for Scope 3 use of products or disposal emissions tied to its engagement levers.

5. Case studies with verification (missing). Documented examples by major downstream customers showing measured emission reductions would strengthen credibility.

Ultimately, if BASF tackles all these gaps, its customer engagement impact on its climate transition would move from plausible to verifiable.

Influence on Public Policy

BASF publicly commits to climate neutrality goals and to align with the Paris Agreement. In its Climate Advocacy Review 2025[21], the company systematically assessed its trade association memberships and direct lobbying for alignment with five key climate-policy principles (i.e., Paris Agreement, climate neutrality, carbon pricing, renewable energy, energy efficiency). The company asserts that no material misalignments were found when assessing its memberships.

Nevertheless, external assessments argue that BASF supports climate goals but often advocates for flexible, cost-sensitive implementation pathways (e.g. LobbyMap[22]). Also, BASF is reported to have taken critical stances on particular climate and energy policies, including calls to exempt parts of the chemical value chain from CBAM or resist stricter hydrogen regulation, which seems to undercut its public climate narrative. Moreover, its involvement in industry associations at odds with the most ambitious climate goals (e.g., VCI, and Cefic – See Annex I) seems to contradict its Climate Advocacy Review.

So far, no formal escalation (e.g. withdrawal from an association) was disclosed for when misalignment between the company's targets and the trade associations interests arise.

21 For more details visit link.

22 For more details visit link.

MANAGEMENT ALIGNMENT

Sustainability Targets Oversight

BASF operates under a classical German two-tier governance model, with management (**Board of Executive Directors**) and supervision (**Supervisory Board**) clearly separated. Shareholders and employee representatives are equally represented on the Supervisory Board, ensuring internal checks and a balance of interests. The company emphasises that its corporate strategy, including sustainability goals, is embedded in the core responsibilities of the Executive Board.

The **Board of Executive Directors** is responsible for integrating environmental and social dimensions into corporate planning, investment decisions, and risk management, supported by a Risk Committee with biannual oversight.

The **Supervisory Board**, via its Audit Committee and Strategy Committee, reviews sustainability reporting, approves material strategic decisions (including divestitures and portfolio shifts), and oversees risk, internal control, and compliance systems related to health, safety, and environmental regulations.

Sustainability governance is coordinated through the Corporate Strategy & Sustainability unit (reporting to the Chairman of the Executive Board) and the Corporate Environmental Protection, Health, Safety & Quality function. Moreover, starting in January 2025 the former **Net Zero Accelerator will be dismantled**[23], and its function will be embedded across divisions and service units.

Overall, the governance structure appears robust in linking ESG and strategic oversight. However, the lack of a specialised board-level ESG or climate committee could constrain focused escalation and accountability for transition trade-offs.

23 BASF would argue this is a positive change towards the consolidation of its sustainability oversight and implementation; however, the case could be made to the contrary as embedding the accelerator's functions into different divisions and service units might detract from its relevance (as these divisions would already have a predetermined set of priorities and workload).

Management Compensation

The compensation of BASF's executive committee is detailed in its 2024 Compensation Report[24]. In addition to a fixed salary, the management receives variable compensation, which includes Short-Term Incentives (STI) and Long-Term Incentives (LTI).

Short-Term Incentives (STI)

The STI is an annual bonus mainly based on performance against financial goals, that also includes, to a lesser degree, strategic goals. The full structure and payout rules are shown in **Figure 7**.

