sustainabill

Guide to climate action in the supply chain

This white paper describes how companies can strategize to manage climate emissions from the supply chain and how cloud platform technology can support companies working towards their target achievement.

January 2021

Key Messages

1. Climate action is the new standard for business
2. The main leverage in reducing climate emission lies with the supply chain
3. Focusing on the emission hotspots is key to meeting supply chain targets
4. Supplier engagement is crucial: seven-step approach to implement the strategy
5. Companies benefit from using a cloud platform to meet their targets

Climate action is the new standard for business

Global temperatures are one degree above the pre-industrial levels, on a trajectory which could see that figure rise to three degrees by the end of the century. The consequences of a three degrees rise will be seen within the inundation of coastal cities, with extreme and fluctuating weather, water scarcity, and irreversible loss of biodiversity, including coral reef systems.

While this has been known for a long time, COVID-19 became a wake-up call for many companies, showing how vulnerable their business models are. Companies are now seeking to make supply chains more resilient while setting sustainability goals, with climate change the number one priority. Throughout 2020, around 500 large corporations committed to science-based targets (SBTi, 2020). These are targets in line with the Paris Climate Convention, whose aims are to limit the global average temperature by a maximum of two degrees. The number of such target setting companies has been increased by a factor of 5 since 2017 (Figure 1): tackling climate change appears to be the new standard for businesses.

The European Commission is prioritizing sustainability through its aim to lower carbon emissions. In March, EU Commission President Ursula von der Leyen announced how they were adopting a roadmap for the first-ever European Climate Law as part of the European Green Deal, promising to be climate neutral by 2050.

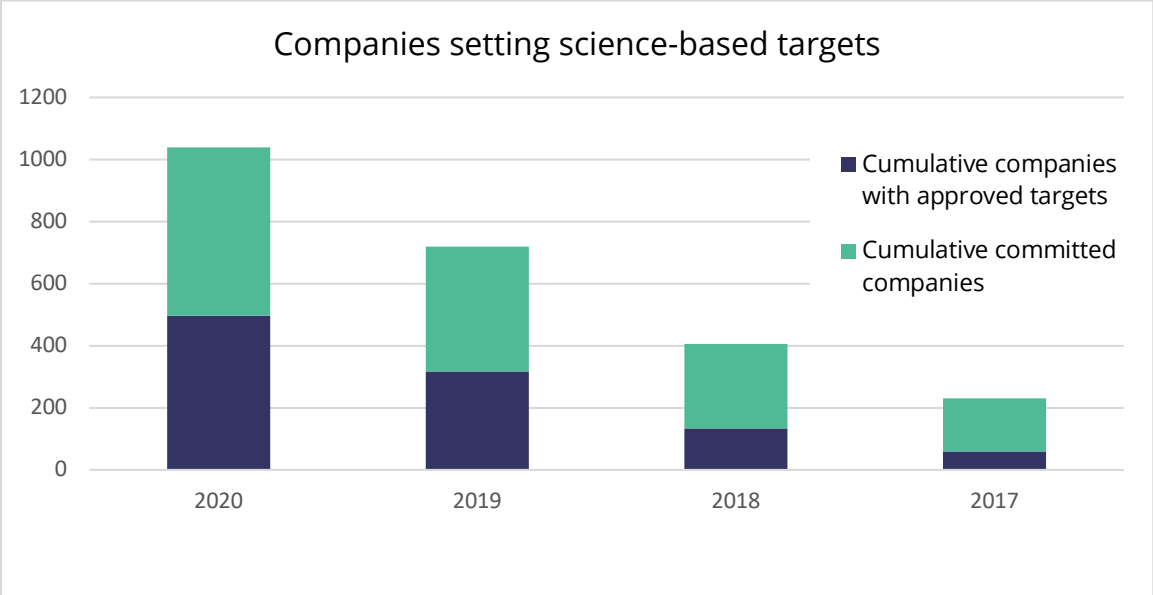

Figure 1: The annual number of corporations with science-based targets has increased by a factor of 5 since 2017 (numbers based on Science-based targets Initiative, 2020).

