

SBTi targets: science-based climate targets for companies and supply chains

SBTi targets are climate targets that have been set and validated in accordance with the requirements of the Science Based Targets initiative (SBTi). They give companies a methodologically defined pathway for reducing greenhouse gas emissions to an extent compatible with the Paris Agreement. They are becoming increasingly important for buyers and supply chain managers, as customers, investors and regulations demand decarbonisation of the entire supply chain.

Key facts

- SBTi targets are emission reduction targets validated by the Science Based Targets initiative based on scientific criteria.
- They typically cover Scope 1, Scope 2 and material portions of Scope 3 emissions, with Scope 3 frequently accounting for the largest share in the manufacturing industry.
- Companies must, among other things, define a near-term target (in practice usually 5 to 10 years) and a net-zero target.
- Validation requires a complete greenhouse gas inventory prepared in accordance with recognised standards.
- For buyers, supplier participation in SBTi is becoming an increasingly relevant performance indicator in supplier evaluations.
- Targets are normally reviewed every few years and adjusted in the event of material changes to the business model.

Definition: SBTi targets

SBTi targets are greenhouse gas reduction targets that a company formulates and that are reviewed and confirmed as "science-based" by the Science Based Targets initiative. They follow decarbonisation pathways compatible with the goal of limiting global warming to well below 2 °C, preferably 1.5 °C.

Background: Science Based Targets initiative

The Science Based Targets initiative is a joint initiative of several international organisations from the environmental and sustainability sector. It defines criteria, methods and sector pathways from which companies derive emission targets, and maintains a public register of validated companies. The initiative distinguishes between near-term targets (typically a time horizon of 5 to 10 years) and long-term or net-zero targets (frequently with a 2050 horizon).

Distinction from other climate targets

Unlike self-formulated "climate targets" without external review, SBTi targets are subject to a defined validation process with documented methods and criteria. They are not the same as climate-neutral claims based on offsetting certificates: the focus is on emission reductions actually achieved in the

company's own value creation and supply chain. Within the SBTi framework, offsetting plays at most a subordinate, clearly regulated role in target achievement.

Methods and approach: how companies derive SBTi targets

The path to validated SBTi targets follows a standardised process: emissions accounting, target derivation using sector methodology, formal submission and validation, followed by annual reporting. For companies with significant Scope 3 shares, additional requirements apply regarding their measurement and target-setting.

Step 1: Build the emissions inventory

The basis is a greenhouse gas inventory prepared in accordance with recognised accounting standards, structured by Scope 1 emissions (own combustion and processes), Scope 2 (purchased energy) and Scope 3 (value chain). In practice, Scope 3 Category 1 (purchased goods and services) is dominant for manufacturing companies and is frequently decisive for target selection. The data basis typically comes from energy bills, material flows and supplier data.

Step 2: Target derivation using sector methodology

The SBTi provides sector-specific pathways, for example for energy-intensive industries, transport or buildings. From these pathways, companies derive minimum reduction rates, typically in the range of about 4 to 5 percent linear per year for 1.5 °C-compatible near-term targets. In addition, for large companies the initiative requires the setting of a target for the engagement of suppliers or sales customers in their own SBTi targets.

Step 3: Submission, validation and reporting

After internal approval by management, the target documentation and emissions inventory are submitted for review; the process takes several months in practice. After validation, the company commits to annual public reporting on progress. Material changes, such as acquisitions or shifts in the emissions structure, make a target review necessary.

Key KPIs: metrics around SBTi targets

SBTi targets are defined in measurable terms and require continuous performance monitoring. For buyers, additional internal metrics come into play that reflect supply chain decarbonisation.

Key metrics on the company side

Key indicators are absolute and intensity-based emission trends (e.g. CO₂e per unit produced), the degree of target achievement relative to the target trajectory, and the share of Scope 3 backed by robust primary data. The coverage of the emissions inventory by verified data determines the meaningfulness of reporting.

Supplier-related metrics for procurement

In procurement, the share of procurement volume with suppliers holding their own validated or formally committed climate targets has established itself as a practical indicator. In addition, emissions intensity per unit purchased, the response rate to emissions data requests, and the share of suppliers with an existing emissions inventory are used. These values can be readily embedded in supplier evaluations and risk classes.

Risks and controls: typical pitfalls with SBTi targets

The greatest risks lie in incomplete data, over-ambitious targets without an implementation plan, and the discrepancy between corporate targets and actual procurement behaviour. Without systematic controls, reputational damage as well as liability and greenwashing risks threaten in the regulatory environment.

Data quality and Scope 3 as a weak point

Scope 3 emissions are frequently estimated using industry averages rather than supplier data; this reduces meaningfulness and can later trigger correction requirements. A staged approach has proven effective: hot-spot analysis, targeted data requests to significant suppliers and gradual expansion of primary data. A structured procurement data model helps to manage consumption, material and supplier data consistently.