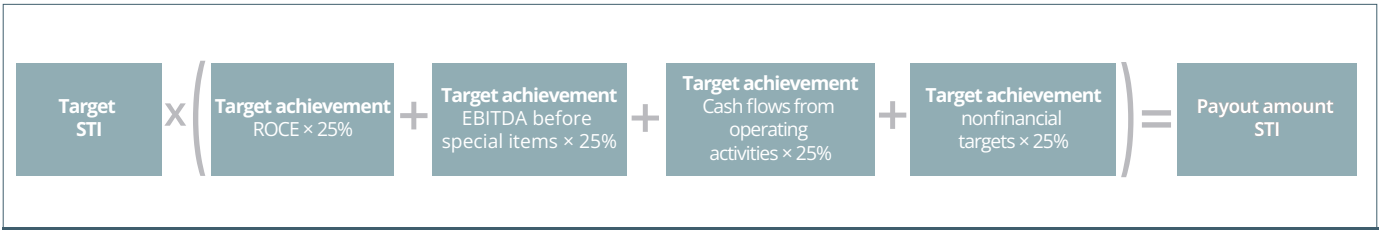

Figure 7: *BASF 2024 STI - Payout Amount. Source: BASF Compensation Report 2024. *The payout is limited to 200% of the target amount. The STI is capped at EUR 2 million for a member of the Board. The maximum amount for the Chair of the Board of Executive Directors is twice this value (i.e., EUR 4 million), and 1.33 times this value for the Vice Chair.*

In 2024, non-financial targets accounted for 25% of STI weighting, equally split among: (1) employee engagement, (2) occupational and process safety, and (3) progress on strategic projects (e.g. Zhanjiang investment, Wintershall Dea transaction, cost improvements at Ludwigshafen). Since sustainability or direct climate KPIs are not included among these targets, we conclude that the STI does not have an explicit link to climate transition targets.

24 For the full report visit link.

Long-Term Incentives (LTI)

The LTI is designed to reward executives for meeting strategic goals over a four-year period. It links performance to how well the company delivers on growth, profitability, and sustainability, and also considers total shareholder return (share price plus dividends). Payouts are capped at 200 % of the target amount. A full breakdown is presented in Figure 8.

Figure 8: *BASF 2024 LTI - Payout Amount. Source: BASF Compensation Report 2024.*

One component of Strategic target 3: sustainability is to reduce operating CO_2 emissions by 25% by 2030 versus 2018 (baseline 21.9 $MTCO_2e$). Each year, there is a target "corridor" (upper and lower bounds) around the midpoint. If emissions fall more than 2 MT below the midpoint, the performance factor is at its maximum (200%); if emissions exceed the midpoint by more than 2 MT, the performance factor is zero. Emissions within the corridor are scored proportionally (interpolation). See Table 1 for more details.

Table 1: *BASF 2024 LTI - Annual Strategic Target Corridor. Source: BASF Compensation Report 2024.*

	Target corridor	2024	2025	2026	2027
Annual target corridor	**Upper limit**	19.7	19.2	18.7	18.2
in MIt CO_2e	**Lower limit**	18.7	18.2	17.7	17.2

By embedding sustainability metrics into its incentives, BASF ensures to some degree that climate objectives are not peripheral to executives' strategy. However, there are important limitations. First, Scope 3 emissions, which constitute the majority of BASF's footprint, are not included in the incentive scheme. Second, the STI misses an explicit link to climate transition targets, leaving the incentives only for the long term. Third, transparency remains limited, i.e., public disclosures do not fully specify how weightings shift under different performance scenarios or how trade-offs between financial and ESG goals are calibrated.

Risk Analysis

FINANCIAL IMPACT

BASF faces material climate risks and opportunities that could affect both its operations and financial outlook. These could be categorised into **transition drivers** i.e., risks and opportunities from regulatory, policy or market shifts (e.g. carbon pricing, emissions legislation) and **physical drivers** stemming from climate change impacts on sites and logistics (whether BASF's own operations or those of its suppliers and customers). BASF also mentions the potential upside linked to growing demand for lower-emissions and circular products.

Transition Drivers

BASF could face significant policy / regulatory risks from tightening carbon regimes and evolving climate legislation. The European Union's Emissions Trading System (ETS) remains central: many of BASF's Scope 1 and 2 emissions fall under the ETS, meaning changes to allowance allocations, carbon prices, or the advent of border adjustment mechanisms can materially affect costs. Under more aggressive carbon pricing or stricter regulation, BASF could incur hundreds of millions of euros in additional costs. However, the company does not disclose an approximate number for these potential costs beyond 2024[25].

