Bayer AG (BAY)

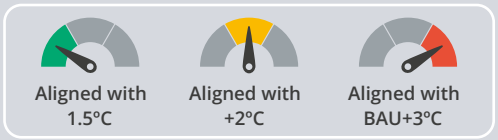
Climate Transition Analysis

Climate Action 100+ Focus Company

Overall Assessment

Planet Tracker: Bayer is projected to align with a 2°C warming scenario by 2030.

Bayer has set long-term climate targets to achieve Net Zero across its value chain by 2050, with interim goals for 2029. Between 2020 and 2024, the company reduced total GHG emissions by 9.2%, despite annual revenue growth of 3%. However, emissions trends have been inconsistent year-on-year, and key downstream categories, such as product use, remain excluded from Scope 3 disclosures, resulting in a likely underestimation of Bayer's climate footprint. While the company maintains a structured governance approach, its short-term remuneration framework lacks transparency on ESG weighting. Furthermore, Bayer has pledged EUR 500 million by 2029 for energy efficiency and renewable energy, yet this remains modest relative to overall capex. Moreover, no capital allocation is reported for Scope 3 mitigation efforts, despite their dominant share of emissions, and none of Bayer's reported capex is EU Taxonomy-aligned. Supplier and customer engagement frameworks are well-established but remain process-driven, with no quantified link to emissions reductions or Scope 3 targets. Bayer's policy engagement is proactive, yet select advocacy positions and ongoing membership in climate-misaligned industry associations raise questions about consistency. Given these factors, Planet Tracker assesses that Bayer's current trajectory is more consistent with a **2°C warming scenario** by 2030, rather than the 1.5°C pathway aligned with the Paris Agreement.



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.

Climate Alignment

- Bayer's reported footprint is dominated by Scope 3 emissions (75.3% in 2024), but it does not disclose key downstream Scope 3 emissions, so its total footprint and climate impact is understated.
- The company has met earlier Scope 3 targets and adopted new science-based goals, but these cover a narrower portion of emissions (i.e., only 68%); thus, alignment with a 1.5°C pathway remains uncertain without a full coverage and clearer abatement plans.

Policy and Governance

- Bayer has structured frameworks for supplier engagement and policy advocacy but lacks quantification of emissions outcomes. Continued alignment with trade associations that oppose strong climate policy weakens its credibility.
- Sustainability oversight is embedded at the board level, yet, short-term incentives lack detail, and long-term pay is capped at 250% of individual target amount, limiting the influence of climate performance on remuneration.

Risk Analysis

- Bayer identifies key transition and physical risks but provides no financial quantification of exposure, costs, or capital required for adaptation and mitigation.
- Climate risks are integrated into enterprise risk processes, but disclosures remain qualitative. No figures are provided for resilience investments or physical risk preparedness, limiting investor visibility on capital at risk.

Strategy Assessment

- The EUR 500 million pledged to operational decarbonisation by 2029 is modest relative to total capex (i.e., 1.5% on an annual basis), and no Scope 3 mitigation investments are disclosed.
- Despite reporting 16.7% Taxonomy-eligible capex, none is Taxonomy-aligned. Lack of investment transparency across initiatives suggests misaligned capital allocation (i.e., not consistent with 1.5°C).

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Company Overview

Bayer AG (BAY) is a global chemical enterprise active across healthcare and agricultural life sciences. Over the five-year period from 2020 to 2024, the company generated approximately 48% of its revenue from its Crop Science division, 40% from Pharmaceuticals, and 12% from Consumer Health (see Figure 1).

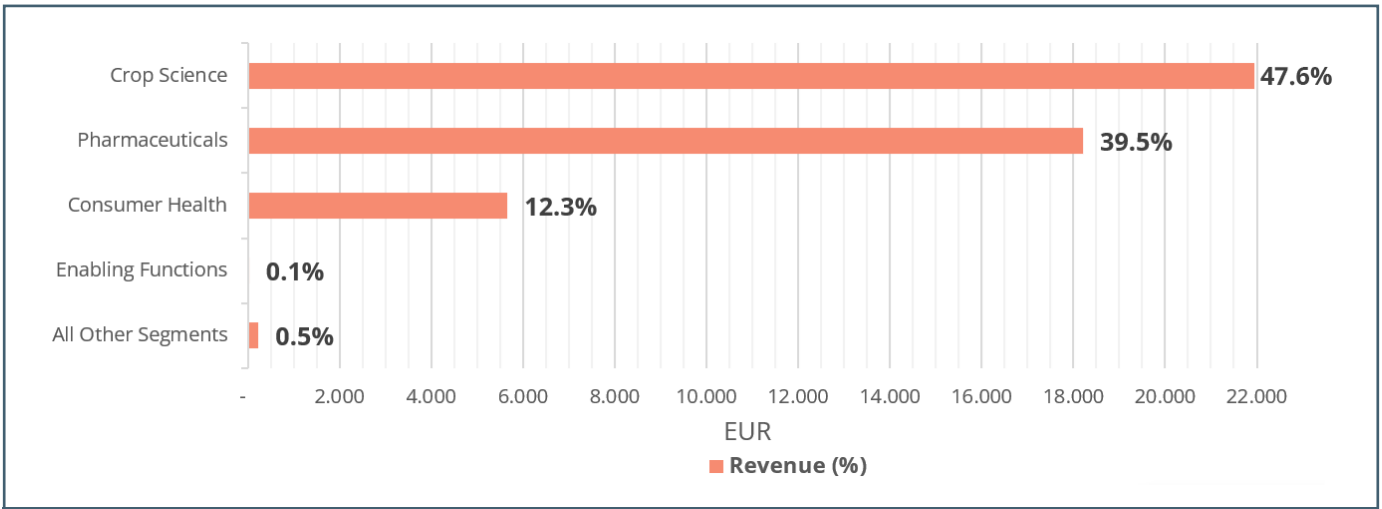

Figure 1: Revenue (%) *- Breakdown by Business Segments (5Y Avg.).*
Source: Bayer Annual Reports 2020-2024 & Planet Tracker's calculations.

Pharmaceuticals was the most profitable segment during this period, with an operating profit margin of 22%, followed by Consumer Health at 17% (Figure 2). In contrast, Crop Science recorded an operating loss of 20%. Even when looking at its EBIT before special items (approximately EUR 2.6 billion from 2020 to 2024, on average), Crop Science is behind Pharma and Consumer Health (in profitability terms) with a 12% operating profit margin.

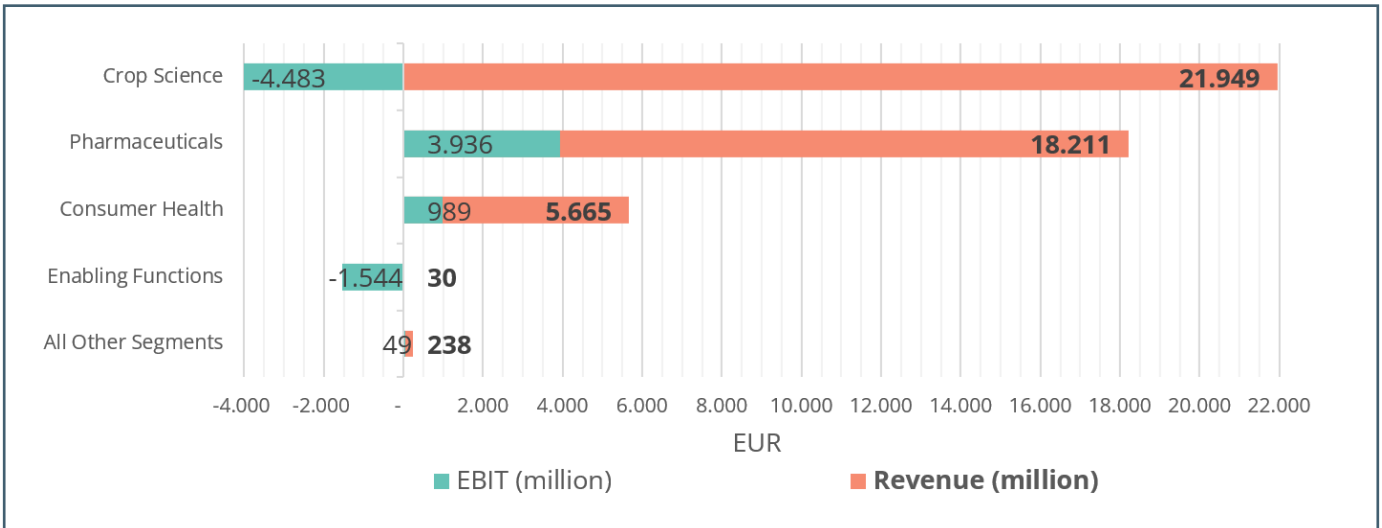

Figure 2: *EBIT (million) &* ***Revenue (million)*** *- Breakdown by Business Segments (5Y Avg.).*
Source: Bayer Annual Reports 2020-2024 & Planet Tracker's calculations.

Regionally, Bayer's revenue is primarily concentrated in North America (34%), and the EMEA (30%), followed by Asia-Pacific (19%) and Latin America (17%), as shown in Figure 3. At a country level, the top five markets account for roughly 55% of total revenue, with the United States representing the single largest source (Figure 4).

