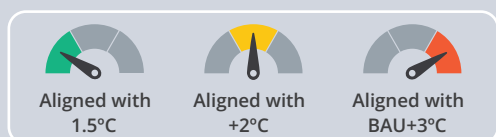




Overall Assessment

Planet Tracker: SABIC is expected to be on a 2°C pathway by 2030.

SABIC aims for carbon neutrality by 2050, targeting a 20% reduction in Scope 1 and 2 GHG emissions by 2030 from a 2018 baseline. To support this, SABIC plans to invest USD 3 to 4 billion in energy efficiency, renewable energy, and carbon capture technologies, with significant capital expenditure towards process optimisation. SABIC's initiatives in energy efficiency, renewable energy, SEEP participation, and CCUS development are projected to yield substantial energy and cost savings, underscoring its proactive sustainability approach. However, SABIC lacks a specific Scope 3 emissions target, which accounts for 70% of its footprint. More detailed reporting on outcomes and impacts is needed to validate its efforts to reduce indirect emissions through supplier and customer engagement. SABIC's financial exposure to climate-related risks exceeds SAR 1.15 billion (USD 306 million). The company demonstrates a robust approach to regulatory compliance, physical impact analysis, and market adaptation. Still, transparency in the financial implications of risk management, including the cost of upgrades and changes as well as the potential impact on emissions, would enhance its transition credibility. In summary, SABIC is likely to meet its Scope 1 and 2 targets long term, but the lack of a Scope 3 goal aligns the company with a 2°C warming scenario by 2030.



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

Download the Shareholder Engagement Sheet [here](#).



Climate Alignment

- Based on Planet Tracker's analysis, SABIC's Scope 3 upstream activities will constitute 42.9% of total emissions by 2030, making its mitigation key for an alignment with the latest Paris Agreement ambition.
- Without additional mitigation measures, SABIC is projected to increase its emissions by 13%, missing the 1.5°C pathway alignment and needing a 33% reduction in total 2022 emissions by 2030 to meet Paris Agreement targets.



Policy and Governance

- SABIC's engagement focuses on influencing sustainable behaviour, yet lacks a detailed evaluation of the impact on reducing Scope 3 emissions, suggesting a need for clearer metrics and reporting.
- SABIC's management has incorporated sustainability targets into executive compensation, but greater transparency in how these targets influence the overall remuneration would enhance the credibility of their commitment to sustainability.



Risk Analysis

- The assessment of SABIC's climate risks highlights a significant financial exposure exceeding SAR 1.1 billion (USD 305.9 million) in potential annual cost increases or loss of revenue by 2030.
- SABIC's risk management initiatives, demonstrate a comprehensive approach to mitigating financial impacts and leveraging sustainability opportunities, although more detailed reporting on outcomes is needed.



Strategy Assessment

- SABIC would require USD 3 to 4 billion in capital expenditure for energy efficiency, renewable energy, and carbon capture to meet its Carbon Neutrality goals by 2030, according to the company.
- Despite SABIC's potential to reduce Scope 1 and 2 emissions, the lack of a specific Scope 3 target and comprehensive reporting on indirect emissions engagement align the company with a 2°C warming scenario by 2030.

Company Overview

Saudi Basic Industries Corporation (SABIC), headquartered in Riyadh, Kingdom of Saudi Arabia (KSA), is one of the top seven largest global chemical companies, with a significant presence across the Americas, Europe, Middle East & Africa, and Asia Pacific. Notably, only 16% of its revenue on average

over the last five years (2019-2023) originated from KSA, with the majority, 84%, derived from international markets. Asia is the largest market, accounting for 19% of revenue from China and 21% from the rest of Asia, totalling 40%, followed by Europe at 22%, as detailed in Figure 1.

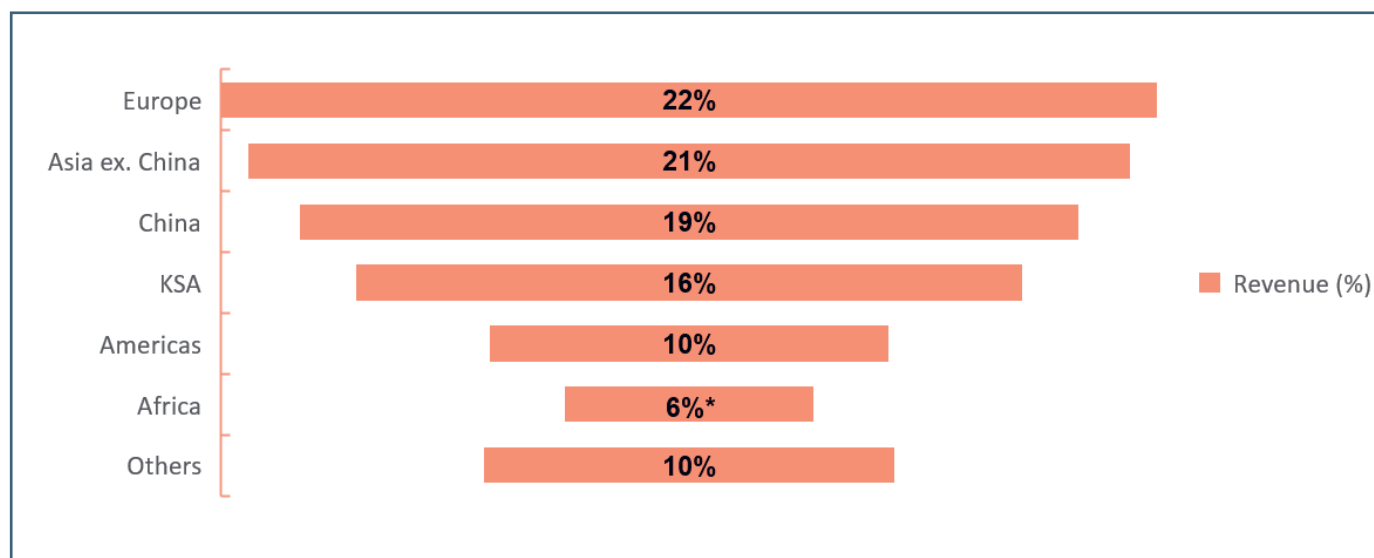


Figure 1: Revenue (%) - Breakdown by Geography (5Y Avg.). *With the exception of Africa for which only 2022 and 2023 data was available. Source: SABIC Annual Reports 2019-2023.

Moreover, SABIC is a diversified chemical company, originally concentrating on petrochemicals, and has since developed vertical integration in businesses such as Specialties¹ and Agri-Nutrients. In 2023, SABIC agreed to sell Hadeed, its iron and steelmaking unit, after 44 years of joint operation. Up to this date,

Hadeed was the second largest source of revenue for SABIC, contributing 8% on average over the past five years (2019-2023), while its Petrochemicals & Specialties division accounted for around 85% of the revenue, as illustrated in Figure 2.

¹ A business area focussed on the high-performance plastics segment.