The main leverage in reducing climate emission lies with the supply chain

Previously, companies have taken climate action focused on direct and indirect emissions from their operations (Scopes 1 and 2, see Figure 2). These emissions are within the direct control of a company, and, thus, are measurable. However, from an OEM or retailer's perspective, most GHG emissions emanate from purchased goods and services (Scope 3.1 emissions in the GHG protocol). Within the automotive sector, up to 90% of production emissions come from within the supply. Across different industries, the share average is around 75% (BMUB, 2017).

The reduction potential for climate emissions within the supply chain are high.

CDP, a global environmental disclosure system for businesses and subnational governments, also highlights this. Following the latest report, mitigating one gigaton (one billion metric tons) of emissions is possible should suppliers raise their purchasing of renewables by 20 percent – equivalent to the combined emissions of Brazil and Mexico.

Hence, companies who wish to take effective action against climate change must include the supply chain. As of today, two-thirds of large corporations have added the supply chain into their science-based reduction targets (SBTi, 2020).

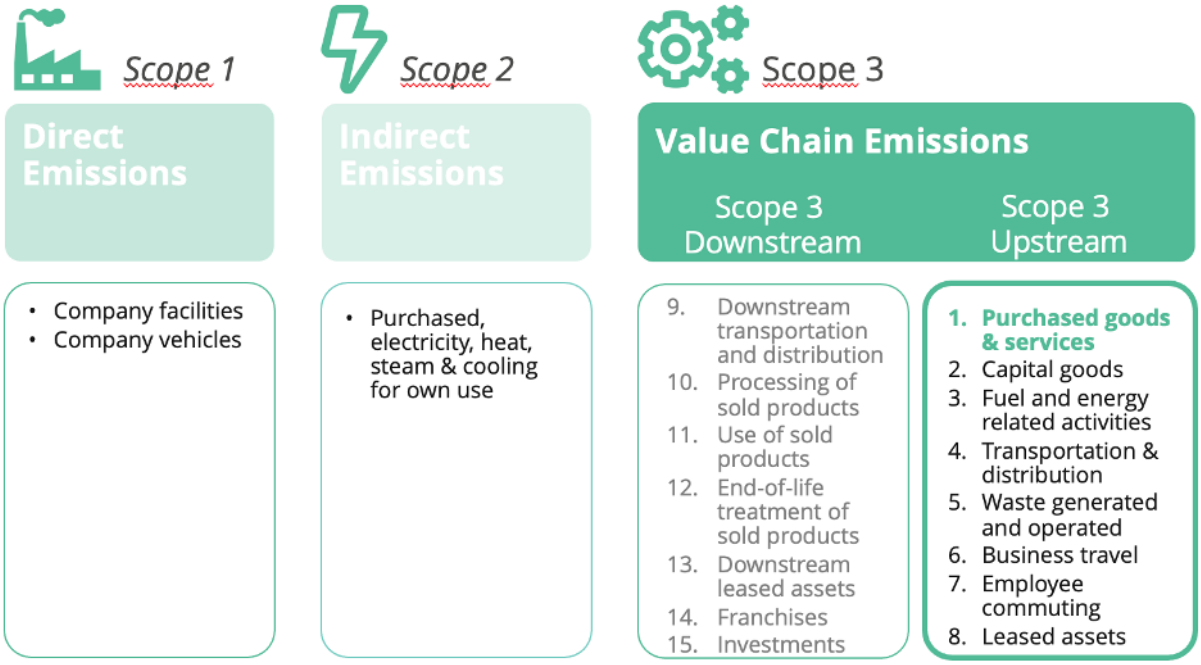

Figure 2: The different categories of the Greenhouse Gas Protocol

Focusing on the emission hotspots is key to meeting supply chain targets

To pro-actively manage and reduce climate emissions from the supply chain, companies should estimate the scope 3.1 footprint and define the baseline. Estimating their scope 3.1 footprint can be a challenging task, should a company have a broad product portfolio. Hence, it is recommended not getting lost by trying to measure everything in detail.

Companies should focus on their understanding of the biggest drivers of their supply chain emissions. Companies with a complex supply chain can use a two-stage selection process: Firstly, they prioritize the product groups with the highest contribution to the scope 3.1 footprint. Secondly, they select products within the product groups which offer the most contributions. These are products which should be analyzed to understand the hotspots within the supply chain's structure (see Figure 3).