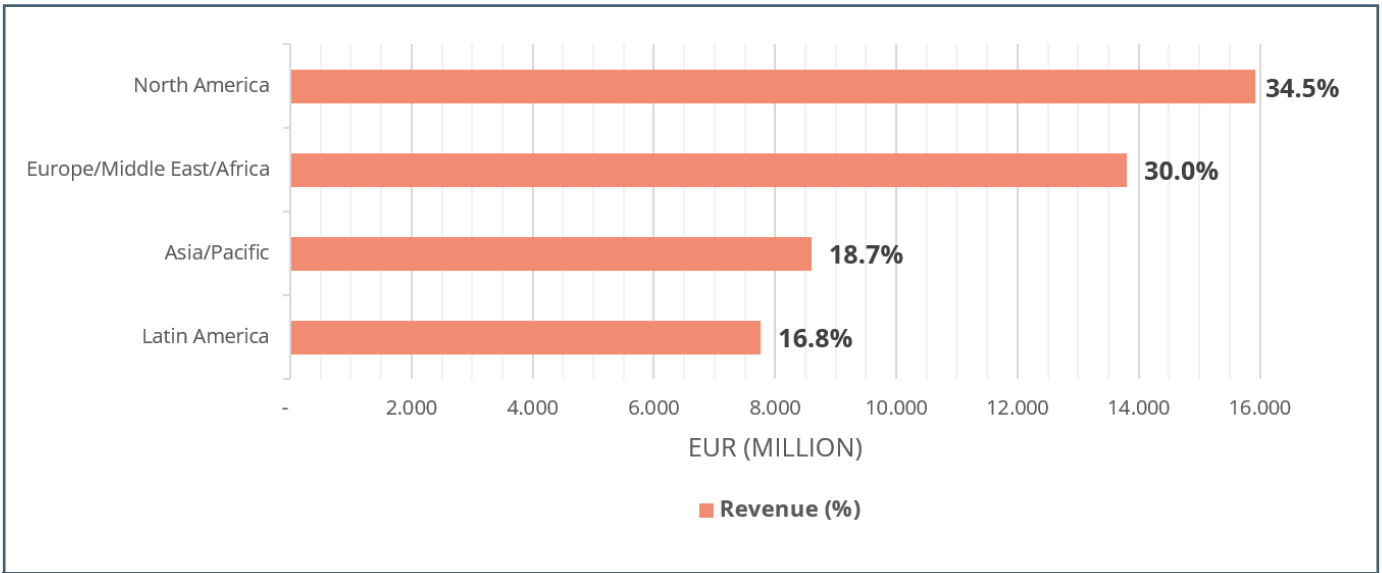

Figure 3: Revenue (%) *-Breakdown by Geographic Areas (5Y Avg.).*
Source: Bayer Annual Reports 2020-2024 & Planet Tracker's calculations.

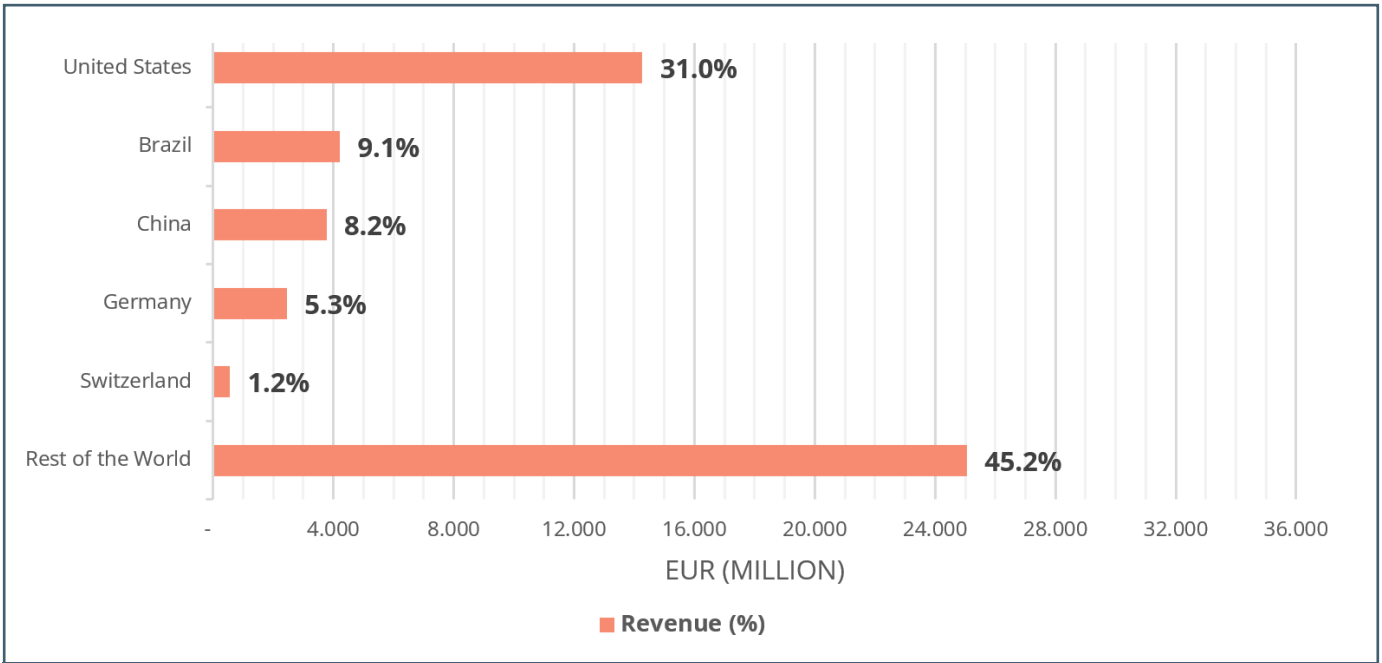

Figure 4: *Revenue (%) - Breakdown by Countries (5Y Avg.).*
Source: Bayer Annual Reports 2019-2023 & Planet Tracker's calculations

In summary, Bayer's climate transition exposure is primarily linked to its positioning in the healthcare and agri-science value chains, with a high exposure to the U.S. market.

Climate Alignment

EMISSIONS INVENTORY

Bayer's latest greenhouse gas (GHG) disclosure[1] reports a total footprint of **11,340 kilotonnes of CO_2 equivalent ($KTCO_2e$)**[2]. In 2024, Scope 1 emissions accounted for 16.6% of this total, while Scope 2 (market-based) made up 9.2%. The majority, 75.3%, stemmed from Scope 3 emissions.

Whitin Bayer's operating emissions (Scopes 1 and 2), in 2024, 84% were generated by the Crop Science segment, a trend consistent over the past five years (see Table 1).

Table 1: *Bayer's Operating GHG Emissions Breakdown; Source: Bayer Annual Report 2024 & Planet Tracker Calculations.*

Scope & Segment	2020	2021	2022	2023	2024
Scope 1 Emissions	2,010	1,930	1,910	1,890	1,891
of which Crop Science	82%	83%	83%	82%	83%
of which Pharmaceuticals	9%	9%	9%	9%	9%
of which Consumer Health	1%	1%	1%	1%	1%
of which Others*	8%	7%	7%	8%	7%
Scope 2 (Market-based) Emissions	1,570	1,240	1,120	1,110	1,111
of which Crop Science	88%	85%	83%	85%	86%
of which Pharmaceuticals	8%	10%	10%	9%	7%
of which Consumer Health	4%	4%	4%	5%	4%
of which Others*	0%	0%	3%	2%	3%

* These include greenhouse gas emissions from the vehicle fleet and emissions caused by the enabling functions.

Within Scope 3, **upstream activities**[3] were the dominant source, representing **69.2%** of Bayer's total footprint. Meanwhile, reported **downstream emissions**[4] accounted for just **6.1%**. However, Bayer does not disclose the downstream emissions coming from the "Use of Sold Products" (in other words the emissions from using/consuming Bayer's products). This would be a material omission given that, for example, over 41% of Incitec Pivot's[5] 2022 emissions came from this category. Hence, Bayer is underestimating its full climate impact. Among upstream sources, **purchased goods and services** are the largest single contributor, representing **51.8%** of Bayer's total GHG footprint (see Figure 5).

1 As presented in Bayer's 2024 Annual Report.
2 Converted to $KTCO_2e$ from $MTCO_2e$.
3 Scope 3 upstream emissions include: (1) Purchased Goods emissions; (2) Processing - including the emissions from "Fuel and Energy Activities" not covered in Scope 1 and 2; (3) Transportation - covering emissions from "Transport & Distribution" and "Business Travel".
4 Scope 3 downstream emissions include the emissions from "Waste from Operations", "Employees Commuting", and the "End-of-life of Sold Products" as an aggregate since the company does not distinguish between the two when disclosing its Scope 3 emissions.
5 Referenced here as a peer of Bayer, in the chemical sector.