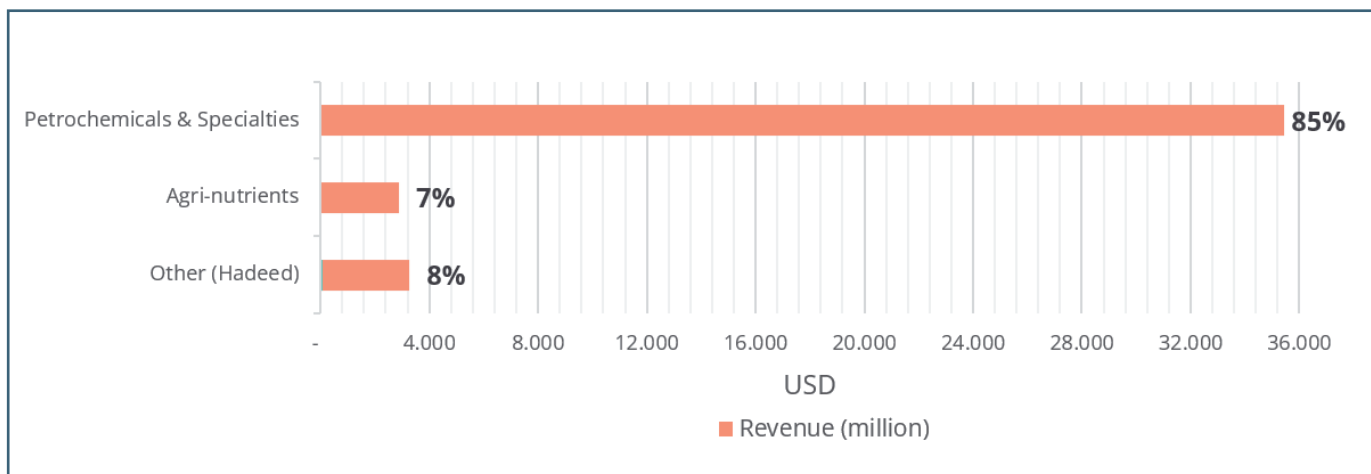


Figure 2: Revenue (%) - Breakdown by Business Segments (5Y Avg.).
 Source: SABIC Annual Reports 2019-2023 & Planet Tracker's calculations.

However, it is important to note that the Specialties segment does not meet the individual reporting requirements of IFRS 8 'Operating Segments'², and thus, is included as part of the Petrochemicals reporting

segment. Consequently, as shown in Figures 3 and 4, Specialties represent a relatively small proportion of the units sold or produced by SABIC.

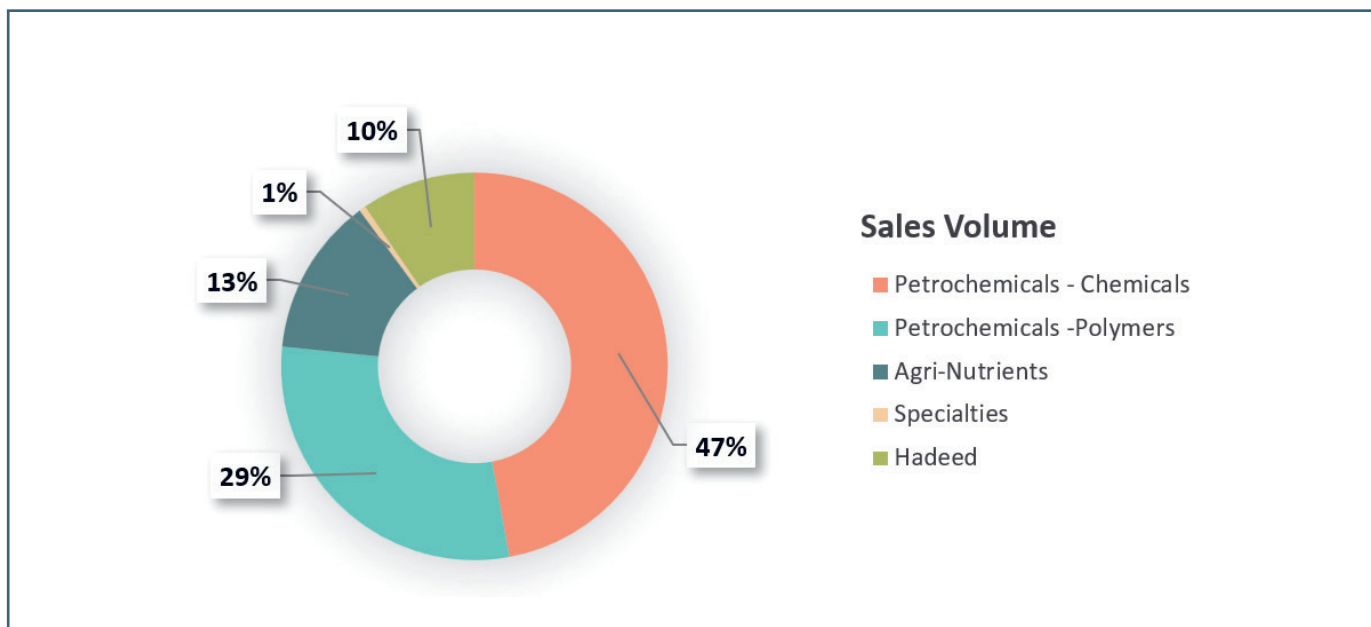


Figure 3: Sales Volume (%) - Breakdown by Business Segments (5Y Avg.)* With the exception of Hadeed for which only 2019-2022 data was available. Source: SABIC Annual Reports 2019-2023* & Planet Tracker's calculations.

² Due to its reduced size as shown in Figures 3 and 4.

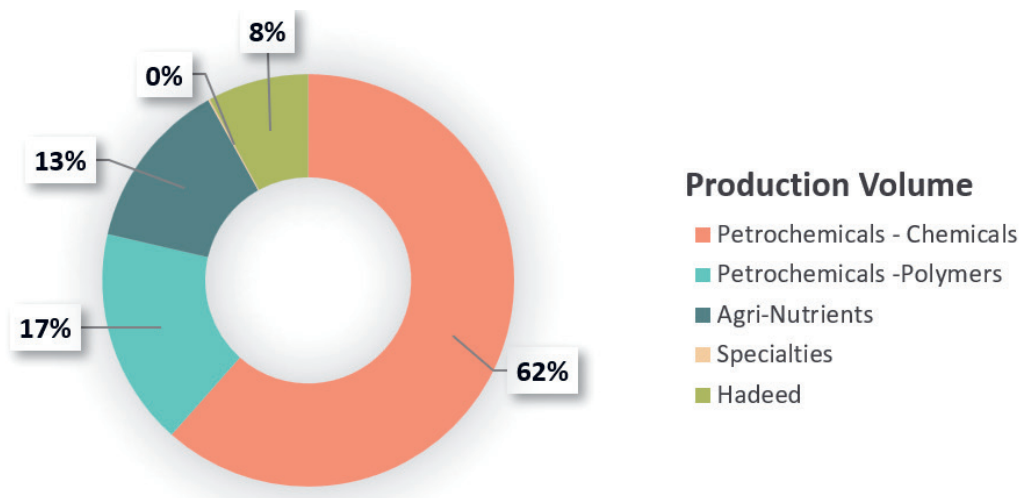


Figure 4: Production Volume (%) - Breakdown by Business Segments (5Y Avg.)*
 With the exception of Hadeed for which only 2019-2022 data was available.
 Source: SABIC Annual Reports 2019-2023* & Planet Tracker's calculations.

In conclusion, SABIC's main exposure to climate transition risks and opportunities arises from developments in the Petrochemical segment, with a

particular focus on related policies in Asia (incl. China) and Europe.