The selection process can be based on spending, carbon intensity, amounts sourced, the potential to reduce carbon emission, or a combination of these criteria. The carbon intensity can be assessed by the use of input-output-models, based on trade flows, or by the use of process-specific life cycle databases.

The next step is to establish a target – preferably an ambitious one which aims to limit global warming to 1.5 degrees. To define a target, many corporations join the Science Based Targets initiative (SBTi), which independently assesses and approves companies' targets in line with science-based criteria. Creating and approving a target, however, takes time. Considering the urgency to act on climate change, companies should not wait for the target before taking action.

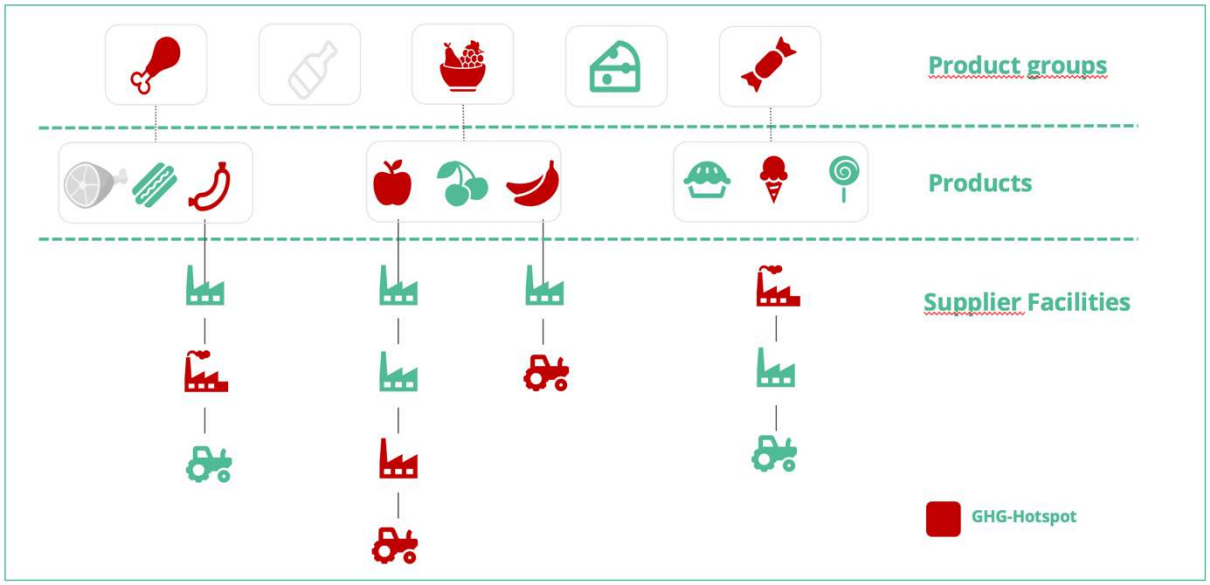

Figure 3: To define and monitor targets, companies should focus on hotspots to avoid getting lost in details.

Supplier engagement is crucial: seven-step approach to implement the strategy

There are different approaches to set targets, depending on their ambitions: Companies can set absolute targets (a reduction in GHG emissions over time) or intensity targets (a reduction in the ratio of GHG emissions relative to a business' metric, such as output, production, or revenue). As an alternative, some companies define a target to leverage suppliers: They commit a percentage of suppliers by spending or emissions, will have targets in place by specific dates.

No matter the choice of target – what is needed is a proper supplier engagement strategy. Companies will only be successful should they achieve continuous collaboration with their suppliers. Based on the best practices from 105 companies, the SBTi provides a framework on how to reduce supply chain GHG emissions.

The framework comprises seven steps, covering a range of topics from strategy development to implementation (see Figure 4). The first step of the framework is to identify relevant suppliers. These are usually those whose products have a notable impact on the scope 3.1 footprint, suppliers with known reduction targets or frontrunners in climate action. Step 2 is to plan the strategy and how to collaborate with suppliers. Possibilities are: 1) enforcing specific measures; 2) providing support with know-how or resources; or 3) inducing competition among suppliers.