Beyond the ETS, BASF is also exposed to risks from shifting energy legislation, carbon taxes, emissions limits in jurisdictions outside Europe, or regulatory delays in permitting renewable energy, CO_2 infrastructure, or new product approvals. These risks could constrain BASF's ability to deploy low-emissions technology at scale or undermine the economic case for transition investments.

At the same time, BASF sees market risks and opportunities tied to customer demand dynamics. The shift toward electrification, higher standards for emissions in customer industries, and greater willingness to pay for more sustainable materials would create opportunities in segments such as battery materials, insulation, catalysts, or bio-based intermediates. Conversely, failure to transition its production and feedstock footprint at the speed of market demand and peers could see BASF lag in the clean-technology learning curve, lose market share and ultimately face obsolescence risk.

Physical Impact Drivers

Climate change presents location-specific physical risks, especially for large sites reliant on stable infrastructure, cooling water, transport routes, or raw material supply. BASF states that it assesses risks over a 30-year horizon using scenario data from the IPCC and external partners. According to the company, facilities are evaluated for exposure to heat, drought, flooding, extreme precipitation, water stress, and other climate hazards. Nevertheless, these evaluations are not disclosed by the company on a monetary basis.

Examples of physical hazards include disruptions in river transport or cooling water scarcity that could impair operations or logistics; a vulnerability already observed during historic low-water events in the Rhine region[26].

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25 In its 2024 CDP response referencing the 2023 reporting year BASF estimates exposure up to EUR 313 million per year if free allowances are reduced to around 1 million and EU carbon prices increase to EUR 125 per tonne; however no quantitative disclosures are made publicly available after 2023.

26 For more details see - Europe's Most Important Shipping River Is Running Dry | 2019-01-22 | SupplyChainBrain

RISK MANAGEMENT

Transition Risk Management

To mitigate the regulatory risks, the company presents the following initiatives:

- **Internal carbon pricing & scenario modelling**: BASF uses shadow CO_2 prices (up to EUR 340 per tonne depending on region and scenario) in its investment appraisals, embedding climate costs into capital decisions.
- **Decarbonisation investments**: The company is funding climate-smart process technologies (e.g. electrically heated cracker furnaces, low-emission steam generation), hydrogen electrolysis, and partnerships for renewable power and carbon capture.
- **Renewable energy procurement**: BASF signs long-term power purchase agreements (PPAs), invests in wind farms (e.g. Hollandse Kust Zuid) and offshore partnerships (e.g. in southern China for Zhanjiang site).
- **Efficiency & operational controls**: Energy management systems (ISO 50001) and continual operational excellence projects (e.g. >450 energy/resource optimization actions in 2024) reduce baseline energy demand.
- **Strategic planning & phasing**: BASF aligns capital deployment and mitigation pathways to a linear reduction curve from 2018 to 2030, prioritising lower-cost abatement options, and sequences major technology scaling post-2030 to balance risk and feasibility.

Market Impact Management

To take advantage of the potential upside linked to the growing demand for lower-emissions and circular products, BASF highlights the following initiatives:

- **Targeted capacity build out**: Instead of broad across-the-board investment, BASF is focusing resources on markets with higher customer demand or willingness to pay for lower-carbon solutions.

- **R&D portfolio steering**: The TripleS method is integrated into R&D and product development decisions to favour innovations that contribute positively to climate, resource efficiency or circularity.

- **Strategic partnerships and scaling alliances**: BASF collaborates along the value chain (with customers, energy providers, technology partners) to de-risk technology scale and share burden of infrastructure deployment.

- **Offset / residual emissions planning**: While BASF focuses first on in-house abatement, it is preparing an offset portfolio (nature-based or technical removal projects) for residual emissions not abated by 2050.