Climate Alignment

EMISSIONS INVENTORY

In SABIC’s most recent greenhouse gas (GHG) emissions disclosures³, its total footprint stands at 174,948 KTCO₂e. Examining the breakdown of these emissions in 2022, we found that operational emissions constituted 30% of its footprint, with Scope 1 GHG emissions accounting for 21.3% of the total emissions, and Scope 2 emissions (location-based) making up the remaining 8.7%. The majority, amounting to 70%, originated from Scope 3 activities.

Within this scope, 25.2% can be attributed to upstream activities⁴, while downstream activities⁵ were responsible for 44.8%. Notably, the main contributors include “Downstream Consumption,” accounting for 31% of total emissions, and upstream “Purchased Goods,” contributing 17.2%, as shown in Figure 5.

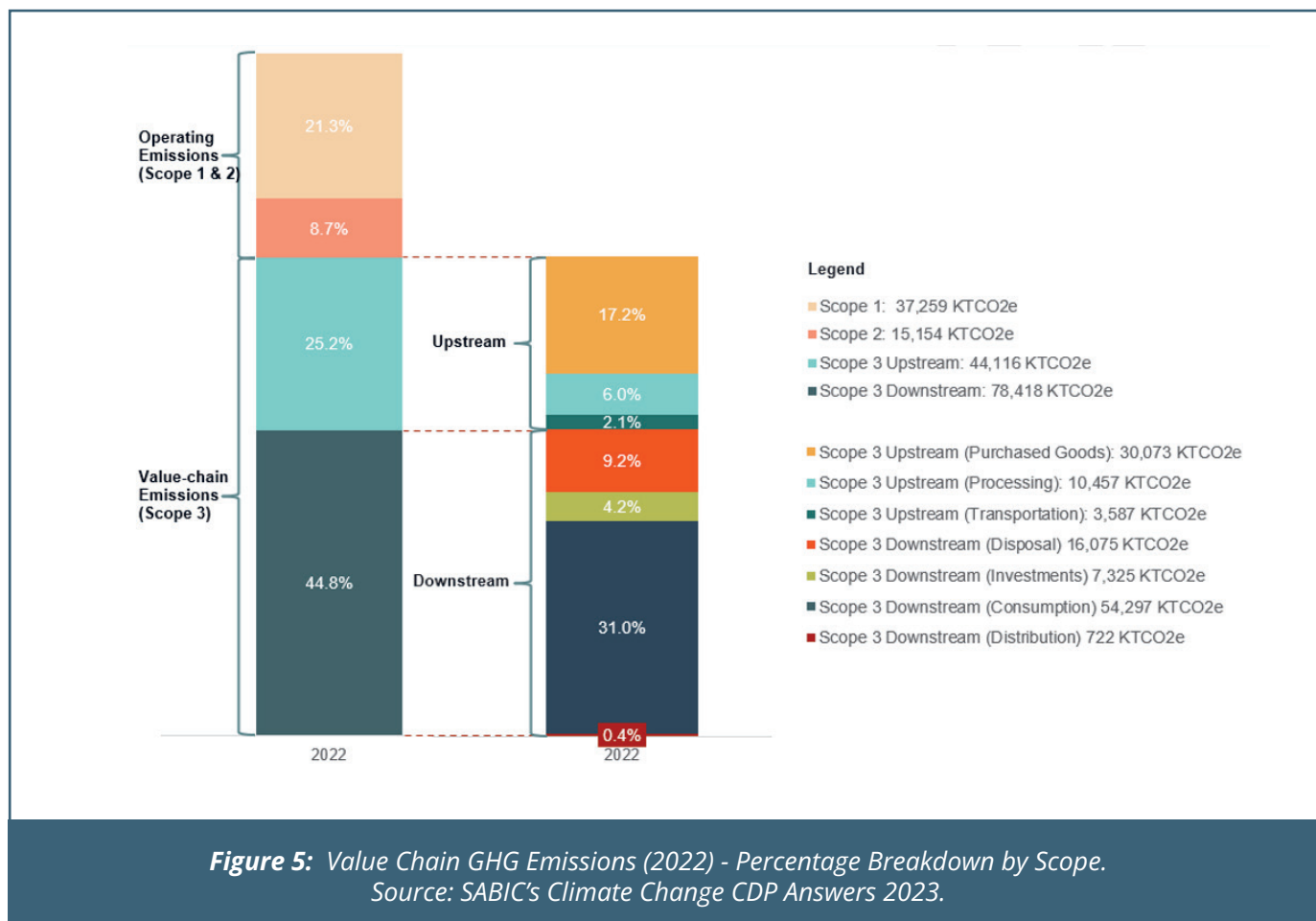


Figure 5: Value Chain GHG Emissions (2022) - Percentage Breakdown by Scope. Source: SABIC’s Climate Change CDP Answers 2023.

3 Presented in its 2023 CDP Climate Response and covering FY2022.

4 **Scope 3 upstream** emissions include: (1) Purchased Goods - accounting for the emissions associated with chemicals considered as feedstock; (2) Processing - including the “Capital Goods” emissions - i.e., emissions from any material or chemical not included in the list of feedstocks, the emissions from “Fuel and Energy Activities” not covered in Scope 1 and 2, and emissions from hazardous and non-hazardous “Waste from Operations”; (3) Transportation - covering emissions from “Transport & Distribution” associated with inbound (suppliers) and outbound (from SABIC to direct customers) transport operations, and also emissions from “Employee commuting”.

5 **Scope 3 downstream** emissions include: (1) Disposal - or emissions from “End of life treatment of sold products” - i.e., emissions related to the typical end-of-life treatments arising during recycling, incineration, and landfilling of articles made of plastic products at the end of their service life; (2) Investments - referring to the emissions for investments in associated and joint arrangement manufacturing companies; (3) Consumption - covering “Emissions associated with the processing of sold products,” and, the “Use of sold products” or “Emissions associated with the use phase of sold products,” primarily comprised of sold Agri-Nutrients products associated with the release of CO₂ and N₂O emissions from urea-based fertilizers; (4) Distribution - emissions from transporting all sold products in the intermediate travel or as part of final product travel to the final consumer.

Looking ahead, to assess the company's potential emissions evolution, we begin by examining its past performance. While Planet Tracker intended to analyse SABIC's total emissions evolution over the past five years (2018 to 2022), the company underwent several changes in emissions accounting from 2018 to 2020⁶.

As a result, for a like-for-like comparison, the following section will assess the evolution of the company's GHG emissions from 2020 to 2022 and their potential alignment with the company's Climate Transition targets.

EXTERNALITIES TRENDS AND TARGETS

Company Trends

Between 2020 and 2022, SABIC experienced a 0.5% absolute increase in total GHG emissions, rising from 174,012 KTCO₂e in 2020 to 174,948 KTCO₂e in 2022 (see Table 1)⁷. Although there was a decrease in Scope 2 and Scope 3 Downstream emissions there was an increase in Upstream Scope 3 GHG emissions.

Over the past three years (2020-2022), Scope 2 and Scope 3 Downstream emissions decreased in absolute terms by 13.5% and 4.5%, respectively, while Scope 3 Upstream emissions increased by 17.7%.