To implement the strategy, SBTi recommends combining five steps – communication, collaboration, support, monitoring, and reinforcement.

Our sustainabill team has been active for over three years in helping clients to implement such supplier engagement strategies and improve collaboration along the supply chain. Our experience shows that engaging suppliers, cascading requests and collecting data are key challenges for all five steps of strategy implementation.

Addressing these challenges, modern cloud platform solutions can be extremely helpful.

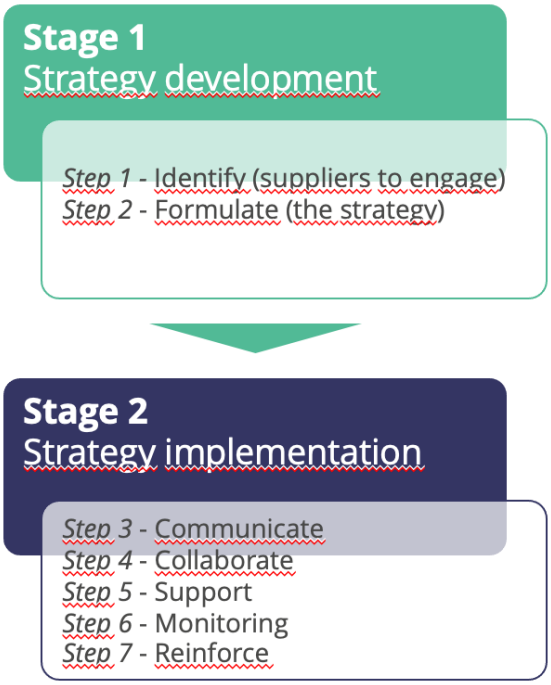

Figure 4: Supplier engagement strategy as proposed by SBTi (based on SBTi, 2018).

Companies benefit from using a cloud platform to meet their targets

The SBTi also describes cloud platforms as "an increasingly important way companies can drive cooperative action" (SBTi, 2018). The sustainabill cloud platform supports retailers, manufacturers, and suppliers across each of the five steps of the implementation phase – from communication to reinforcement – and enables continuously tracking progress against the targets (see Table 1).

Firstly, sustainabill provides mapping capabilities, allowing companies to efficiently map the supply chain by a cascading approach and communicate their requirements to any tier along the supply chain. This mapping enables companies to better understand their supply chain structure and to identify potential hotspots – for each supplier facility and related products or materials. In case suppliers are reluctant to share their sources with customers, they can still collaborate with their suppliers, collecting upstream data, and making the aggregated footprints accessible to customers. As footprint calculation can be challenging, the platform provides extensive support for suppliers, helping not only with the calculations of the footprints, but also to allocate it to specific outputs. This way, downstream customers can monitor the exact contributions from a facility to their overall scope 3.1 footprint. Lastly, the platform enables companies to quickly identify which suppliers are making the biggest efforts and where additional incentives or enforcement of measures might be necessary.

Beyond measuring targets, sustainabill also supports companies in calculating a fact-based product carbon footprint, and, as transparency is the baseline to address all sustainability dimensions, companies can also tackle human rights issues or address climate adaptation along the supply chain.

Table 1: Overview of how the sustainabill cloud platform supports companies in meeting their climate targets

Implementation step	Support through sustainabill cloud platform
1) Communication	Companies can cascade their requirements to any tier of the supply chain through flexible requests.
2) Collaboration	Each supplier facility can reach out to their suppliers and sub-suppliers, collect data, and control the extent of data they wish to share with downstream customers.
3) Support	Suppliers are guided through all necessary steps of data entry. They can use integrated tools to calculate the facility footprint and allocate it to their products. They can also use the data to respond to other data and information requests and hence benefit from the increased collaboration.
4) Monitoring	The platform analytics show the relevance of each supplier facility for its products sourced and how much a component or raw material contributes to the scope 3.1 footprint.
5) Reinforcement	Companies can track how far suppliers uphold their end of the agreement, meeting their targets, and initiating corrective actions.

sustainabill GmbH
Im Mediapark 5
50670 Köln
Germany

hello@sustainabill.de
+ 49 221 29191 940
www.sustainabill.de

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