Physical Impact Management

To enhance resilience against physical risks, BASF disclosed the following measures:

- **Site resilience planning**: Flagship production sites are assessed geospatially for climate risks (heat, drought, flooding). Where thresholds are crossed, adaptation or closure strategies are already flagged for up to 6 % of plants.
- **Logistics & transport flexibility**: BASF has invested in low-water shipping options and alternative logistics routes in key river transport corridors.
- **Cooling and thermal systems upgrades**: The company is expanding re-cooling capacity and refining cooling network controls to mitigate high water temperature or low flows.
- **Early-warning & monitoring systems**: BASF has deployed monitoring for river water levels (e.g. Rhine) to forecast supply chain risk and adjust operations proactively.

Overall, BASF shows some effort in mapping climate risks and opportunities, with initiatives in mitigation, resilience, and low-emission product development. Nonetheless, key limitations remain:

- Much of the risk analysis is **qualitative** rather than financial.
- **Downstream risks** (product obsolescence, regulations on use or disposal) are less developed in the disclosures compared to upstream and operational risks.
- The **scenario framework** lacks full transparency on core assumptions (carbon price paths, technology adoption curves, scenario weights).
- **Interdependencies**, i.e. how policy/transition pressures may worsen physical risks (or vice versa) are noted but not explicitly modelled.
- **Speed mismatch** in rolling out resilience measures across all sites, leaves interim vulnerabilities.

Given these gaps, BASF's climate transition plan is credible in parts, especially for its own operations and selected investment pathways, but still lacks full clarity and backing in areas critical for 1.5°C alignment. For stronger confidence, the company should quantify more, improve downstream modelling, disclose scenario assumptions, and close the implementation gaps swiftly.

Strategic Assessment

CAPITAL ALIGNMENT

In 2025, BASF plans capital expenditures (capex) of approximately **EUR 5.0 billion** (excluding acquisitions, IT, restoration, and lease assets) vs EUR 6 billion in 2024[27]. Over the period 2025-2028, total capex is projected at **EUR 16.2 billion**, of which the **Zhanjiang Verbund site** alone is allocated about **EUR 3.0 billion**. This trajectory marks a modest reduction relative to the preceding 2024–2027 plan (EUR 19.5 billion). See Figures 9 and 10 for a breakdown per business segment and geography.