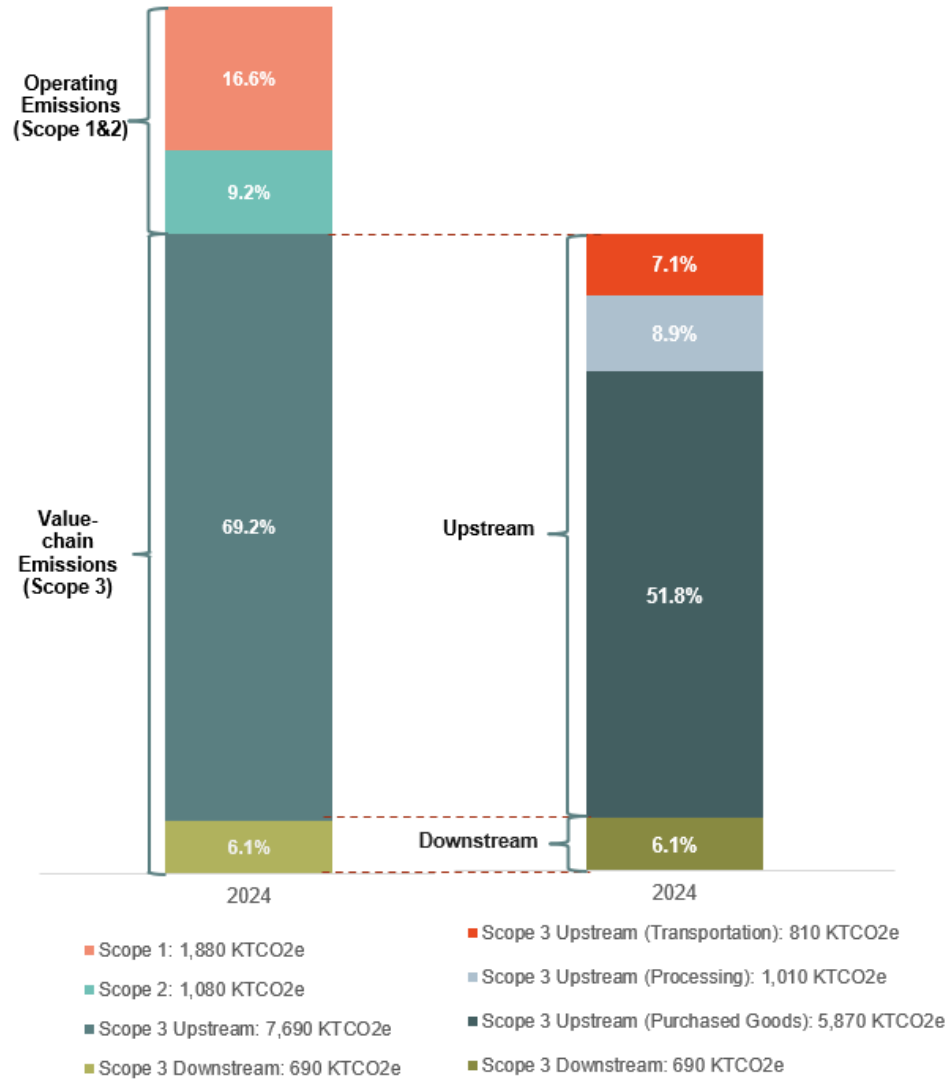

Figure 5: *Value Chain GHG Emissions (2024) - Percentage Breakdown by Scope. Source: Bayer's Annual Report 2024 & Planet Tracker's Calculations*

EXTERNALITIES: TRENDS AND TARGETS

Bayer reduced its total GHG emissions by 9.2%, from 12,490 KTCO$_2$e in 2020 to 11,340 KTCO$_2$e in 2024 (see Figure 6). This represents an average annual decline of 2.4%, during a period in which company revenues grew by approximately 3% per year, and its sales volume by over 2%. This indicates that Bayer achieved an absolute emissions reduction despite business expansion. Although the mitigation has not been linear over the last five years, the company shows a commendable reduction from 2022 to 2024.

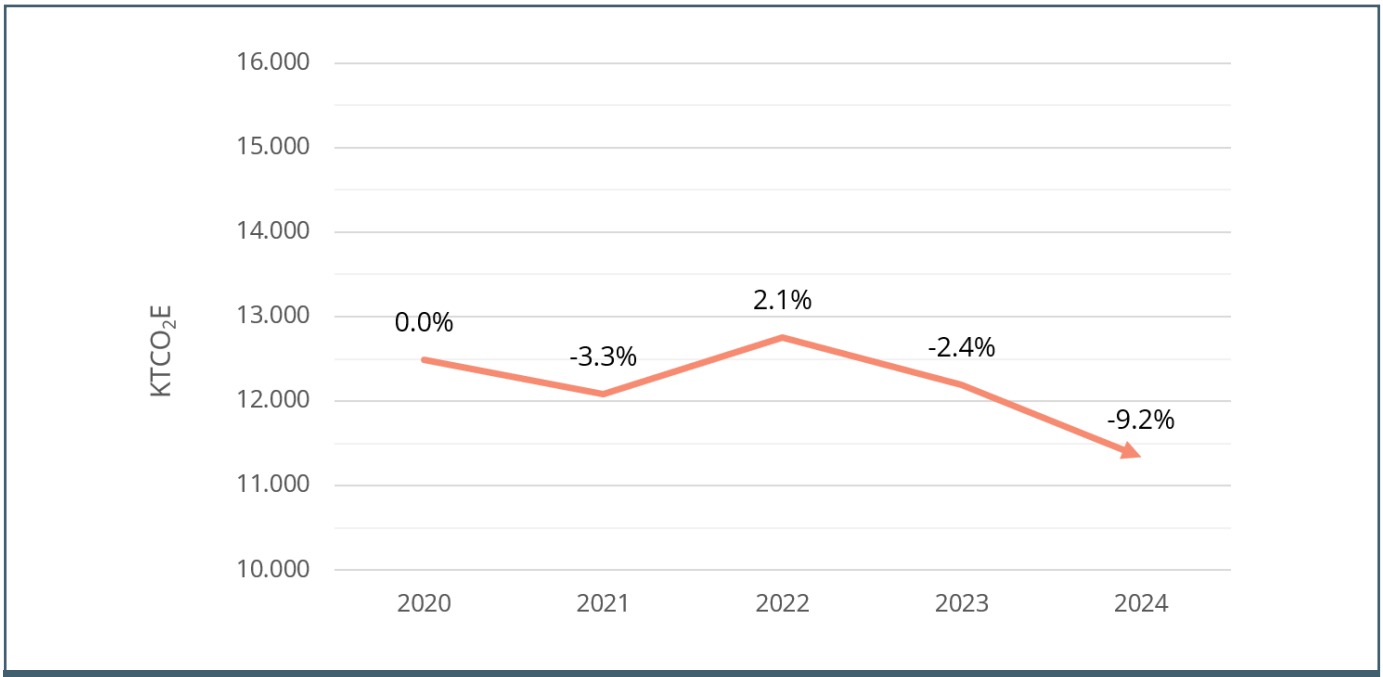

Figure 6: *Bayer's GHG Emissions 5Y Historic Evolution as % change since 2020. Source: Bayer's Annual Report 2024 & Planet Tracker's Calculations.*

To estimate potential progress towards 2030, we applied a high-level extrapolation model based on Bayer's 2020–2024 performance, assuming the same annual emissions reduction rate and a continued 3% revenue growth, based on its historic performance. Under this scenario, **Bayer's total emissions are projected to fall by 12%, reaching 10,744 KTCO$_2$e by 2030**. Disaggregated, this would imply a 10% reduction in Scope 1, 43% in Scope 2, a 5% decline in upstream Scope 3, and a 40% drop in (partially reported) downstream Scope 3 emissions (see Figure 7).