Table 1: Scope 1, 2, and 3 CO₂e evolution 2020-2022.
Source: SABIC's Climate Change CDP Answers 2021-2023 and Planet Tracker Calculations

Scope	2020 (KTCO ₂ e)	2022 (KTCO ₂ e)	Compounded annual change % (2020-2022)	Absolute Change % (2020-2022)
Scope 1 GHG Emissions	36,749	37,259	0.7%	1.4%
Scope 2 GHG Emissions (location-based)	17,513	15,154	-7.0%	-13.5%
Scope 3 Upstream GHG Emissions	37,485	44,116	8.5%	17.7%
Scope 3 Downstream GHG Emissions	82,266	78,418	-2.4%	-4.7%
Scope 1, 2 and 3 GHG emissions	174,012	174,948	0.3%	0.5%

To evaluate the company's alignment with its transition goals, we projected Scope 1, 2, and 3 GHG emissions up to 2030 using a straightforward extrapolation model based on the annual emissions change rate from 2020 to 2022. This projection assumes no additional mitigation efforts beyond historical measures. It is also noteworthy that during the 2020-2022 period, the company experienced a 5.2% increase in sales volume but only a 1.1% increase in production volume.

Thus, the relatively low increase in total emissions could be attributed to the relatively low increase in production volume. Additionally, SABIC's sale of its iron and steelmaking unit, Hadeed, is worth bearing in mind. This unit was sold in 2023, but its emissions were not disclosed separately.

⁶ The main changes include the calculation of emissions coming from "Purchased Goods and Services" and "Capital Goods" considerations when it comes to Upstream Scope 3 emissions disclosures, as well as the introduction of "Processing of Sold Products" and "Transportation and Distribution" emissions when it comes to Downstream Scope 3 disclosures.

⁷ If we are to consider the change in emissions from 2018 to 2022, SABIC's total GHG emissions increased by 36.9%, and if we look at the 2019-2022 period, the company's total GHG emissions increased by 7.6%. However, due to the changes in methodology, and the disclosure of new emissions segments these years would not be directly comparable.

Therefore, the company's GHG footprint would be relatively lower in 2024, but until disclosed, third parties cannot consider the effect of the sale on the company's future GHG trajectory, Based on our extrapolation⁸, by 2025, Scope 1 and 2 emissions are forecasted to reach 38,038 KTCO₂e and 12,198 KTCO₂e, respectively, and by 2030, 39,373 KTCO₂e and 8,496 KTCO₂e. Meanwhile, upstream Scope 3 emissions are expected to reach 56,327 KTCO₂e by 2025 and 84,642 KTCO₂e by 2030, with downstream Scope 3 emissions projected at 72,982 KTCO₂e in 2025 and 64,746 KTCO₂e in 2030. Consequently, without additional mitigation

efforts, the extrapolated emissions by 2030 would total 197,257 KTCO₂e, representing a 12.8% absolute increase compared to 2022 levels. In this scenario, by 2030, 42.9% of SABIC's total emissions would come from upstream activities, followed by 32.8% from downstream activities, with the remaining 20% and 4.3% from Scope 1 and 2 activities respectively, as illustrated in Figure 6.

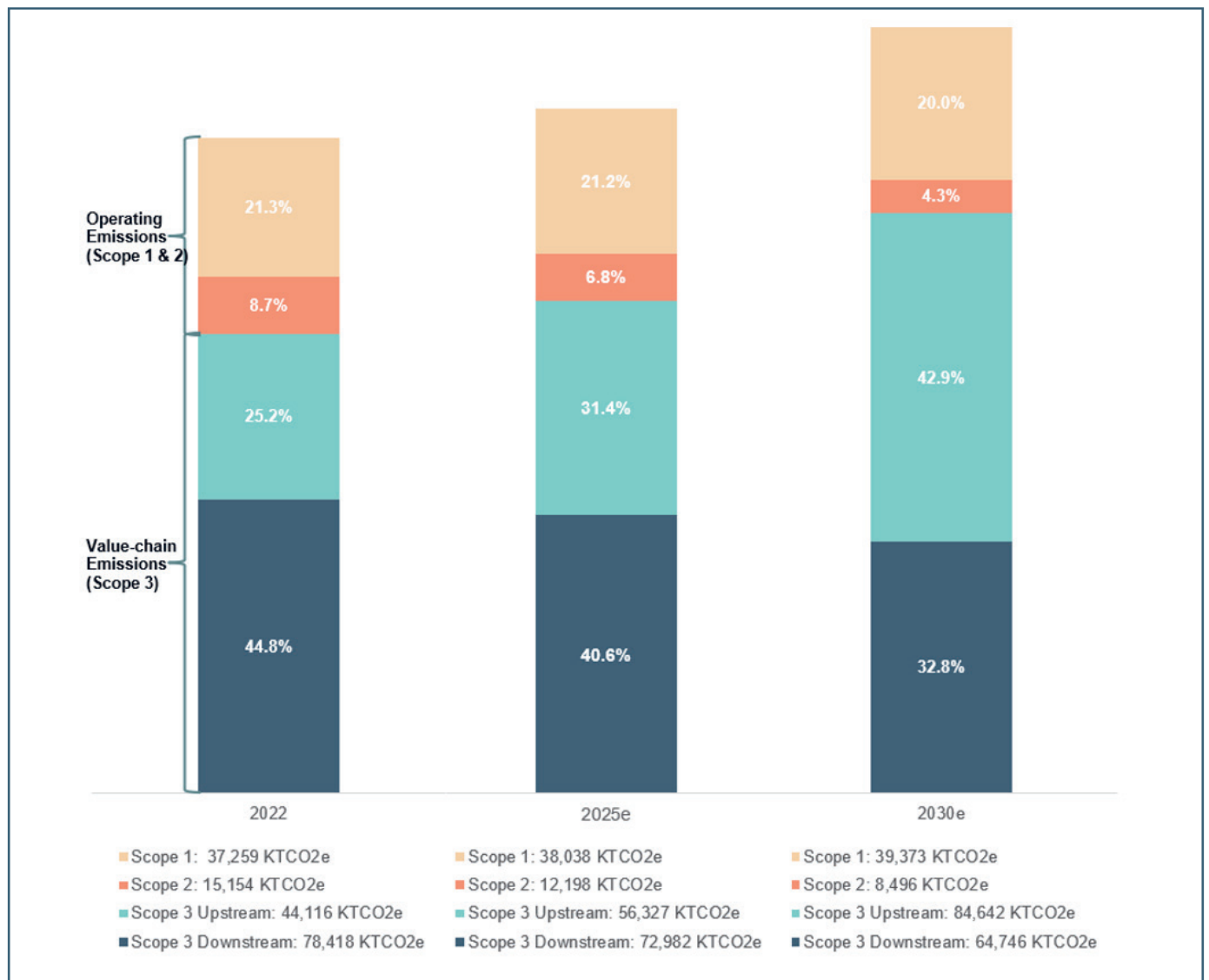


Figure 6: Value Chain GhG Emissions (2025e & 2030e) – Percentage Breakdown by Scope.
Source: SABIC's Climate Change 2023 CDP Answers; Planet Tracker Calculations.

8

Be aware that this estimation does not account for the sale of Hadeed.

Company Targets

In 2021, SABIC publicly committed to ensuring that all its operations will be carbon neutral by 2050. To realise these ambitions, SABIC’s Carbon Neutrality Roadmap includes an interim target of reducing operating GHG emissions (i.e., Scope 1 and 2) by 20% by 2030 from a 2018 baseline.

Accordingly, in addition to circular and renewable feedstock, the Roadmap outlines five primary pathways to achieving carbon neutrality, as shown in Figure 7.