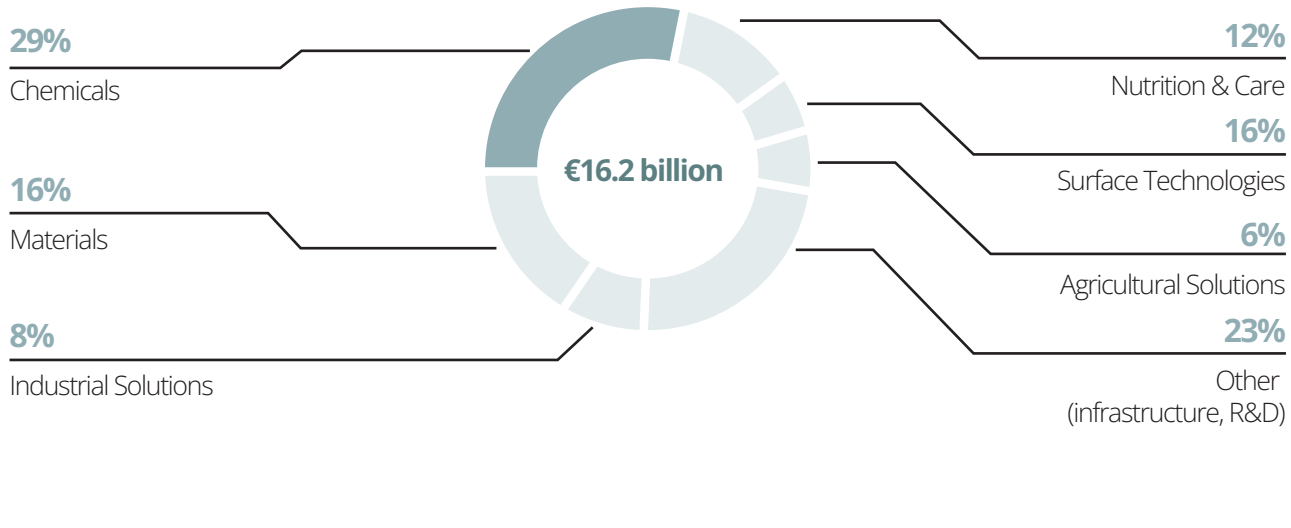

Figure 9: *BASF Capex by Segment 2025-2028. Source: Link*

27 The reduction by EUR 1 billion in 2025 is primarily due to lower investment requirements for the Zhanjiang Verbund site after the peak spend in 2024. These figures include additions to property, plant, and equipment, excluding acquisitions and other non-core capex.

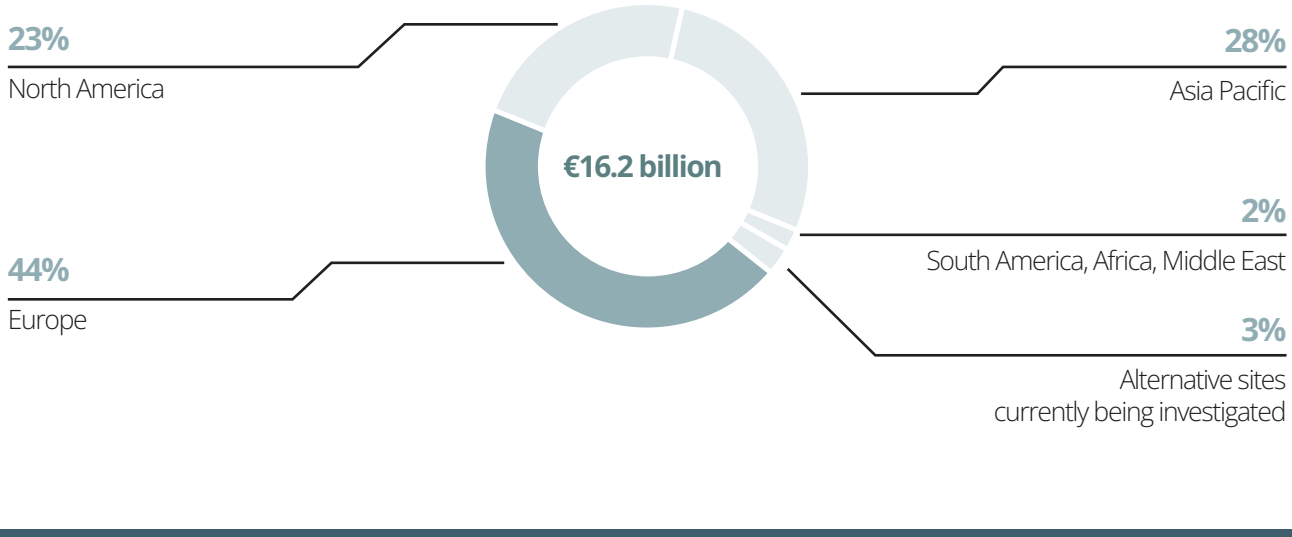

Figure 10: *BASF Capex by Segment 2025-2028. Source: Link*

Key projects in the pipeline include capacity expansion in Geismar (MDI plants), modernisation of facilities in Ludwigshafen, and the full buildout of Zhanjiang as an integrated Verbund. In 2025, according to the company's statements, BASF expects to maintain operational discipline by reducing capital intensity in subsequent years.

To embed climate risk into capital decisions, BASF stated that it employs **internal (shadow) CO_2 prices** differentiated by region. According to the company these are based on three forward-looking scenarios developed with external partners that stretch to 2050. In extreme cases, the internal cost per ton can reach **EUR 340 per tonne of CO_2e**. However, the company does not clarify how these considerations affected its investment decisions.