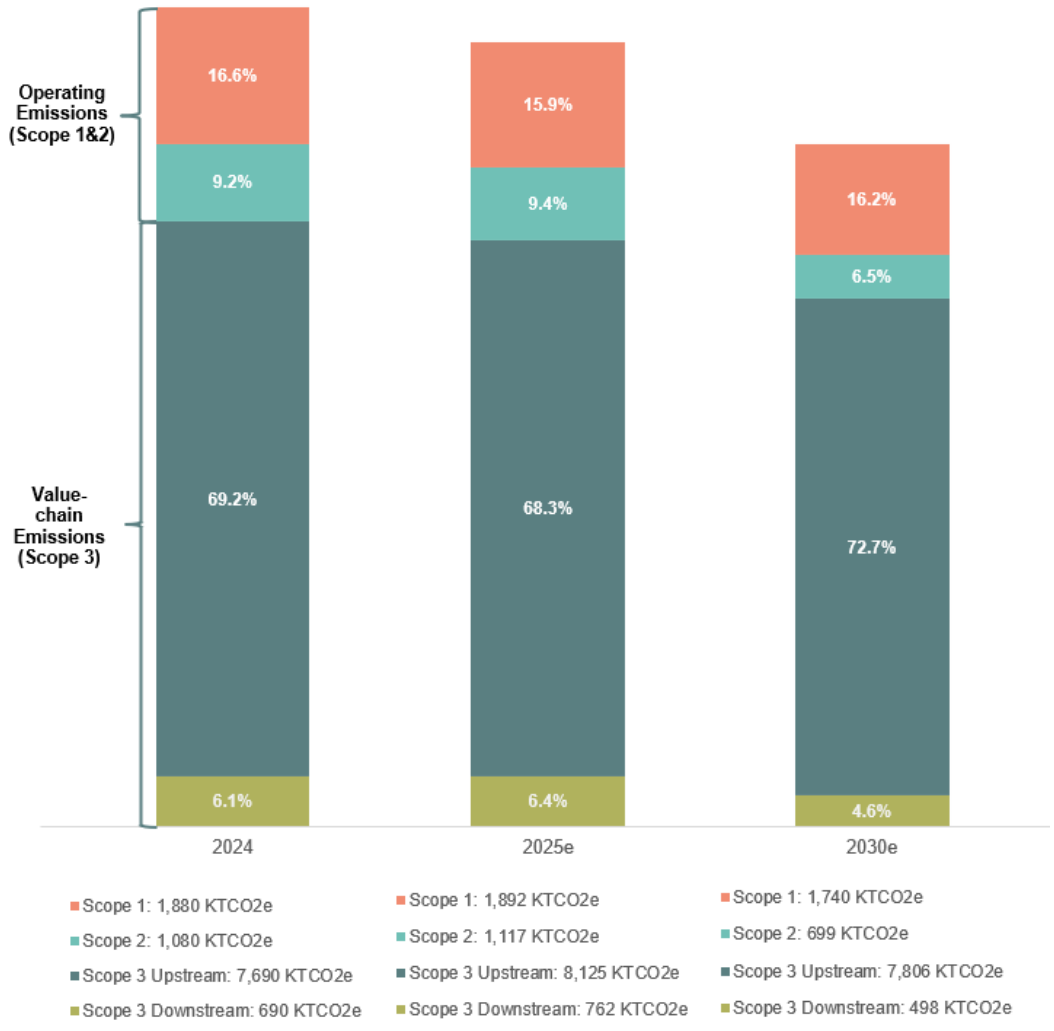

Figure 7: *Value Chain GHG Emissions (2025e & 2030e) – Percentage Breakdown by Scope. Source: Bayer's Annual Report 2024 & Planet Tracker's Calculations.*

In June 2025, Bayer published an updated **Transition and Transformation Plan**[6], setting revised science-based targets. These include a **42% reduction in Scope 1 and 2 emissions by 2029**, and a **25% reduction in selected upstream Scope 3 emissions**, both relative to a 2019 baseline.

For context, in 2019, Bayer reported Scope 1 emissions of 2,080 $KTCO_2e$ Scope 2 of 1,680 $KTCO_2e$, and upstream Scope 3 emissions of 8,820 $KTCO_2e$. Previously, by 2024, the company had reduced Scope 1 and 2 emissions to 2,960 $KTCO_2e$, and upstream Scope 3 to 7,690 $KTCO_2e$, a decline of 21.3% and 12.8%, respectively. This indicates that Bayer has met its **previous upstream Scope 3 reduction target** of **12.3% by 2029**, which had **covered 88% of its total disclosed Scope 3 emissions**. The **new target**, however, applies to a narrower boundary, **just 68% of Scope 3 emissions**, focused on land-related emissions and removals associated with bioenergy feedstocks.

Looking further ahead, Bayer has committed to a **90% absolute reduction in Scope 1, 2, and 3 emissions by 2050**, again from a 2019 baseline. However, the same limited Scope 3 boundary applies, excluding categories such as product use, transportation, and capital goods.

In principle, Bayer's stated targets could be consistent with a "**well-below 2°C**" pathway. Yet due to limited downstream disclosures and the selective Scope 3 boundary, this alignment cannot be confirmed without further analysis of Bayer's forward-looking initiatives and implementation plans, as discussed in the sections that follow.

6 For more details see link.

Policy and Governance

ENGAGEMENT AND INFLUENCE

Supplier Engagement

Bayer is participating in external collaborative platforms, such as Together for Sustainability (TfS), the Pharmaceutical Supply Chain Initiative (PSCI), and the Partnership for Carbon Transparency (PACT), aiming, according to the company, to support industry alignment on sustainability expectations and data-sharing frameworks.

In addition, in line with previous years, Bayer uses a structured programme to support its supply chain decarbonisation, titled the **Scope 3 Decarbonization Accelerator**. Based on the company's disclosure, this initiative focuses on four key pillars aimed at enabling suppliers to decarbonise, prioritising sourcing from lower-carbon suppliers, enhancing data quality and reporting processes, and fostering engagement across the value chain.

For more detail, the four-step process across its supply chain is described as follows:

1. **Supplier Awareness**

   Bayer outlines its expectations in a Supplier Code of Conduct, which references international frameworks (UN Global Compact, ILO[7] core conventions) and includes legal requirements under the German Supply Chain Due Diligence Act. This Code is embedded into contracting systems, supported by guidance materials, and supplemented by grievance mechanisms.

2. **Supplier Nomination**

   Strategically important or high-risk suppliers (based on a sustainability risk framework developed with Business for Social Responsibility) are flagged for evaluation. In 2024, Bayer identified 157 strategic suppliers (representing 33% of procurement expenditure) and 326 high-risk suppliers (representing 11% of procurement expenditure) for further review, primarily based on spend thresholds and exposure to environmental and social risks.

3. **Supplier Performance Evaluation**

   Bayer relies heavily on EcoVadis assessments and external audits (via PSCI and TfS frameworks) to evaluate supplier performance. In 2024, 1,455 suppliers were either assessed or audited (vs 1,118 in 2023), covering approximately 55% of procurement spend. Based on EcoVadis assessments, in 2024, the greatest need for improvement continued to be in sustainable procurement with 36% of suppliers (vs 44% in 2023) underperforming (i.e., scoring less than 45 points on the EcoVadis scale – see Figure 8 for more details).

7 International Labour Organization

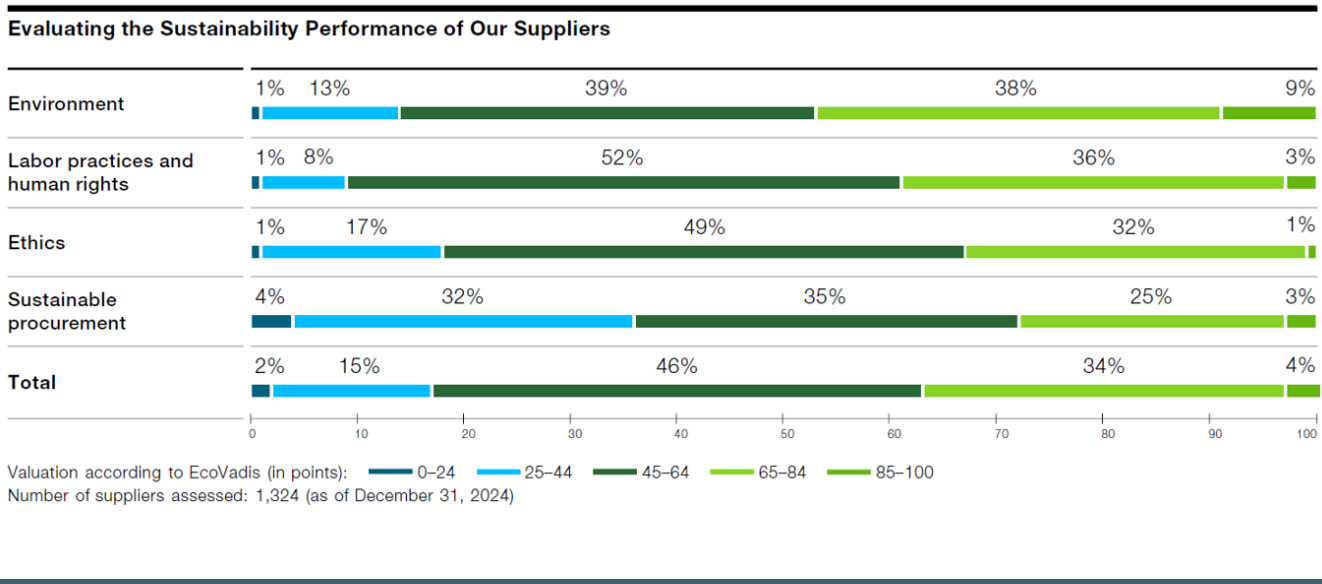

Figure 8: *EcoVadis - Evaluating the Sustainability Performance of Bayer's Suppliers. Source: Bayer Impact Report 2024*

4. Supplier Development and Follow-Up

Suppliers with performance gaps are issued corrective action plans and invited to participate in development programmes. In 2024, 122 suppliers entered this process, with 97% of re-evaluated suppliers showing some improvement, according to the company. In cases of critical non-compliance (12 suppliers), corrective actions were requested, though no supplier relationships were terminated solely due to sustainability performance. Bayer also supported capacity-building through platforms like the TfS Academy and PSCI resource library.

