

# Climate+ Frequently Asked Questions

## **What is the goal of Climate+?**

Launched in 2019, the initial goal of Textile Exchange's Climate+ strategy is to achieve a 45% reduction in the greenhouse gas emissions that come from producing fibers and raw materials in the fashion, apparel, and textile industry by 2030.

## **How does the 45% GHG reduction goal align with global goals?**

This goal was developed to be in line with the Paris Agreement and keeping global warming to a 1.5°C pathway.

## **What year was the 45% GHG reduction goal set?**

The goal has a baseline year of 2019, which means that the 45% emission reduction is based on the impacts calculated for 2019.

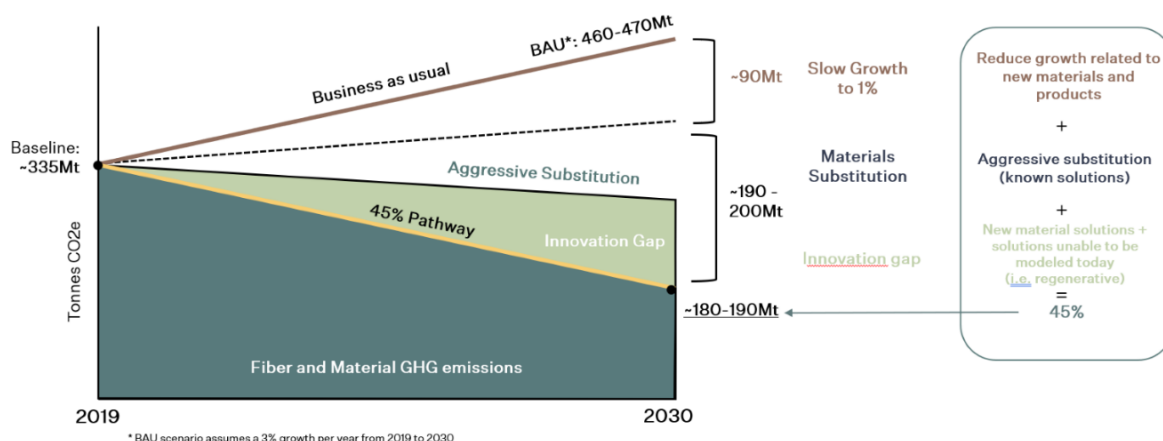
## **What impact areas does the goal apply to?**

The target considers the greenhouse gas impacts associated with raw material extraction and initial processing for the fashion, textile, and apparel supply chain.

## **What data does Textile Exchange use to estimate the GHG impacts of different fibers and raw materials?**

1. Global production volume data from Textile Exchange's annual Materials Market Report (previously called the Preferred Fiber and Materials Market Report).
2. Sector split data aggregated by Textile Exchange, estimating the share of global production volume linked to the fashion, textile, and apparel industry versus other sectors, such as medical textiles and the automotive industry.
3. Global average GHG emission factors, sourced from Life Cycle Assessment studies on fibers and raw materials.

## Getting to 45% in Tier 4 – Fashion and Apparel, Home Textiles, and Footwear



### What does this goal mean in terms of emissions reduction?

To achieve the 45% goal, the industry needs to reduce its GHG emissions related to fiber and raw material extraction and initial processing to 180 – 190 MT CO<sub>2</sub>e by 2030. This is compared to the 2019 baseline, which Textile Exchange estimates as 335 MT CO<sub>2</sub>e.

### What is projected under a business-as-usual (BAU) scenario?

Textile Exchange considers reduction interventions against a business-as-usual (BAU) scenario. This estimates the industry’s emissions with no interventions in place, assuming a conservative growth rate of 3% in global fiber and raw material production per year across all fiber and material categories. The estimated GHG impacts under the BAU scenario range between 460-470 MT CO<sub>2</sub>e.

Textile Exchange is aware that this 3% growth rate assumption needs to be explored further, as growth rates will vary across fiber and material categories and other variables.

### What are the three key areas of action needed to reach the 45% GHG emission reduction goal by 2030?

#### 1. Material substitution

Rapidly and aggressively switching to preferred raw materials that have credible impact data (GHG emissions factors) to indicate a lower GHG impact. In 2022, Textile Exchange released new initial guidance significantly raising the bar on our definition of a “preferred” material, which can be found [here](#). Given the number of gaps in available GHG emissions factors, it is currently not possible to model all material substitution options. GHG emissions comparisons should only be done within materials categories, not across distinct materials categories.

## 2. Closing the innovation gap

This includes new material solutions (sometimes referred to as “next-gen materials”) as well as other solutions that are not able to be modeled today, such as the potential carbon sequestration (removals) from regenerative agriculture.

## 3. Slow growth

Historically, fiber and raw material production for the fashion, apparel, and textile sector has increased year on year. But we will not reach the 2030 GHG emissions reduction target of 45% if we continue producing increasing amounts of materials and products. As an illustrative example, we have modeled a growth rate of 1% vs. the business as usual (BAU) growth rate of 3%.