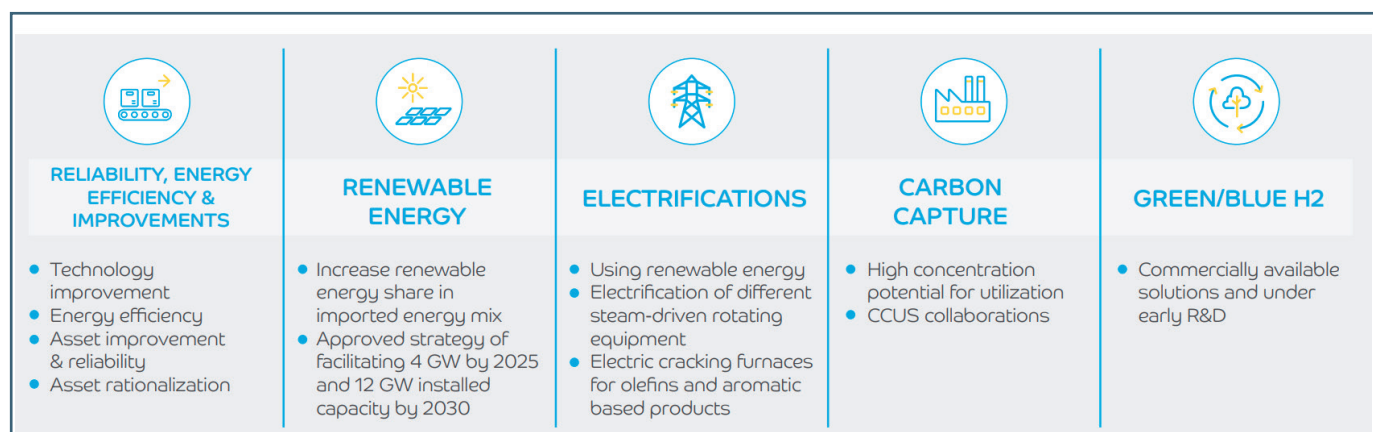


Figure 7: SABIC's Carbon Neutrality Roadmap - Key Actions; Source: SABIC 2022 Sustainability Report.

Based on Planet Tracker’s calculations, SABIC reduced its absolute Scope 1 and 2 GHG emissions by 7.6% between 2018 and 2022, primarily through energy efficiency improvements and the incorporation of renewable power, as disclosed by the company⁹. This achievement represents 38% of its target, leaving 62% to be accomplished by 2030.

However, despite 70% of SABIC’s carbon footprint originating from its value chain, the company has not set a specific target for Scope 3 emissions. Instead, SABIC expresses a broad intention to reduce indirect emissions along its value chain through strong collaborations with its partners. Nevertheless, as our assessment in the next section will reveal, SABIC provides limited information regarding these engagements.

For SABIC to align with the Paris Agreement ambition of reaching Net Zero by 2050, and thus achieve a 1.5°C alignment by 2030, the company should reduce its Scope 3 emissions by 42% by 2030, as suggested by the SBTi¹⁰. Consequently, SABIC should reduce its total 2022 emissions by 33% in absolute terms by 2030. However, the company’s historical trend, as presented in Figure 8, indicates that without additional mitigation measures, it is likely to increase its emissions by 13%.

⁹ Disclosed by SABIC in its 2022 Sustainability Report.

¹⁰ This is SBTi’s recommended reduction in absolute emissions when a sectoral pathway is not already established.

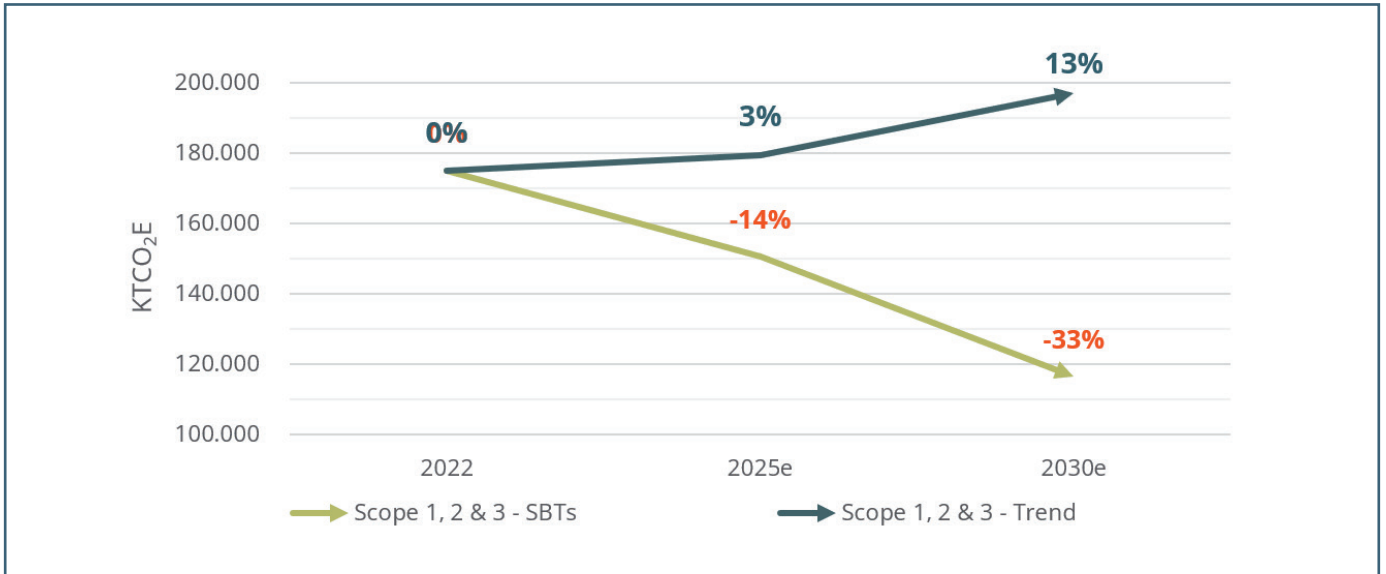


Figure 8: SBTs¹¹ vs Extrapolated Trends. Source: SABIC's Climate Change CDP Answers 2022, SBTi targets and Planet Tracker Calculations.

In summary, historical trends indicate stagnation in reducing GHG emissions, missing the 2030 alignment with a 1.5°C pathway.

Hence, alignment with Paris-agreed targets will require further assessments of the company's initiatives, as covered in the following sections.

¹¹ Reduce Scope 1 and 2 by 20% in absolute terms from a 2018 baseline and reduce Scope 3 by 42% from a 2022 baseline, both by 2030.

Policy and Governance

ENGAGEMENT AND INFLUENCE

Suppliers' Engagement¹²

SABIC's supplier engagement involves two main campaigns: one focused on information collection to understand supplier behaviour, and the second aimed at incentivising suppliers to change their behaviour.

The first campaign covers 35% of SABIC's total procurement spend (direct and indirect) and 15% of supplier-related Scope 3 emissions. Central to this campaign is SABIC's Supplier Lifecycle Management (SLM) Programme, which is used to vet new suppliers and verify ongoing compliance. To ensure a sustainable procurement strategy, SABIC aims to embed sustainability into its procurement processes and policies, and has recently joined [Together for Sustainability \(TfS\)](#)¹³. By joining TfS, SABIC aims to accelerate the implementation of its sustainable procurement strategy and ESG goals. This initiative supports industry collaboration, especially in increasing transparency in upstream value chains aimed at boosting reductions in Scope 3 GHG emissions. However, it is notable that SABIC is not currently evaluating suppliers against this criterion.