While Bayer presents a well-structured and proactive approach to embedding sustainability into supplier management, several critical gaps undermine the credibility of these efforts as effective decarbonisation levers. For instance, **Bayer does not provide a quantitative link between its supplier initiatives and its Scope 3 decarbonisation targets**. Specifically, no quantified GHG emissions baselines or forecasts are provided for suppliers involved in assessments, training, or development programmes. No emissions coverage figures are disclosed, i.e. the share of Scope 3 emissions attributable to suppliers engaged under EcoVadis, PSCI or TfS protocols remains unknown. Also, there is no disclosure of emissions reduction outcomes from the Scope 3 Decarbonization Accelerator, nor any estimates of how much abatement is expected by 2029. Meanwhile, activity metrics (e.g. number of audits, number of suppliers trained) are prioritised over outcome metrics (e.g. tonnes of CO_2e mitigated), making it difficult to assess real-world climate impact.

Neither does Bayer disclose how much financial or operational support is directed toward enabling supplier decarbonisation, such as incentives, financing mechanisms, or technical support. Moreover, sector-specific constraints are acknowledged (e.g. limitations in the seed supply chain), but there is **little transparency on how Bayer plans to overcome structural barriers or scale effective practices** across its supplier base.

In conclusion, from a climate-transition perspective, **the approach remains process-oriented rather than outcome-driven**. Without quantitative disclosures on supplier-level emissions, mitigation outcomes, or alignment with overall Scope 3 targets, **Bayer's current efforts are best described as enabling foundations, rather than demonstrably effective pathways toward net-zero alignment**.

Customer Engagement

1. Sustainable Packaging

In 2024, Bayer expanded sustainable packaging efforts through its "Sustainability by Design" programme. This includes PET blister packs for Aleve (U.S.), 80% lighter refillable bottles for Bepanthen™, and participation in the Blister Pack Collective. These initiatives aim to improve recyclability and reduce material use, with the company reaffirming its 2030 target of 100% recycle-ready Consumer Health packaging (where legally permissible).

While Bayer does not disclose the expected emissions reductions from these initiatives, given that Category 12 (end-of-life treatment) represents a minor portion of its total GHG footprint, the climate relevance of these actions would seem to be limited.

2. Agricultural Engagement

Bayer retains its target to support farmers in reducing **in-field GHG emissions by 30% per unit of crop by 2030** from a 2019 baseline of approximately 100,000 $KTCO_2e$. However, these emissions are not accounted for in the company's Scope 3 reporting. For instance, Category 11 (Use of Sold Products) continues to be deemed "not relevant" by the company. This exclusion raises concerns of potential under-reporting, as emissions from customer use of agricultural inputs would be material to Bayer's downstream climate impact.

Regionally, Bayer reports progress in rolling out carbon farming initiatives:

- **North America:** Expanded acreage-based incentives under the "Pro Carbono" programme tied to practices like reduced tillage and fertiliser optimisation. Impact is tracked through GHG modelling, but aggregate emissions avoided remain undisclosed.
- **Latin America:** In Brazil, 250,000 acres (and over 2,000 farmers) are now enrolled under the "Bayer Carbon Program", in collaboration with Embrapa for soil carbon assessments.
- **Europe:** New pilots with food companies aim to integrate farm-level emissions into procurement.
- **Asia-Pacific:** In India, the transition to direct-seeded rice shows 30-40% methane reductions over traditional methods, though no conversion to total GHG footprint impact is provided.

In conclusion, Bayer's customer engagement seems ambitious and operationally well-integrated, especially within agriculture. Yet, Bayer's disclosures remain largely qualitative, with no financial disclosure of investment volumes or quantified abatement delivered, per engagement action. Thus, the emissions mitigation impact of these programmes remains unclear, and, without Scope 3 attribution, the initiatives' contribution to Bayer's net-zero goal is difficult to verify. Bayer continues to exclude Category 11 emissions from its footprint disclosures, despite clear linkage between its crop-input products and in-field emissions, estimated at approx. 100,000 $KTCO_2e$ in 2019. It has not disclosed how its customer-facing initiatives support the 30% in-field reduction target and no capex disclosure is provided for carbon farming programmes, limiting accountability and credibility.

Influence on Policymakers

In 2024, Bayer continued to demonstrate active and structured engagement with climate policy across key jurisdictions. The company maintained a strong top-line endorsement of the Paris Agreement and the 1.5°C target, but nuanced analysis of its advocacy and alliances reveals some inconsistencies and strategic ambiguity.

A. Messaging and Strategic Endorsements

Bayer's public climate messaging remains broadly aligned with the objectives of the Paris Agreement. Its **2024 Climate Advocacy Review** reaffirmed support for:

- Limiting global warming to 1.5°C.
- The EU 2050 climate neutrality target.
- A 90% GHG emissions reduction target for the EU by 2040, in line with recommendations by the European Scientific Advisory Board on Climate Change.

However, Bayer's simultaneous endorsement of the **Antwerp Declaration** in February 2024 suggests a tension between its climate ambitions and its industrial policy priorities. The declaration criticised prescriptive environmental regulation and called for a competitiveness-first approach to EU Green Deal implementation, a stance that potentially undermines strong regulatory action.

B. Policy Engagements

Bayer showed increased engagement with specific climate policy proposals. For instance, it supported extending the **EU Emissions Trading System (ETS)** to include agriculture and advocated for an EU carbon market framework in Brazil, reflecting a growing acceptance of market-based mechanisms. Moreover, the company signed a joint letter in October 2023 supporting a global renewable energy target at COP28. However, in its **2024 Climate Advocacy Report**, Bayer takes a weaker stance on Sustainable Aviation Fuel (SAF) safeguards, advocating for flexibility in how feedstocks are sourced. It also supports the expansion of Annex IX of the EU Renewable Energy Directive to include crops from degraded lands, which may dilute environmental safeguards.

In the U.S., Bayer publicly backed maintaining climate-related investment provisions of the **Inflation Reduction Act (IRA)** in a Ceres-led federal engagement in March 2025. Yet, earlier statements to U.S. policymakers also highlighted support for biofuels and BECCS without consistently acknowledging their sustainability trade-offs or the need for a shift toward zero-emission energy systems.

C. Land-Use and Agricultural Policy

Bayer advocates for "sustainable agricultural intensification"[8] **and "nature-based removals"**, endorsing their integration into the EU's 2040 climate target.

However, in the U.S., Bayer backed crop-based bioenergy in July 2024 without recognising associated risks (e.g. land-use change or limited net GHG benefits), which contrasts with growing scientific and regulatory caution in this area.

8 Please note that "sustainable" and "agricultural intensification" while used by the company on a positive framing here they are usually opposed concepts. In addition, Monsanto (a Bayer brand), has been often tied to reduced crop biodiversity and pesticides and fertilizers increased use.

D. Industry Associations

Bayer updated its **Industry Association Climate Policy Alignment Review** in 2024, presenting one of the most comprehensive associations reviews of the industry. Nevertheless, the company **retains membership and leadership positions** in associations with documented misalignment on climate policy, including **BusinessEurope**, **VCI**, **BDI**, and **Cefic**. Also, the company failed to disclose material evidence of indirect climate opposition by groups like **CNI (Brazil)** and **CII (India)**, despite their documented support for fossil fuel-friendly measures or weak renewable energy frameworks in 2024.

Bayer asserts it seeks to influence these groups from within rather than exiting, but without clear evidence of internal reform outcomes, this strategy risks being perceived as passive endorsement of obstructive lobbying.

While the company seems to have an overall climate positive engagement with policymakers, its support for competitiveness-focused statements (e.g. Antwerp Declaration) and selective advocacy (e.g. SAF safeguards, bioenergy) often undercuts its Paris-aligned top-line climate commitments. Also, while Bayer is leading in publishing alignment reviews, the omission of known policy activities by key associations (e.g. CNI, CII) raises concerns about its full transparency and selective disclosure. Lastly, it could be said that Bayer's advocacy for technologies like biofuels, BECCS, or even genetically modified seeds, lacks accompanying guardrails or recognition of systemic risks, limiting their credibility as sustainable transition solutions.

In summary, Bayer's climate policy engagement remains more constructive than obstructive, especially compared to peers in the chemical and pharmaceutical sectors. Still, the company must improve policy consistency, expand its disclosures, and push for climate alignment within trade associations to fully align with Paris-compatible standards. Without these steps, its dual focus on climate ambition and industrial competitiveness risks diluting the transformational intent of its advocacy.

MANAGEMENT ALIGNMENT

Sustainability Targets Oversight

Bayer operates under Germany's dual governance system. The Supervisory Board provides oversight, while the Management Board is responsible for strategic and operational execution. In 2024, Bayer maintained this framework, with a number of updates reinforcing (although not radically enhancing) its sustainability oversight.

A. The Supervisory Board

The Supervisory Board holds dedicated ESG oversight responsibilities through its ESG Committee, which remains composed of the Chairman and seven additional members. The committee is mandated to oversee:

- The integration of sustainability into the company's business strategy;
- The establishment and monitoring of sustainability targets;
- ESG risk/opportunity management and organisational structure oversight;
- Non-financial reporting, unless under the Audit Committee's purview.

In 2024, Bayer reiterated the ESG Committee's responsibility for reviewing progress on the company's 2030 sustainability goals, including climate and biodiversity. Based on company's disclosures, the ESG Committee's remit remains focused on ensuring long-term value creation while managing ESG risk and stakeholder expectations.