### **Are modeling calculations expected to change?**

Textile Exchange’s GHG impact modeling calculations will be updated as the underlying datasets are improved – whether the production volume data, the sector split data, or the GHG emissions factors.

### **What are the limitations of the current LCA datasets?**

LCA methodology, when applied to fibers and raw materials used by the fashion, textile, and apparel industry, currently has some key limitations.

It does not capture all impact areas such as soil health, biodiversity, animal welfare, and social impacts; it can be cost-prohibitive and resource intensive; there can be significant variability across LCA studies in the scope of what is covered as well as in other assumptions that are made; system boundaries defined for LCA studies can vary within and across fiber types; and results from LCA studies can be presented in multiple ways (e.g., “global averages” or regional impacts).

Finally, most of the LCA data collected is at the global level and thus is not a full representation of country or regional production.

### **How is Textile Exchange working to fill data gaps across the industry?**

The industry is currently lacking GHG emissions factors for a number of key fiber and raw materials. Textile Exchange is working on filling these gaps via several workstreams:

1. Leading baseline LCA studies for cashmere, cotton, polyester, nylon, and leather, along with several additional studies on materials certified to Textile Exchange standards (see below) and potential expansion to other fiber and material categories in the future. At a minimum, we are aiming for results at a country level for each study. Results will be made publicly available.
2. Developing a Life Cycle Inventory (LCI) Library to house the underlying input/output data from LCA studies for open-source access, enabling the industry to fill additional gaps more efficiently in representative GHG emission factors.

3. Hosting an Impact Measurement community space on the Textile Exchange Hub, our dedicated online member platform.

### **How is Textile Exchange working to fill data gaps within its own standards system?**

1. For our own standards, we are developing LCA studies for Responsible Wool Standard (RWS) Wool and Responsible Mohair Standard (RMS) Mohair. As above, we're aiming for country-level results for these studies and will be sharing the results publicly.
2. In 2021, we began the process of transitioning to a unified standards system. While our standards are currently focused on practice-based requirements, this process will see us move to a hybrid approach that combines traditional, practice-based requirements with key Climate+ outcomes. We will use impact data to monitor progress over time, and the model for monitoring and evaluating the impacts of those standards is in progress. You can find out more about our unified standard system, the development timeline, and the opportunities for public consultation, on our [website](#).

### **How is this modeling intended to be interpreted?**

Any modeling of industry-wide GHG impacts should be considered as a range and a guide to understand the potential impact, rather than absolute numbers. This is due to the uncertainty in the data, including the use of proxy data to represent the GHG impacts of certain fibers and raw materials which are currently lacking specifically representative data.

### **What is the scope of the GHG impact modeling conducted by Textile Exchange against the 45% target?**

2022 was the first year Textile Exchange was able to isolate the production volumes and impacts related specifically to the fashion, textile, and apparel sector. Previous calculations included global production across all use cases, such as automotive and industrial sectors. We will continue to refine this sector-split methodology.

The GHG impact modeling against the 45% reduction target looks at climate impacts only (not including carbon removals), and does not include other impact areas such as biodiversity, soil health and, water.

The full list of included and excluded fibers and raw materials and the associated modeling approach, along with other details on the GHG impact reporting methodology, are all included in the GHG impact reporting methodology document. This can be found in the library of the Impact Measurement community on The Textile Exchange Hub.

### **What is "LCA+" and how is it implemented?**

"[LCA+](#)" is Textile Exchange's approach to impact measurement that goes beyond solely addressing carbon emissions, also recognizing impacts related to biodiversity, soil health, water, animal welfare, and livelihoods.

Textile Exchange is actively working with expert partner organizations that are developing methodologies and modeling approaches to capture industry progress in these other impact areas beyond climate.

### **What is the Climate+ Dashboard?**

Textile Exchange refreshes its GHG impact modeling each year in line with the publication of the Materials Market Report. Updated results are available publicly on the website and can be viewed in the [Climate+ Dashboard](#).

For each figure on the dashboard, there is an information “call-out” which describes the figure, provides an overview of the methodology, and includes the data sources<sup>2</sup>.

### **What impact tools do we offer to drive progress toward our GHG reduction target?**

We see our standards as one element in a holistic toolkit of solutions that, when used together, can help us to drive positive change. We offer a range of impact tools for companies to use to assess the climate impacts of options within the same material category and make informed decisions.

1. Preferred Fiber and Material Matrix: The Preferred Fiber and Material Matrix (PFMM) is an interactive tool for brands to use to inform and guide material sourcing decisions, as well as for standards systems to view their performance across impact areas in a standardized way and toward a shared “direction of travel.” It includes over 50 fiber and raw material standards systems, accounts for eight core impact areas, and incorporates both qualitative and quantitative indicators. The PFMM is intended to be used to compare the environmental and social performance of standards systems within fiber categories.
2. Materials Impact Explorer: Built on Google Earth Engine, the Materials Impact Explorer (MIE) uses Google Cloud computing to assess the environmental risk of different fibers and raw materials across countries as they relate to environmental factors such as biodiversity, climate, and water. It also provides brands with recommendations for targeted, country-specific risk reduction activities, including opportunities to work with farmers and producers.