Integration with procurement governance and contracts

Climate targets remain ineffective if operational procurement works against them, for example through short-term awards based solely on unit price including alloy surcharge or transport costs. Sensible controls are climate criteria in enquiries, target requirements in the preferred supplier programme, review meetings with strategic suppliers, and contractual commitments to data transparency and reduction plans. Procurement policy compliance and contract compliance provide points of reference here.

Greenwashing and regulatory risks

Publicly communicated climate targets are subject to increasing requirements regarding verifiability; insufficiently substantiated statements can have legal consequences as misleading advertising or non-financial reporting with deficiencies. Companies should therefore always link statements to validated targets and documented progress, and have legal assessments reviewed on a case-by-case basis.

Current developments: SBTi targets in the regulatory and market context

SBTi targets have evolved from a voluntary signal to a de facto market access criterion. Major customers increasingly demand validated or at least binding climate targets from suppliers, and regulations on sustainability reporting increase the data tracking pressure along the supply chain.

Regulatory framework in the EU

Reporting obligations for sustainability reporting and due diligence obligations along the value chain increase the pressure to systematically capture suppliers' emissions data. Concrete obligations and exemptions depend on size classes, sectors and place of establishment; the assessment in individual cases should be legally reviewed. For suppliers this means: even without their own reporting obligations, they are drawn into the data cycle through customer enquiries.

Requirements from the customer base and the market

In tenders and supplier self-disclosures, SBTi targets or equivalent, binding climate targets are now a frequent evaluation criterion, sometimes with a weighted share in the award decision. Suppliers who cannot deliver here risk exclusion or disadvantage in practice, regardless of price and quality.

Technical support through digitalisation

Emissions data can be collected more efficiently if supplier master data, procurement volumes and consumption figures are digitally integrated. Supply chain mapping helps to identify significant emission sources in lower supply chain tiers, and forecast management improves the reliability of future emissions projections. Standardised data interfaces to suppliers reduce the effort of recurring queries.

Typical metrics

Procurement volume with SBTi suppliers: typically 20–60%

Share of procurement volume with suppliers holding validated or committed targets; benchmark varies greatly by sector

Annual reduction rate: approx. 4–5% linear

usual minimum rate for 1.5 °C-compatible near-term targets, sector-specific deviations apply

Scope 3 coverage: > 67% typically

minimum coverage of the Scope 3 volume by target-setting, varying in practice depending on methodology

Supplier data response rate: > 80% targeted

Share of responded emissions data requests to significant suppliers

Practical example

A mid-sized mechanical engineering company with around 400 employees was asked by two major OEM customers to present a validated climate target by the end of the following year. Procurement led the project together with energy management and permanently embedded climate criteria in the procurement processes.

- Establishing a Scope 1, Scope 2 and Scope 3 inventory with a focus on the categories "Purchased goods" and "Purchased energy"
- Climate criteria and data requests in all tenders, plus embedding reduction commitments in framework agreements with strategic suppliers
- Including the KPI "procurement volume with suppliers holding a climate target" in the monthly supplier evaluation process
- Prioritising the largest emission drivers (steel, aluminium, electronic components) via a hot-spot analysis followed by individual supplier workshops

Conclusion

SBTi targets are more than a sustainability label: they translate the Paris Agreement into verifiable reduction pathways for the company itself and the supply chain. For buyers, the focus thus shifts from pure price and supplier management to emissions governance through volumes, contracts and supplier selection. The key is integration with existing processes such as supplier evaluation, procurement policy compliance and contract compliance. Those who build data quality and supplier engagement early reduce later effort and query overload. Suppliers, in turn, should regard SBTi targets as a market access requirement and prepare early for the associated data requests.

Frequently asked questions

What does SBTi target mean?

An SBTi target is a greenhouse gas reduction target validated by the Science Based Targets initiative for a company. It specifies by what percentage and by when emissions must be reduced so that the trajectory is compatible with the Paris Agreement. It typically covers Scope 1, Scope 2 and relevant Scope 3 emissions.

How much do SBTi targets and the validation process cost?

Validation fees apply; in practice, depending on company size and the chosen service level, they usually range from four to low five figures per year. In addition, there are internal costs for emissions accounting, data collection and consultancy. Before committing, current fee models should be checked directly with the initiative.

How long does SBTi validation take?

From submission to confirmation, several months typically elapse in practice; processing time depends on capacity utilisation, company size and the quality of the documentation. Preparatory steps such as emissions accounting can take considerably longer, often one to two years. Careful preparation significantly reduces correction loops.

Are small and medium-sized enterprises eligible for SBTi validation?

Yes, there is a simplified validation route for small and medium-sized enterprises, with simplified forms and lower fees. The requirements depend on size classes and sectors and should be checked on a case-by-case basis. For SME suppliers, this route is often the most pragmatic way to start meeting customer requirements.

What is the difference between SBTi targets and climate neutrality?

Climate neutrality is often achieved through offsetting certificates without the company's own emissions falling. SBTi targets, by contrast, require actual, verifiable emission reductions along the value chain; offsetting plays only a clearly limited role in achieving the targets. Investors and major customers therefore generally regard SBTi targets as more robust.