B. The Management Board

In 2024, the Board of Management remained composed of six members, with **Bill Anderson**, **the Chief Executive Officer (CEO)** serving as Chairman and the **Chief Sustainability Officer (CSO)** role (see Table 2). According to the company, this triple mandate ensures that sustainability remains central to Bayer's strategic agenda. The chairman is directly supported by the Public Affairs, Science, Sustainability & HSE Enabling Function, which oversees strategy implementation across business divisions.

Table 2: *Management Board*
Source: Bayer Annual Report 2024

Director Name	Bill Anderson	Wolfgang Nickl	Stefan Oelrich	Heike Prinz	Rodrigo Santos	Julio Triana
Position	Chairman	Finance Director	Pharmaceuticals Director	Labor Director	Crop Science Director	Consumer Health Director

The **2024 Impact Report** confirms that sustainability remains embedded across the divisional operating models, with each division accountable for site-level execution and climate programme delivery. Bayer's Sustainability Council, established in 2020, continues to advise the Management Board and push its recommendations on topics including:

- Climate strategy execution,
- Scope 3 emissions management,
- Nature and biodiversity integration,
- Systemic impact measurement.

In addition, Bayer states that climate-related scenario analysis and net-zero planning are actively supported by dedicated working groups within the Group Sustainability Function. Also, while the company reiterates its emphasis on alignment, **quantitative targets are tied to incentive structures, with climate goals linked to variable remuneration**, as further detailed in the "Management Compensation" section.

In short, **Bayer's governance structure for sustainability oversight remains largely unchanged but functionally robust in 2024**. The Supervisory Board's ESG Committee has a clear mandate but could benefit from more climate-relevant expertise[9]. Meanwhile, the Management Board, led by a Chairman-CEO-CSO hybrid role, seems to ensure direct accountability for climate action, supported by institutional mechanisms like the Sustainability Council and divisional ownership.

9 To clarify, most ESG expertise is integrated through management and risk oversight rather than relying on this committee background.

Management Compensation

Bayer's executive compensation framework continues to consist of fixed and variable components, with the short-term incentive (STI) and long-term incentive (LTI) systems incorporating elements of sustainability-linked performance. The company made no major structural changes in 2024, maintaining the 2020 compensation system revisions that took effect in 2023 (see Figure 9).

Comparison of the compensation systems

Previous compensation system (approved on April 28, 2020)	Compensation component	Updated compensation system (in effect from fiscal 2024)
Variable compensation		

// Annual bonus based on a target amount, with payout after one year calculated as follows:
– 1/3 weighting: Matrix for clean EBITDA margin vs. sales growth at divisional level
– 1/3 weighting: Core EPS at Group level
– 1/3 weighting: Free cash flow at Group level
– Individual performance factor (0.8–1.2)
– Payout capped at 200% of individual target amount
	Short-term variable cash compensation (STI)	// Annual bonus based on a target amount, with payout after one year calculated as follows:
		– 1/3 weighting: Sales growth at Group level (Fx & p adj.)
		– 1/3 weighting: Core EPS at Group level "as reported"
		– 1/3 weighting: Free cash flow at Group level "as reported"
		– Factor for strategy development and execution (0.8–1.2)
		// Payout capped at 200% of individual target amount

// Performance shares based on absolute performance of Bayer stock. The number of performance shares is determined at the end of a four-year performance period on the basis of a target amount and the following performance criteria:
– 40% weighting: Relative total shareholder return compared to the EURO STOXX 50 (outperformance)
– 40% weighting: ROCE at Group level
– 20% weighting: Sustainability targets
// Payout capped at 250% of individual target amount
	Long-term variable cash compensation (LTI)	// Performance shares based on absolute performance of Bayer stock. The number of performance shares is determined at the end of a four-year performance period on the basis of a target amount and the following performance criteria:
		– 80% weighting: Relative total shareholder return compared to the companies of the EURO STOXX 50 Total Return (ranking)
		– 20% weighting: Sustainability targets
		// Payout capped at 250% of individual target amount

Figure 9: *Bayer's Compensation System Changes. Source: Compensation System 2024 Report*

Short-Term Incentive (STI)

The STI remains composed of four components (see Figure 10): three financial KPIs (core EPS, free cash flow, and sales) and the "Factor for Strategy Development and Execution", which replaced the former individual performance component in 2023.

According to the company, this fourth component allows the Supervisory Board to qualitatively assess non-financial achievements, including **ESG performance**. However, **no specific weighting or breakdown** is provided on how ESG targets factor into this component or what share they represent in the overall STI payout. The company confirms that the "Factor for Strategy Development and Execution" may reflect performance in areas such as digitalisation, innovation, and sustainability, but does not disclose detailed evaluation metrics or ESG-specific scores.

As a result, the absence of clarity on the ESG weighting within the STI makes it difficult to evaluate the true influence of sustainability performance on short-term variable pay. Without greater transparency, ESG elements risk being deprioritised relative to financial targets[10].

Figure 10: *Bayer's Components of Short-Term Variable Cash Compensation (STI). Source: Compensation System 2024 Report.*

10 For more details see "The Sustainability Pay Gap".

Long-Term Incentive (LTI)

The LTI continues to embed sustainability targets into executive pay and is awarded in the form of performance shares, allocated annually with a four-year performance period (see Figure 11). The performance share payout is based on two criteria, namely, relative total shareholder return (TSR) (80% weighting), and **sustainability performance (20% weighting)**.

For the **2024–2027** LTI tranche, the sustainability component is based on the following targets:

1. GHG Emissions Reduction (Scope 1, 2, and selected Scope 3): aligned with Bayer's 2030 net-zero pathway.

2. Agricultural Impact: increase the number of smallholder farmers in low- and middle-income countries supported by products, services and partnerships[11].

3. Health Impact: extend access to everyday self-care and health solutions.

Each of these targets is assigned a minimum, target, and maximum performance value, corresponding to a 0%–200% target attainment range. The final payout from the LTI is capped at 250% of the contractually agreed target amount. For more information, the final payout is equal to the preliminary number of performance shares multiplied by the performance factor, and by the sum of the share price and cumulative dividend. The sustainability portion can thus influence the payout up to 20% of the total weighting.

Despite the somewhat explicit link between sustainability outcomes and LTI payout, the dominant weighting of financial market performance (80%) coupled with the maximum cap on pay may dilute the incentive of ESG targets attainment.

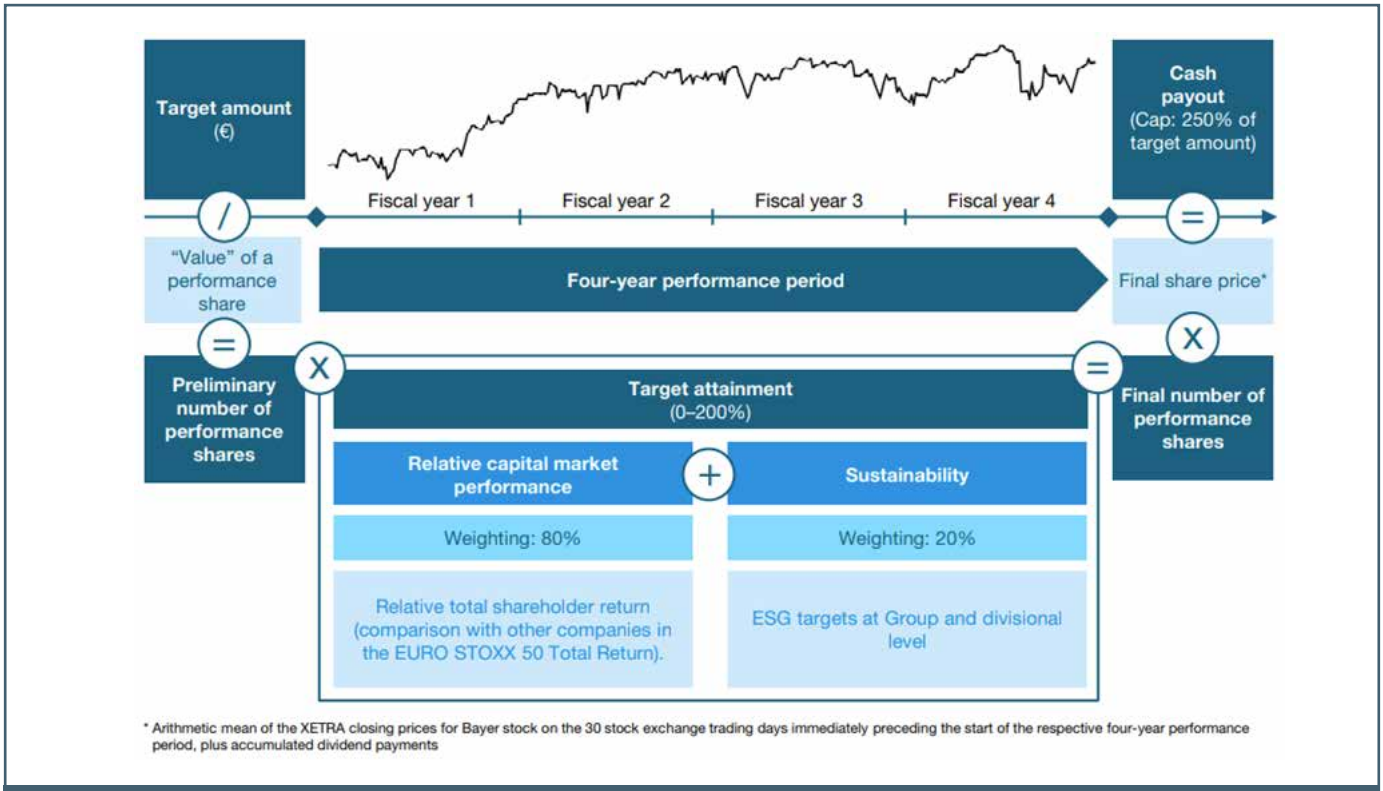

Figure 11: *Bayer's Components of Long-Term Variable Cash Compensation (LTI). Source: Compensation System 2024 Report.*

11 Bear in mind that while this is presented as positive by Bayer, it could also be argued that from a nature perspective it could create an unsustainable dependence.