The second campaign aims to influence and incentivise 15% of total procurement spend (direct and indirect) and 35% of supplier-related Scope 3 emissions. SABIC aims to ensure an uninterrupted supply through four initiatives:

1. Uninterrupted Orders Initiative: Automating repetitive activities under the Uninterrupted Orders (UIO) initiative to enhance efficiencies in order management, fulfilment, and documentation, leading to touchless operations with minimal human intervention in 2021.

2. Enhancement of Logistics Infrastructure: Partnering with SABIC Supply Chain Services (SSCS) in Saudi Arabia to improve logistics infrastructure from manufacturing sites to delivery points, leveraging economies of scale.

3. Securing Shipping Capacities: Securing space on dedicated vessels and using a category-sourcing strategy to reduce reliance on the spot market, supported by the "Fixed Cash Cost Plus" programme to strengthen partner relationships.

4. Digital Initiatives: Including electronic document submission to banks with automatic notifications and enhancing the Jeddah Chamber of Commerce platform for electronic legalisation to improve efficiency.

¹² Source: SABIC Climate Change CDP Response 2022 - C12. Engagement

¹³ 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 Chemis-

try 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 as described in Annex I. For more details see - [Climate Transition Mismatch](#).

While these initiatives enhance efficiency, they do not disclose the impact on GHG emissions reduction or measures of success. Participation in the TfS initiative is a positive step, but the real impact on reducing Scope 3 emissions remains to be determined. Therefore, while SABIC claims to collaborate with suppliers to improve sustainability, investor transparency of specific examples and outcomes of such initiatives

are lacking. Comparatively, other companies, like Bayer, implement a more transparent and structured approach to improving sustainability practices within their supply chains¹⁴.

Customers' Engagement

SABIC engages with its customers to incorporate their feedback into product development. Examples include:

- **Microsoft:** Collaboration to create the first Microsoft Ocean Plastic Mouse featuring an exterior shell containing 20% recycled ocean plastic.
- **Polyray:** Partnership to introduce certified renewable polycarbonate into eyewear applications, using SABIC's LEXAN™ polycarbonate resin.
- **Nudac:** Collaboration to introduce certified renewable polycarbonate into building and construction applications.
- **Estée Lauder Companies:** Development of advanced beauty tube packs using certified circular polyolefins from SABIC's TRUCIRCLE™ portfolio.
- **Tesco:** Launch of plastic packaging made from recycled flexible packaging, available in Tesco stores.

- **IRPLAST S.P.A.:** Use of certified circular and renewable SABIC® PP polymers for new S-BOPP film solutions.
- **St. Johns Packaging and Kingsmill:** Introduction of bread bags using SABIC's certified circular polyethylene for packaging Kingsmill No Crusts 50/50 bread.

While these examples are encouraging, more transparent reporting on how this engagement translates into tangible improvements and environmental impact would be ideal, particularly regarding climate transition.

¹⁴ For more details see Bayer's four-step management process (supplier awareness, nomination, performance evaluation, and development) to improve sustainability practices within its supply chain -> Bayer's CTA [link](#).

Influence on Policymakers

SABIC engages with various climate policies in the EU and Saudi Arabia, but its positions are sometimes limited and unclear. In its 2022 CDP Climate Change Disclosure, the company reported direct engagement with the EU Emissions Trading System and the EU's Energy Efficiency Directive, without stating its positions on these policies. SABIC supported the introduction of energy efficiency standards in Saudi Arabia and advocated for a clean energy generation policy framework in Saudi Arabia in its 2021 CDP Climate Change Disclosure. However, SABIC's engagement with the energy transition from 2021-2023 appears limited. In its 2023 CDP Climate Change Disclosure, the company reported engagement in clean energy generation in Saudi Arabia but did not state a position on the energy transition.

It is also worth acknowledging that KSA owns 70% of the company, and therefore, KSA policy would have a high influence on SABIC's own policy. Such influence might not always be transition-positive – see “[Russia, Saudi Arabia, Iran & petrochemical industry stall plastics treaty: Critics](#)”

We commend SABIC for publishing its memberships of industry associations in its 2022 Sustainability Report, but it does not provide a detailed account of these associations' positions and engagement activities on climate policy¹⁵. Furthermore, SABIC is a board member of the European Chemical Industry Council (Cefic), which is highly engaged in EU climate policy but holds positions that are partially misaligned with the Paris Agreement goals.

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Examples of good practice can be found in our [Climate Transition Mismatch](#) paper and [Best Practice Guidance](#).

MANAGEMENT ALIGNMENT

Sustainability Targets Oversight

A. The Supervisory Board

The Board of Directors at SABIC holds ultimate responsibility for the company's sustainability strategy and performance. Assisted by the Board Risk and Sustainability Committee (BRSC), the Board oversees the development and implementation of sustainability policies, ensuring alignment with the company's strategic objectives and regulatory requirements. The BRSC periodically reviews sustainability actions and decisions to ensure the company stays on track with its sustainability targets. The effectiveness of the Board in managing these procedures is reviewed quarterly and annually, adopting corrective measures when necessary.

While the committee's role in monitoring ESG risks is crucial, there is limited information on how frequently these risks are reassessed and the specific actions taken based on these assessments. The BRSC's effectiveness would be better demonstrated with detailed records of meetings and subsequent decisions impacting sustainability.

Management Compensation

In 2023, SABIC implemented a performance-based compensation system that includes sustainability metrics as a key component. This aims to ensure that executives are incentivised to achieve sustainability goals alongside financial and operational performance targets. The system introduces a unified balanced scorecard comprising both financial and non-financial performance measures. The 2023 scorecard includes two ESG-related objectives: 1) a reduction in GHG emissions and 2) an internal measurement related to the safety, health, and environmental performance of SABIC globally. However, the exact percentage that sustainability targets account for in the overall performance evaluation is not disclosed.

While SABIC's compensation structure includes sustainability targets, the exact metrics used to evaluate performance against these targets are not clearly defined. [SABIC's 2023 Comprehensive Annual](#)

B. The Management

SABIC's executive management team, led by the Chief Executive Officer (CEO), is responsible for executing the sustainability strategy set by the Board. The CEO, along with the Executive Committee, integrates sustainability goals into the company's overall business strategy, sets specific targets, monitors progress, and reports performance to the Board. This includes regular assessments and updates to sustainability policies to ensure they remain relevant and effective in achieving the company's long-term goals.

While the management's responsibility is clear, there is a lack of concrete examples showing how sustainability targets are enforced and monitored across the company. Details on how specific sustainability initiatives are tracked and their progress reported to the Board would provide a clearer picture of management accountability and effectiveness.

[Report](#) mentions a performance-based system, but specific examples of how executive compensation is adjusted based on the achievement or failure of sustainability goals are missing as well. Transparency in how sustainability performance influences remuneration would strengthen the credibility of SABIC's commitment to integrating sustainable practices.

While SABIC has established a framework for engaging with suppliers, customers, and policymakers, and has mechanisms for management oversight and compensation linked to sustainability, there is little transparency. Specific examples and measurable outcomes of these engagements and policies would provide a clearer assessment of the company's effectiveness in driving sustainability. The current documentation tends to highlight intentions and memberships rather than providing a critical evaluation of actual impacts and progress.

Risk Analysis

FINANCIAL IMPACT

Our analysis delves into the significant financial implications arising from external policy drivers, physical impact drivers, and market dynamics.

