

The process of setting science-based supply chain greenhouse gas emission targets

Insights from IKEA, Husqvarna, Nestlé and Tetra Pak

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The world is facing global warming because of excessive release of greenhouse gases (GHG). Many companies therefore want to decrease their GHG emissions by setting reduction targets. There is little research on how to set these targets for supply chain emissions. This article presents insights from IKEA, Husqvarna, Nestlé and Tetra Pak on how to set supply chain GHG emission targets.

The Science Based Target Initiative (SBTi) encourages companies to do their fair share in limiting the temperature increase to 2 degrees above preindustrial temperatures. About two companies a week are signing up to the initiative and setting science-based targets. If supply chain emissions constitute a large share of total emissions, signed up companies have to set supply chain targets as well.

Setting targets for supply chain emissions specifically is often complex since data availability and possibilities to impact rely on external entities. Setting and reaching targets will rely heavily on supply chain management practices, such as cooperation with suppliers. The most important prerequisites to setting targets is obtaining management support.

The general process should include; Scoping, Creating a GHG inventory, Modeling, deciding on Targets and time horizons, Communicating targets and Tracking progress. Figure 1 presents the steps and overall insights to each step. Companies will during this process need to make assumptions and can choose to have a varying amount of stakeholder input.

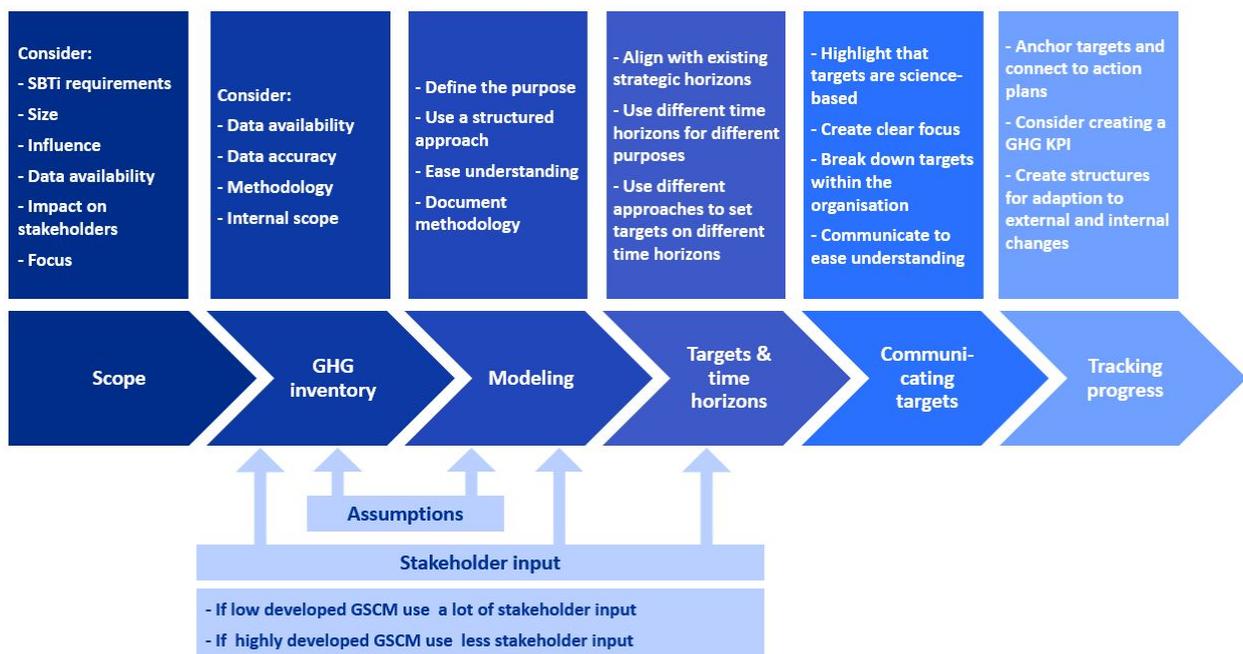


Figure 1. The process of setting science-based supply chain emission targets (author's creation).