Climate Transition Investment

BASF plans to allocate, on average, EUR 600 million per year in transformation-related spending from 2025 to 2028, as highlighted in Figure 11. Of this, approximately EUR 225 million per year is earmarked for direct capex in new technologies and decarbonisation efforts, and another EUR 375 million per year for equity participations, supplier financing, and offtake agreements supporting the climate transition. In addition, BASF expects to significantly increase climate-aligned capex from 2026 onwards, up to EUR 2–3 billion total for 2026–2030, to further scale new low-emission technologies and renewable power deployment. However, this second set of climate-aligned investments is unclear on the breakdown between pure capex and other "transformation-related" spending (such as equity participations, supplier financing, or offtake agreements) requiring further clarification for like-for-like benchmarking.

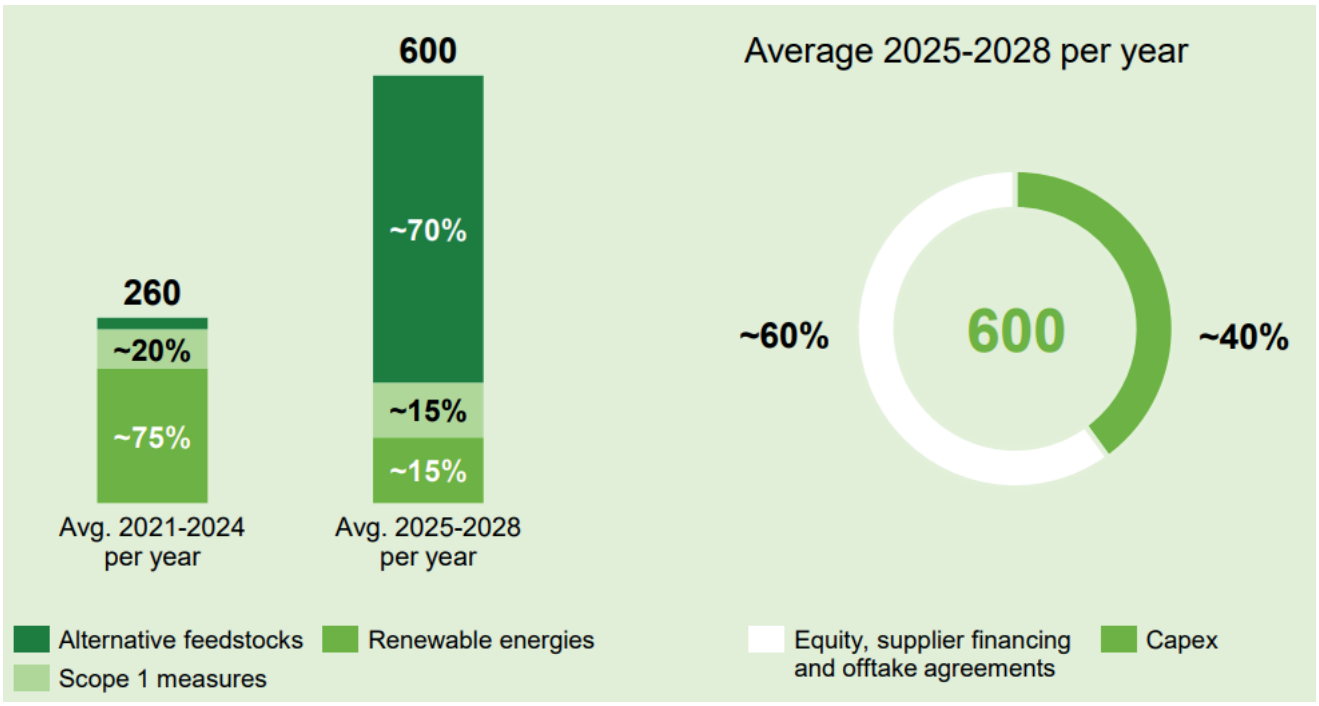

Figure 11: *BASF Transformation-related spending (EUR Million). Source: BASF SRI Story*

Key Commitments:

- From 2025 to 2028, annual transformation-related spending will be EUR 600 million, totalling EUR 2.4 billion for the 4-year period.
- Investments target Scope 1 emission measures (EUR 300 million over 2025–2028) and renewable energy (EUR 250 million over 2025–2028).
- BASF is also exploring major projects such as water electrolysis for green hydrogen, CCS (carbon capture and storage), and expanding the use of alternative and renewable feedstocks.