External Policy Drivers¹⁶

SABIC's financial exposure to external policy drivers, such as climate policies and carbon pricing mechanisms, is substantial. The company faces regulatory risks associated with climate change, primarily due to non-compliance with the EU Emission Trading Scheme (ETS) and the newly launched Chinese ETS. The volatile cost of ETS allowance units and stringent compliance requirements increase operational costs, with a potential financial impact estimated at SAR 400 million (USD 106.4 million)¹⁷. This figure is based on SABIC's European scope 1 GHG emissions and potential penalties for non-compliance (priced at EUR 100 per ton of carbon or USD 107.3¹⁸).

Physical Impact Drivers¹⁹

According to the company, SABIC's operations are increasingly vulnerable to physical impact drivers, notably extreme weather events. The company's production facilities face risks from rising temperatures, severe storms, and flooding, which could disrupt operations and supply chains. For example, sea level rise poses a significant risk to SABIC's facilities in coastal areas of Saudi Arabia. A consultancy study commissioned by SABIC identified that several manufacturing sites would be vulnerable to flooding due to sea level rise, with potential financial impacts amounting to SAR 375 million (USD 99.8 million)²⁰. This includes costs related to reduced production capacity, damage to assets, and increased operating costs.

Market Impact Drivers²¹

The market's transition from fossil fuels to more sustainable energy sources presents both risks and

opportunities for SABIC. The company's market risks, as estimated by SABIC, are twofold²²:

1. Reputation Risk: Increased stakeholder concern or negative feedback can decrease revenue due to reduced demand for products and services. SABIC's potential financial impact from reputation risk is estimated at SAR 375 million (USD 99.8 million)²³, primarily driven by customer and investor expectations for transparency and sustainability performance.

2. Shifts in Consumer Preferences: Changing customer preferences towards products with a lower carbon footprint could erode market share. This risk is particularly prominent in European markets, with an estimated financial impact of SAR 375 million (USD 99.8 million)²⁴.

However, as the global demand for petrochemical products evolves, SABIC could adapt its portfolio and invest in sustainable technologies. The company's reduction in its energy intensity by 25% by 2025 compared to 2010 levels is projected by SABIC to yield annual savings of up to USD 500 million (SAR 1.9 billion). Nevertheless, the company acknowledges that achieving these targets requires substantial investments in energy efficiency projects and innovation, placing additional financial pressure on the company.

In summary, SABIC's financial exposure to climate-related risks is significant, with a combined potential impact exceeding SAR 1.15 billion or USD 305.9 million. Hence, the regulatory and market dynamics highlight the need for robust compliance and proactive engagement with stakeholders to mitigate these risks. Planet Tracker recognises that management has to evaluate different government policies and regulatory requirements in countries in which it is active, ensuring it does not lag, nor run too far ahead, of environmental policy. See ["The Challenges of a Credible Transition Pathway and How to Deliver It"](#).

16 Source: SABIC 2023 CDP Climate Change Response – Section C2.3a.

17 At an exchange rate of SAR 1 = USD 0.2660 at the end of 2022 - the year of the disclosure.

18 At an exchange rate of EUR 1 = USD 1.0726

19 Source: SABIC 2023 CDP Climate Change Response – Section C2.3a.

20 At an exchange rate of SAR 1 = USD 0.2660 at the end of 2022 - the year of the disclosure.

21 Source: SABIC 2023 CDP Climate Change Response – Section C2.3a.

22 While the quantified financial impact is mentioned twice in this section, we assume is referring to the same risk – i.e., a total Market Impact of SAR 375 million.

23 For context, Planet Tracker finds this to be a relatively low estimate since annual sales in 2023 were SAR 141bn (USD 40bn) with assets of SAR 294bn (USD 78bn) and an estimate of its brand value of USD 4.9bn.

24 Refer to the previous footnote.

RISK MANAGEMENT

Following the identification and disclosure of main climate transition risks and opportunities, SABIC has outlined a series of initiatives aimed at risk mitigation and opportunities capitalisation.

External Policy Risk Management

To manage the risks associated with compliance with ETS regulations, SABIC has implemented a dual approach:

1. Compliance Safety Margin Buffer: SABIC uses a compliance safety margin buffer in the UK, Netherlands, and Germany by surrendering additional quantities of allowances to the authorities. This approach mitigates the risk of under-surrender.

2. GHG Emissions Reduction and Energy Efficiency Projects: SABIC aims to actively reduce its GHG emissions in its European operations through energy efficiency projects. One notable example is the steam-trap management system implemented in 2018 at a manufacturing site in Spain, saving approximately 300,000 GJ of energy per year. This system is now also in place at other sites, such as Bergen op Zoom and Geleen in the Netherlands.

The cost of response to this risk is estimated by SABIC at SAR 9.4 million (USD 2.5 million)²⁵. This includes the administrative costs of compliance, such as monitoring and reporting, trade memberships, and representation to regulators, but not the actual cost of upgrading the facilities. Moreover, the company does not disclose the approximate range of emissions that these projects mitigate.

Physical Impact Management

SABIC's approach to managing the physical impacts of climate change, particularly sea level rise, includes:

1. High-Level Risk Analysis: SABIC has completed a high-level analysis of sea level rise risk for its manufacturing facilities in coastal areas of Saudi Arabia.

2. Collaboration for Detailed Studies: SABIC plans to conduct more detailed studies on sea level rise implications in collaboration with regional authorities and other manufacturing companies in Yanbu and Jubail. This collaborative effort aims to develop comprehensive strategies to mitigate long-term risks.

The cost of response is estimated by management to be SAR 0.8 million (USD 0.2 million). This covers the investment in methodological studies and the retention of external expertise necessary for detailed risk assessments, but not the cost of the risk management upgrades needed. According to the company, this initial high-level analysis of sea level rise risk provides a foundation for more targeted and collaborative efforts to protect SABIC's coastal facilities from future climate impacts.

Market Impact Management

SABIC's strategy to manage market impact risks focuses on maintaining its reputation and adapting to shifts in consumer preferences:

1. Reputation Management:

- **Transparency and Reporting:**

SABIC actively reports its sustainability performance and engages with stakeholders through platforms such as the CDP Supply Chain program.

- **External Engagement:**

Membership in organizations like the WBCSD and participation in global sustainability events like the UNFCCC COP process and Abu Dhabi Sustainability Week.

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At an exchange rate of SAR 1 = USD 0.2660 at the end of 2022 - the year of the disclosure.

The cost of response is estimated at SAR 3.8 million (USD 1 million). This includes expenses related to sustainability reporting, developing carbon strategies, and engaging with external stakeholders.

2. Adaptation to Consumer Preferences:

- **Innovative Products:** SABIC develops and markets products with lower carbon footprints to meet the demands of environmentally conscious consumers. For example, SABIC's Certified Renewable polyethylene and polypropylene products, created with renewable feedstock, significantly reduced CO₂ emissions, according to the company.

The cost of this response is estimated at SAR 10 million (USD 2.7 million). This covers investment in R&D and human resources necessary to develop sustainable products. Examples include:

- **Transportation:** SABIC developed the ultra-high-melt-strength polypropylene resin (PP-UMS HEX17112), which reduces car mat density by 10% and allows for the use of reclaimed materials.
- **Packaging:** SABIC's Certified Renewable polyethylene and polypropylene products offer the same performance as conventional products but with a significantly lower carbon footprint.