Using a bottom-up approach including more stakeholder input seems to be more appropriate for companies with less developed green supply chain management (GSCM) practices. A top-down approach better suits companies with well-developed sustainability practices. This is because companies with less developed GSCM are likely to need to anchor the targets more in the organization to spark action and ensure stakeholder buy-in.

When deciding what should be included into the scope companies should focus on a few large emission areas which they can impact. In general, the GHG inventory-step took the longest time while determining the actual targets took relatively little time. It is therefore recommended to assign a lot of time to the GHG inventory. Modeling was considered helpful to understand how targets could be reached and as a tool for internal communication.

When setting targets, time horizons and target levels should be considered. Targets on different time horizons serve different purposes; short-term targets (3-5 years) are used to make action plans, mid-term (~10 years) to set strategic objectives and long-term (~30 years) serve as visions. Setting targets on different time horizons can therefore beneficially be done by different approaches. A bottom-up approach is appropriate for short-term targets, an iterative approach for mid-term targets and a strictly science-based, top-down, approach for long-term targets. This is illustrated in Figure 2.

Following the, in this article proposed, process will make setting science-based supply chain targets somewhat easier. Hopefully this study can be a small piece of the puzzle in helping companies and contributing to a better planet.

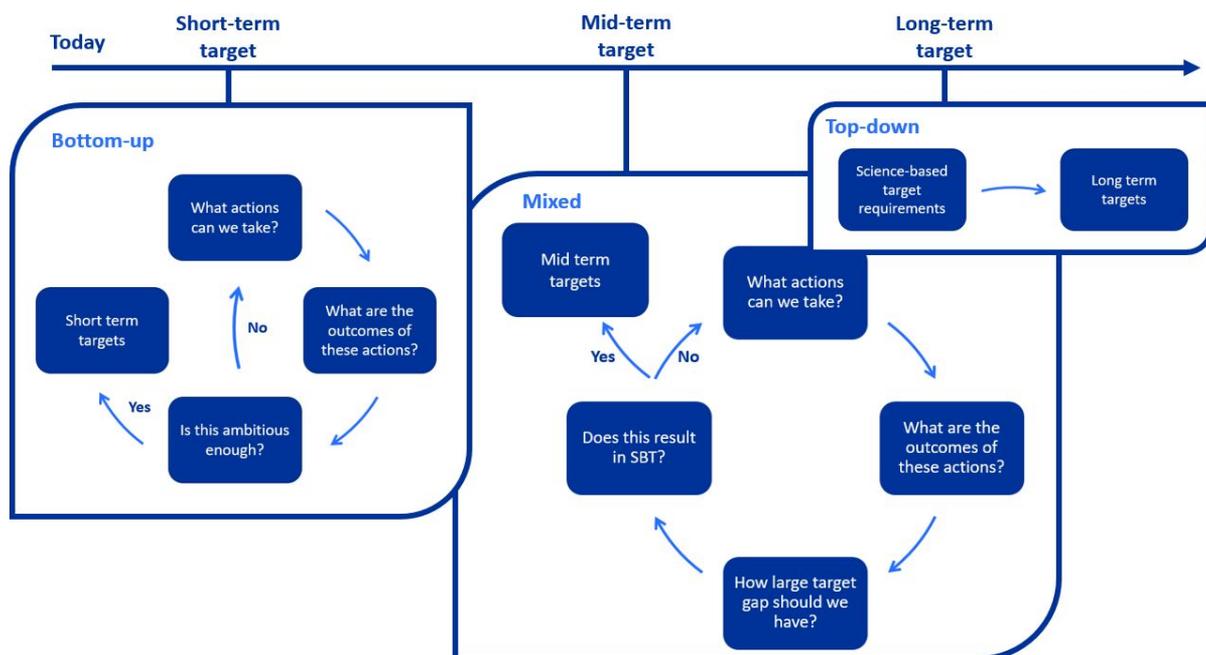


Figure 2. Targets on different time horizons can beneficially be setting by using different approaches.