While this seems to be a considerable effort on BASF's part, third parties like Systemiq[28] see chemical sector investment need at approximately USD 100 billion per annum (or **EUR 97 billion**[29]). BASF has approximately 1.1% share of global chemicals market which implies a proportional share of the sector's transition capex need of EUR 1bn for BASF, substantially more than the EUR 225 million indicated. Thus, BASF may need to scale up its transition capex substantially.

Taxonomy-Eligible and Taxonomy-Aligned Financials[31]

BASF's 2024 disclosures show that **11.7% of its sales** were **taxonomy-eligible** (12.2% in 2023), mainly from primary plastics and organic basic chemicals, but only **1.2% of sales** (1.6% in 2023) met full **taxonomy-aligned** criteria (primarily battery manufacture).

On the investment side, in 2024, **21.4% of total capex** (23.1% in 2023) was eligible under the taxonomy, yet **only 3.7% qualified as aligned** (5.2% in 2023). A large portion of the discrepancy stems from failing to meet strict emission thresholds, limitations on DNSH (Do No Significant Harm) tests, and challenges in applying renewable resource criteria, especially for plastics.

Notably, BASF judged its Zhanjiang steam cracker ineligible under alignment standards, even though BASF claims it contributes to lower emissions under its future energy strategy, because it cannot yet satisfy thresholds for feedstock emissions or jurisdiction-specific ETS metrics. BASF also invested in an electrolysis (hydrogen) project at Ludwigshafen in 2024, which meets taxonomy-alignment criteria under the delegated regulation, and is reported as aligned capex.

Overall, BASF's transition investment approach seems sensible featuring capital deployments into transformation engines (e.g., Zhanjiang, hydrogen, process modernisation) while using internal carbon pricing to bias toward low-emission options. Yet, challenges persist. The low climate transition capex compared to industry needs and the low ratio of taxonomy-aligned capital could hinder the scale of transformation required. Furthermore, without **clear abatement projections** (e.g. quantifying Mt CO_2 avoidance from Zhanjiang or hydrogen projects), investors must rely on inference rather than disclosed impact.

To improve, BASF should publish **forward-alignment forecasts** for its capex pipeline and tie major projects to **abatement ranges**.

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28 For more details visit link

29 At a 2024 closing rate of USD/EUR = 0.9662

30 The chemical sector market size is estimated at EUR 6.1 trillion according to [inset source] and BASF sales in 2024 were EUR 65.3 billion

31 For context, Taxonomy-eligible refers to an economic activity that is described in the EU Taxonomy and has the potential to contribute to its environmental objectives, but hasn't yet met the stringent technical criteria. In contrast, Taxonomy-aligned means the activity not only falls under the Taxonomy's scope but also meets all the required technical screening criteria, the "do no significant harm" (DNSH) principle for other environmental objectives, and the minimum social safeguards. For more details see link.

TRANSITION APPRAISAL

This assessment reviewed BASF's climate transition strategy across emissions performance, policy and engagement, governance, risk management, and capital allocation. The company has strengthened its disclosures compared with last year and continues to commit to reduce its carbon footprint. However, several structural gaps remain that constrain confidence in full alignment with the 1.5°C pathway.

Emissions progress: BASF's operational emissions (Scope 1 and 2) were 17.0 $MTCO_2e$ in 2024, almost unchanged from 2023, with renewable electricity representing 26% of total consumption. The company maintains its target of a 25% reduction by 2030 (relative to 2018), implying a modest 9% reduction from 2024 levels, and now provides a clearer breakdown of the levers.