Risk Analysis

FINANCIAL IMPACT

In its 2024 TCFD disclosures Bayer continues to recognise climate change as a material financial and strategic risk. However, key gaps remain, particularly in the quantification of potential risks and transition-related opportunity costs.

Bayer's climate risk modelling relies on dual scenario pathways consistent with the IPCC Sixth Assessment Report (AR6):

- **SSP1-1.9 ("Green Road")**: ~1.6°C warming by 2041–2060, representing an ambitious transition.
- **SSP3-7.0 ("Rocky Road")**: ~2.1°C by 2041–2060 and up to 3.6°C by 2100, representing a fragmented and delayed transition.

The company provides the assessments of individual climate impact drivers over three time horizons: short-term (2023–2025), medium-term (2026–2035), and long-term (2036–2050), as shown in Figure 12. However, while according to Bayer these scenarios are integrated into enterprise risk assessments and strategic planning processes across business divisions, the company does not share the quantified risks and potential costs of these drivers.

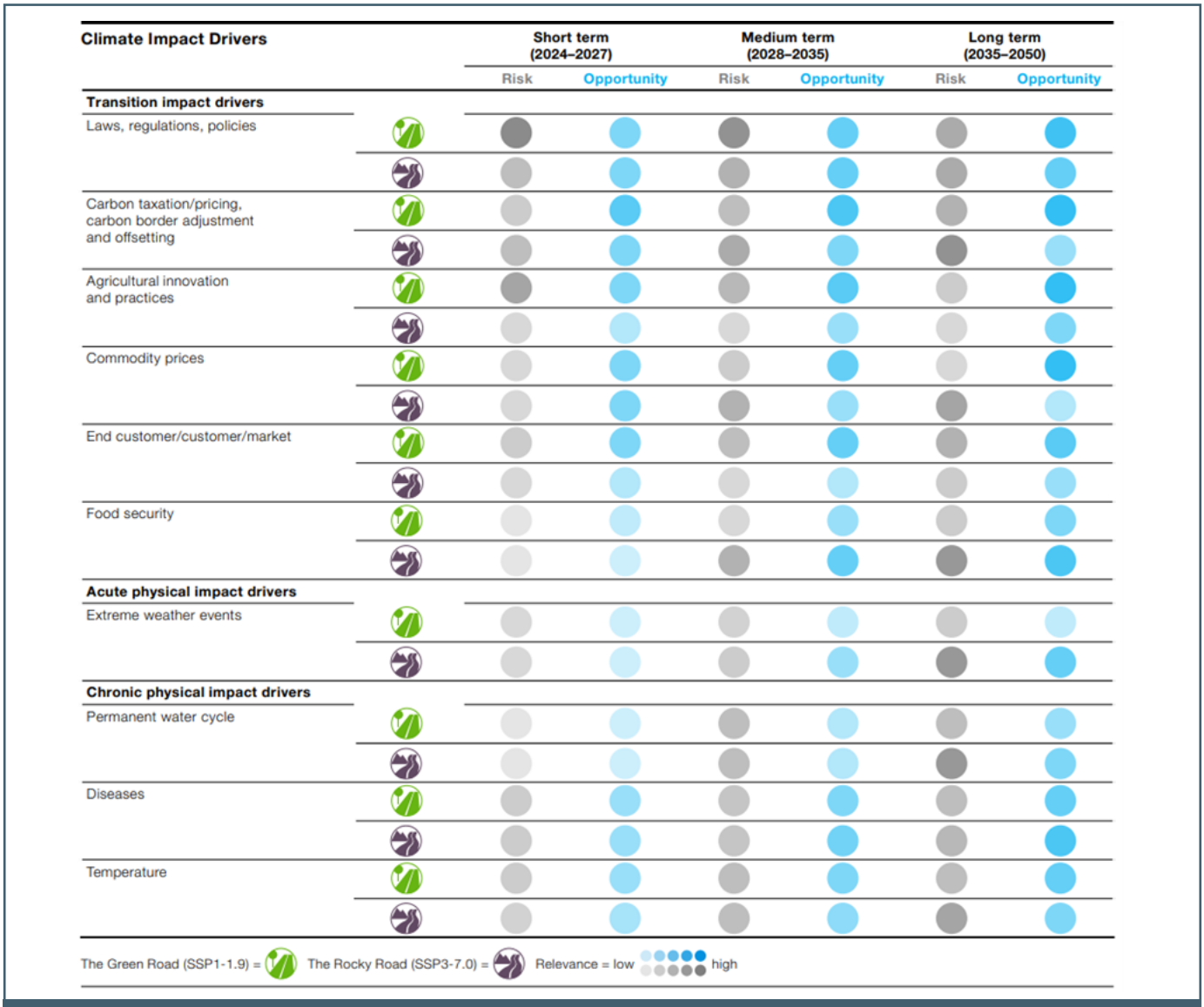

Figure 12: *Bayer's assessments of the individual climate impact drivers. Source: Bayer's 2024 TCFD Report.*

External Policy Drivers

Regulatory developments remain the primary source of identified transition risk for Bayer. The company anticipates regulatory changes as crucial drivers of climate transition risk, influenced by emissions reduction commitments from key regions where it operates, including the EU and China. For instance, the European Union's Green Deal, aiming for climate neutrality by 2050, could increase Bayer's costs through mechanisms such as the EU ETS or carbon taxes and drive shifts towards renewable energy and hydrogen technologies. Similarly, China's commitment to achieving Net Zero emissions by 2060 suggests future regulatory adjustments that could impact Bayer's operations, especially in sectors like biofuels.

Meanwhile, Bayer acknowledges that carbon pricing and regulatory compliance will become more financially material but reiterates that the overall transition risk impact remains "low" (i.e., below EUR 150 million currently).

Physical Impact Drivers

A. Acute Physical Risks

Bayer highlights as physical climate risk drivers **potential disruptions to agricultural supply chains**, as well as operational disruptions at manufacturing and R&D sites **from extreme weather events** (i.e., heatwaves, droughts, flooding). A few examples the company mentions include potential yield loss in corn and soybean production in Brazil and the US Midwest due to prolonged drought and rainfall variability, and logistics bottlenecks linked to infrastructure damage in high-risk zones.

However, **Bayer does not quantify the financial materiality of these impacts**. This remains a significant gap in understanding the capital at risk due to climate-related acute events.

B. Chronic Physical Risks

Bayer identifies **long-term shifts in temperature, precipitation, and water availability** as having structural implications on crop viability and planting cycles, product demand in health, and water access stress at production and supplier sites. The company discloses that it has started site-specific vulnerability assessments, however **does not assign monetary values** to these chronic risks. Nor does it mention how the use of its products may contribute to degrade certain ecosystems, and how is Bayer planning to avoid this.

Market Impact Drivers

Bayer also identifies climate-linked **growth opportunities**, including increased demand for drought-resistant seeds and precision agriculture solutions, as well as health product adaptation to shifting disease burdens (e.g. increased demand for cardiovascular therapies in heat-prone regions). Yet, these opportunities are not financially quantified.

In summary, besides identifying the relevance of its top 10 climate drivers, in terms of risk and opportunities, Bayer does not disclose the financial numbers behind these. While anecdotal examples are included, to strengthen its climate financial risk assessment credibility Bayer should quantify and disclosure its financial exposure to physical climate events, and the investment needs for its transition strategy. Lastly, Bayer should also provide greater clarity on **how climate risks are incorporated into financial forecasting and asset valuation**[12].

12 Often the lack of disclosures and underlying assessments may lead to undesirable financial surprises. For more details see "Is Bayer a litigation leading indicator?"

RISK MANAGEMENT

Based on the company's disclosures, Bayer continues to embed climate-related risk assessment into its overarching Enterprise Risk Management (ERM) system, acknowledging that climate change poses both material threats and opportunities across its business model. The company states its accounting practices account for uncertainties linked to climate change, which could affect the financial position and results of its operations. However, Bayer still falls short of offering consistent financial quantification.