Overall, SABIC's proactive measures in regulatory compliance, physical impact analysis, and market adaptation demonstrate a robust approach to mitigating financial impacts and leveraging sustainability opportunities. However, there is a need for more detailed reporting on potential outcomes to provide a clearer assessment of the company's effectiveness in mitigating these risks. Transparency in the financial implications of risk management, including the cost of upgrades and changes as well as the potential impact on emissions, would enhance the credibility of SABIC's commitment to sustainability. Such action, would place SABIC in the top tier (Tier 3) of investor confidence when assessing climate transition plans. See ["The Challenges of a Credible Transition Pathway and How to Deliver It"](#).

Strategic Assessment

CAPITAL ALIGNMENT

SABIC's climate transition strategy requires substantial investments in sustainability and transition-related capital expenditures (capex). These investments are crucial for achieving the company's ambitious climate targets and mitigating associated risks.

According to the company, from 2022 through 2030, the major focus areas in SABIC's Carbon Neutrality strategy are energy efficiency, renewable energy, and CCUS, with USD 3 to 4 billion anticipated capex. Capex allocation towards Process Optimisation, including Reliability, Energy Efficiency and Improvements, is expected to be 60% by 2030, while capex allocation towards Electrification is projected to be 5% by 2030.

To minimise these capex demands and utilise capital efficiently, SABIC intends to replace fossil fuels with zero-carbon alternatives, primarily employing existing technologies and leveraging power purchase agreements (PPAs) to replace grid-based electricity. The main strategic actions to reduce its operating carbon emissions by 20% by 2030 include:

1. Energy Efficiency Projects: SABIC has committed to reducing its energy intensity by 25% by 2025 compared to 2010 levels, projected to yield annual savings of up to USD 500 million (SAR 1.9 billion). Linked to this ambition, the furnace-cleaning project at the Petrokemya-North facility resulted in annual energy savings of 315,000 GJ by improving heating efficiency by 3.5%. Similarly, the Mechanical Vapor Recompression system at the Selkirk plant reduced energy use by 105,000 GJ annually, lowering site energy intensity by 5%. While these projects require substantial investments, specific quantified disclosures regarding these investments are not provided. Also, the absolute emissions reduced by these projects are not disclosed either.

2. Renewable Energy Investments: SABIC's Renewable Energy Strategy, approved in 2018, aims to procure 50% of its electricity needs from renewable sources by 2030. This strategy includes feasibility studies of large-scale renewable energy projects. SABIC is actively pursuing large-scale solar energy installations

in its industrial hubs in Jubail and Yanbu, with an initial phase targeting up to 400 MW installations of solar PV. The estimated savings in energy costs from these projects are around USD 140 million annually. Again, the individual cost of the projects and the expected emissions reductions are not disclosed.

3. Saudi Energy Efficiency Program (SEEP): SABIC is committed to SEEP and is working with various virtual teams established by the Energy Efficiency and Carbon Management (EECM) program to develop a roadmap supporting the government's 2025 SEEP goals. In 2022, SABIC invested USD 1.38 billion into 80 affiliate projects and 8 mega-projects, with planned efficiency optimisations and the decommissioning of energy-intensive sites by 2025. These efforts are expected to reduce about 7,200 KTCO₂e by 2030, which would align the company with its Carbon Neutrality goals.

4. Carbon Capture, Utilization, and Storage (CCUS): SABIC is investing in CCUS technologies and has partnered with the Circular Carbon Economy National Program (CCE-NP) to create the world's largest carbon capture utilisation hub in Jubail, aiming to capture up to 2,000 KTCO₂e annually by 2030, leveraging national infrastructure facilitated by the Saudi government.

5. Electrification and Low-Carbon Hydrogen Solutions: SABIC is focusing on the electrification of its operations and the development of low-carbon hydrogen solutions. Electrification projects include using renewable energy and electrifying steam-driven rotating equipment. These efforts are anticipated to contribute 0.8% and 0.5%, respectively, to the company's 2030 GHG emissions reduction target.

Overall, SABIC's capital alignment demonstrates a comprehensive approach. The company's substantial investments in energy efficiency, renewable energy, and carbon capture technologies highlight its commitment to achieving sustainable growth and long-term value creation. Nevertheless, a more detailed disclosure of individual project costs and expected emissions reductions versus targets would provide a clearer picture of the company's progress. Such action would place SABIC in the top tier (Tier 3) of investor confidence when assessing climate transition plans. See ["The Challenges of a Credible Transition Pathway and How to Deliver It"](#).

TRANSITION APPRAISAL

Planet Tracker analysed SABIC's Climate Transition strategy, assessing its GHG emissions evolution and evaluating its alignment with the Paris Agreement. In 2021, SABIC publicly committed to ensuring carbon neutrality by 2050, outlining an interim target of reducing operating GHG emissions (Scope 1 and 2) by 20% by 2030 from a 2018 baseline.

Based on our analysis, SABIC reduced its absolute Scope 1 and 2 GHG emissions by 7.6% between 2018 and 2022, primarily through energy efficiency improvements and renewable power incorporation. However, the company's historical trend indicates potential challenges in achieving the remaining reductions needed by 2030 without additional mitigation efforts.

To achieve its transition targets, SABIC has identified three key strategic actions focusing on energy efficiency, renewable energy, and carbon capture and storage (CCUS), with an anticipated capex required of USD 3 to 4 billion by 2030. The company's capex allocation emphasises process optimization (60%) and electrification (5%) by 2030, aiming to replace fossil fuels with zero-carbon alternatives primarily through existing technologies and power purchase agreements (PPAs).

Other key highlights of SABIC's transition strategy include:

- Energy Efficiency Projects
- Renewable Energy Investments
- Saudi Energy Efficiency Program (SEEP)
- Carbon Capture, Utilization, and Storage (CCUS)
- Electrification and Low-Carbon Hydrogen Solutions

Despite these commendable efforts, SABIC lacks a specific target for Scope 3 emissions, which constitute 70% of its total footprint. The company's broad intention to reduce indirect emissions through supplier and customer engagement is promising but requires more detailed and transparent reporting on outcomes and impacts.

Furthermore, SABIC's financial exposure to climate-related risks is significant, with a combined potential impact exceeding SAR 1.15 billion (USD 305.9 million). The company's proactive measures in regulatory compliance, physical impact analysis, and market adaptation demonstrate a robust approach to mitigating financial impacts and leveraging sustainability opportunities. However, transparency in the financial implications of risk management, including the cost of upgrades and changes as well as the potential impact on emissions, would enhance the credibility of SABIC's commitment to sustainability.

Planet Tracker expects SABIC to achieve its Scope 1 and 2 targets in the long term, still, the lack of Scope 3 targets aligns the company with a 2°C warming scenario by 2030.

Planet Tracker concludes that SABIC would align with a 2°C pathway by 2030²⁶.

All Climate Transition Analyses undertaken by Planet Tracker are sent to the company for comment before publication, allowing management to respond. SABIC did not respond to our requests for comments sent on the 15th of July 2024, and the 7th of August 2024.

²⁶ Based on the data accessed by Planet Tracker until June 2024.

Annex I

German Chemical Industry Association (VCI).

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

European Chemical Industry Council (Cefic).

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

China Petroleum and Chemical Industry Federation (CPCIF).

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

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ABOUT PLANET TRACKER

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

PLANET TRACKER'S CLIMATE TRANSITION ANALYSIS

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

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

Data Analysis: Ailish Layden, Research Associate, Planet Tracker

Collaborators: John Willis, Director of Research, Planet Tracker
Saidrasul Ashrafkhanov, Associate Analyst, Carbon Tracker

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