Decarbonisation actions: Some delivery evidence is beginning to emerge: in 2024, more than 450 efficiency measures reduced emissions by roughly 200 $KTCO_2e$, funding was secured for the world's largest industrial heat pump at Ludwigshafen (expected to cut up to 100 KTCO2e per year from 2027), and a 54 MW electrolyser entered operation in March 2025 with the potential to avoid around 72 $KTCO_2e$ annually.

Energy sourcing also looks more robust. Hollandse Kust Zuid, one of the world's largest offshore wind farms, became fully operational in 2024, while BASF signed a 25-year agreement with SPIC to supply 100% renewable power to Zhanjiang from 2025 and advanced a joint venture with Mingyang for a 500 MW offshore wind project. These steps anchor the company's electrification-first strategy and help reduce exposure to carbon price volatility in Europe and China.

Despite these advances, several factors still limit confidence in full Paris alignment. Most critically, BASF has postponed the large-scale deployment of climate-smart technologies, such as e-crackers, methane pyrolysis, and power-to-heat until after 2030. Given the long investment cycles of the chemical sector, this delays significant abatement and risks locking in higher emissions if enabling infrastructure for renewable power and CO2 handling lags.

Supply-chain emissions: On the demand side, BASF's TripleS assessment shows that 46.3% of sales in 2024 came from "Sustainable-Future Solutions", and the company has set a EUR 10 billion sales target for circular "Loop Solutions" by 2030. This reflects a more market-led approach, prioritising projects where customers show willingness to pay for lower-carbon offerings. Progress is also visible upstream: the company continues to target a 15% cut in Scope 3.1 intensity by 2030, with intensity improving from 1.67 to 1.58 kg CO_2 per kg of raw materials in 2024. However, the volume growth effect in BASF's Scope 1 and 2 target would imply an absolute increase in Scope 3 emissions of circa 10% even if the intensity target was met.

Moreover, the Scope 3 target only covers upstream emissions. BASF's supplier engagement strategy has moved from data validation to negotiated reduction pathways, although battery-material feedstocks remain excluded from the target.

Transition investment: Capital allocation also signals a gap. In 2024, taxonomy-aligned activities accounted for just 1.2% of sales and 3.7% of capex. These low shares partly reflect methodology constraints but also underline the distance between BASF's current investment profile and EU-defined sustainable output. Moreover, the company is guiding for only EUR 225 million of direct climate transition capex (together with EUR 375 million of non-capex transition finance), a figure that appears low relative to sector benchmarks - BASF's implied proportional share could be closer to EUR 1 billion annually. The under-allocation raises questions over the sufficiency of resources committed to transition technologies.

Finally, there remains uncertainty around the Zhanjiang Verbund site. While it is expected to run fully on renewable electricity from 2025, its central steam cracker will only deliver deep reductions once electrification is scaled. Until then, feedstock use and process emissions will continue to weigh on the site's net impact.

Conclusion

BASF's pathway to 2030 is now better evidenced, supported by tangible actions in renewable sourcing, efficiency, and pilot-scale low-carbon technologies. The company's strategy of prioritising customer-driven demand for low-carbon solutions is pragmatic and underpinned by credible energy procurement. However, reliance on post-2030 technological deployment, weak Scope 3.1 targets with incomplete coverage, and modest transition capex commitments mean that BASF is not aligned with a 1.5°C pathway.

For this assessment to shift, BASF would need to accelerate electrification and process transformation before 2030, broaden Scope 3.1 targets to include battery feedstocks with material absolute reduction pathways by 2030 and beyond, and materially increase taxonomy-aligned capex tied to verifiable emissions reductions. If such proof points materialise, renewable integration at Zhanjiang, commissioning of industrial heat pumps and power-to-heat projects, and consistent delivery of supplier and operational efficiency abatement, then BASF assessment could move toward a well-below-2°C alignment.

At present, Planet Tracker concludes BASF is expected to align with a 2°C pathway by 2030[32].

32 Based on the data accessed by Planet Tracker until September 2025.

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.

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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.

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