External Policy Risk Management

In managing regulatory risks, Bayer continues to emphasise decarbonisation and GHG emissions reduction in alignment with a 1.5°C scenario, to mitigate potential regulatory costs. Moreover, the company states that it actively evaluates upcoming policy changes and incorporates them into financial planning. However, **details on the financial costs of related initiatives** (i.e., policy risk mitigation actions) **and their expected or potential emissions mitigation are not provided**, beyond some anecdotal examples.

Physical Impact Management

A. Acute Physical Impacts:

Bayer identifies increasing frequency and severity of extreme weather events - e.g., droughts, heatwaves, floods - as material risks to its crop science and manufacturing operations. The company's primary current mitigation tool remains **insurance coverage**, although it warns that "the availability and pricing of insurance is expected to shift in future years" due to changing climate risk profiles.

For example, while not disclosed in 2024, a precedent was set in 2023 when Bayer received a EUR 195 million insurance payout related to Hurricane Ida. No similar specific incidents were quantified this year.

Also, Bayer is **expanding investment in crop resilience R&D**, notably in drought-resistant seed varieties and the continued rollout of the Preceon™ Smart Corn System, although no concrete capex figures are disclosed.

B. Chronic Physical Impacts:

Bayer acknowledges that shifts in climate zones, water stress, and longer-term ecosystem change present growing risks to agricultural productivity and health outcomes. In response, the company states that it has **initiated site-specific climate vulnerability assessments** across priority locations. Furthermore, its water stewardship programme was expanded, with risk analyses conducted at key production sites. Also, it plans to adapt R&D pipelines to account for anticipated shifts in disease prevalence due to chronic heat exposure.

Overall, Bayer intends to actively manage both the transition and physical risks associated with climate change while capitalising on new business opportunities coming from the global shift towards a more sustainable and resilient economy. However, as summarised in Table 3 **material disclosure gaps remain**.

Table 3: *Climate-related Risk Management Gaps. Source: Planet Tracker Assessment*

Category	Disclosure Quality	Remaining Gaps
ERM Integration	Moderate	No consistent link to financial reporting or budget allocation
Transition Risk Mitigation	Partial	Lack of detailed cost/benefit analysis of regulatory preparedness
Acute Physical Risk Strategy	Basic (insurance + R&D)	No long-term modelling of insurance pricing or exposure
Chronic Risk Adaptation	Qualitative only	No quantified impacts or investment strategy disclosed

To strengthen the credibility of its risk management framework, Bayer should increase **transparency around capex allocations for adaptation and mitigation**, disclose **financial materiality of climate risks**, and link its physical and transition risk strategy to **measurable resilience indicators** and future insurance planning.

Strategic Assessment

CAPITAL ALIGNMENT

Bayer reiterated its existing pledge to invest approximately **EUR 500 million between 2020 and 2029 in energy efficiency and renewable energy measures across its operations**. This equates to an annual investment of EUR 50 million (baseline 2019), or just 1.5% of total group capital expenditures (EUR 3.3 billion in 2024). However, the lack of granular disclosure on the actions to achieve its decarbonisation targets makes it difficult to assess whether Bayer's capital expenditure plans are sufficient to achieve these targets.

By the end of 2023, 39.5% of Bayer's purchased electricity was from renewable sources, up from 32.6% in 2022, showing incremental progress toward its 100% renewable electricity goal by 2029. However, the company did not disclose the signing of new Power Purchase Agreements (PPAs) or investment volumes supporting this shift. Similarly, while Bayer continues to aim for full electrification of its 26,000-vehicle global fleet by 2030 "where technically and economically feasible," no update was given in 2024 regarding fleet electrification share, associated opex, or emissions savings.

Furthermore, according to Bayer's 2024 Annual Report, **the company reported EUR 549 million in Taxonomy-eligible capex or 16.7% of its total capex**, of which, **Climate Change mitigation received 4.3%** and pollution prevention and control the remaining 12.4%. However, **none of Bayer's capex is Taxonomy-aligned**[13]. Meanwhile, Taxonomy-eligible opex amounted to EUR 176 million (or 2.5% of total operating expenditure), all of it allocated to Pollution prevention and control. Similarly, none of it was Taxonomy-aligned opex. These values signal very limited strategic alignment of spending with EU-defined sustainable economic activities.

Therefore, while Bayer continues to offer some transparency on operational decarbonisation, it does not publish a breakdown of sustainability-linked investments across other material Scope 3 categories. This omission could be material, especially given the size and relevance of Category 11 emissions in agricultural value chains. Despite its flagship initiatives, such as carbon farming and packaging innovation, no quantifiable capex or investment disclosures are linked to Scope 3 abatement.

In other words, Bayer's capital alignment strategy remains largely focused on internal decarbonisation and selected offset projects. While it applies an internal carbon price and has confirmed several environmental investment commitments, its capital allocation does not yet demonstrate a holistic shift toward a low-carbon value chain. Bayer's overall capital alignment appears more consistent with a business-as-usual trajectory than a Paris-aligned 1.5°C pathway[14].

13 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.

14 For more details on capital alignment and how it compares with its pears see "Lessons in Chemistry: Climate Action Giants".

TRANSITION APPRAISAL

Bayer has disclosed long-term climate ambitions to achieve Net Zero across its value chain by 2050, supported by interim targets for 2029. These include a 42% reduction in Scope 1 and 2 emissions and a 25% cut in selected upstream Scope 3 emissions from a 2019 baseline. Between 2020 and 2024, the company reduced total GHG emissions by 9.2%, despite average annual revenue growth of 3%. However, its emissions trajectory over this period has been inconsistent, with year-on-year increases in some intervals. Furthermore, material categories such as downstream "product use" (Category 11) remain excluded from Scope 3 disclosures, likely resulting in an underestimation of the company's full climate footprint.

On governance, Bayer maintains a structured framework with sustainability oversight anchored at the board level, including a CEO/Chair who also serves as Chief Sustainability Officer. This integrated leadership model is supported by the company's Sustainability Council and dedicated working groups. However, while climate goals are formally embedded in long-term incentive plans, their influence may be diluted by the financial targets performance. Short-term remuneration lacks transparency around how ESG factors are evaluated, limiting external visibility on the incentive structure's effectiveness in driving climate performance.

From a capital allocation perspective, Bayer has committed a total of EUR 500 million from 2020 through 2029 for operational decarbonisation focusing primarily on energy efficiency and renewable electricity. This equates to less than 2% of annual capex and remains limited in scope relative to the company's broader emissions profile. Critically, no specific investments have been disclosed for Scope 3 mitigation, which accounts for approximately 75% of the company's total emissions. Despite some progress on renewable energy sourcing (i.e., reaching 39.5% of purchased electricity by the end of 2023) Bayer has not disclosed the signing of new Power Purchase Agreements (PPAs) in 2024. Moreover, the company reported 16.7% of its 2024 capex as EU Taxonomy-eligible, yet none of this was classified as Taxonomy-aligned, signalling a somewhat limited alignment between financial strategy and transition goals.

Bayer's supplier and customer engagement programmes appear operationally well-structured, involving membership in key platforms (e.g., TfS, PSCI, PACT) and targeted initiatives such as the Scope 3 Decarbonization Accelerator and the Bayer Carbon Program. However, these efforts remain largely process-oriented, with no disclosure of supplier-level emissions coverage, baseline emissions, or measurable mitigation outcomes. The company's in-field GHG reduction target for farmers (i.e., 30% per unit of crop by 2030) remains excluded from Scope 3 accounting and is unsupported by capex disclosures or abatement figures.

In the policy arena, Bayer demonstrates comparatively constructive engagement, publishing one of the most comprehensive industry association alignment reviews in the sector. It has endorsed key global targets such as the 1.5°C goal and supported reforms like carbon pricing in the EU and Brazil. However, its simultaneous backing of the Antwerp Declaration, which argues against prescriptive environmental regulation, and continued membership in associations with poor climate records (e.g., BusinessEurope, VCI, CNI) raise questions about the consistency of its policy stance.

Overall, while Bayer's transition strategy contains several enabling elements including clear governance structures, defined targets. However its selective policy leadership, the absence of key downstream emissions disclosures, limited transparency around sustainability-linked investments, and the modest scale of decarbonisation capex/opex weaken the credibility of its current pathway. Given these gaps (and potential ecosystems damage), **Bayer's current efforts are best described as enabling foundations, rather than demonstrably effective pathways toward net-zero alignment**. Planet Tracker assesses that **Bayer is on a trajectory more consistent with a 2°C warming scenario by 2030**, falling short of the ambition required to align with the Paris Agreement's 1.5°C goal.

Planet Tracker concludes that Bayer is on track for a 2°C warming scenario by 2030[15].

15 Based on the data accessed by Planet Tracker as of July 2025.

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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.

ABOUT PLANET TRACKER

Planet Tracker is a non-profit financial think tank producing analytics and reports to align capital markets with planetary boundaries. Our mission is to create 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 – FOOD SYSTEM COMPANIES

As part of its Food & Land Use programme, Planet Tracker is examining the transition plans of the food system (Consumer Goods) 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 food system companies to account for the quality of their climate transition plans and their execution against those plans, and to encourage them to use this information to engage effectively with these companies with the ultimate aim of driving the sustainable transformation of the global food system.

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