The Preferred Fiber & Materials Benchmark helps companies systematically measure, manage and integrate a preferred fiber and materials strategy into mainstream business operations.

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Preferred Fiber & Materials Benchmark

01 /
Key Insights

Organic-Fairtrade Cotton Farmer, Brazil
PHOTO: TATIANA CARDEAL FOR C&A FOUNDATION
Welcome to the Benchmark Insights 2017

Welcome to the 2017 Preferred Fiber and Materials (PFM) Benchmark Insights. This report provides insight into the collective progress and impacts of our benchmarking companies in the context of the Sustainable Development Goals (SDGs). The SDGs give us all a new language to express our sustainability aspirations, and you’ll see they feature prominently in this report. 2018 is the year in which responsible consumption and production under SDG 12 is being reviewed at the United Nations High Level Political Forum, and the timing of this report is an ideal opportunity to focus on this important theme.

Participants are improving their scores
It’s encouraging to see participants’ scores improve, with many of our pioneers consolidating their improvements and moving along the performance barometer. In particular, we see companies moving up from the “getting started” level to “developing,” where we now have 53% more companies occupying this higher performance level. New arrivals mean that we’ve grown participation by 70% in just three years, strengthening the PFM Benchmark as the accepted industry mechanism to measure and compare efforts in fiber and materials sustainability.

Public disclosure is the future
We are also seeing a move to increasing disclosure, which our Benchmark reflects. One example is the 2016 EU Directive on non-financial information, which adds impetus to our development planning. We would like to see the PFM Benchmark approach the status of a CDP (Carbon Disclosure Project) for apparel and textile materials. In the financial market, we are seeing socially responsible investors (SRI) converging with traditional market investors, who are now accounting for sustainability issues as they would traditional risks and opportunities. Over 50% of our participants said they had started to address materiality in regards to fibers/materials, and 39% said they were assessing the risks associated with sourcing.

Companies are setting priority SDGs
With 17 Sustainable Development Goals set by the UN for 2030, our companies are starting to focus on the ones where they can make the most difference. In order of priority, the top six selected were SDG 12, 13, 8, 6, 3 and 8 (see opposite page).

The materials mix is as important as the individual fiber
This report covers a complex field, but as our understanding of PFMs builds, one significant insight is that the mix of materials a company chooses is just as important as its sustainability efforts in each individual fiber. Careful consideration of the range of materials in use can have as much impact as striving for the best result in just one. It’s a complex task, but one with high impact.

I’d like to congratulate all our companies on their commitment to benchmarking progress and on joining in on our fiber challenges. We look forward to another successful cycle in 2018.

Liesl Truscott
Director of European & Materials Strategy
Textile Exchange

2017 Benchmark Highlights

Performance Across the Portfolio

Top Performers in the Index
Preferred Cottons
Preferred Down

Room For Improvement
Recycled Fibers (Polyester and Cotton)
Manmade Cellulosics

What Was New In 2017

A third of participating companies have embarked on a circularity strategy.

Top SDGs Companies Are Working On

29% of participating companies said they had started aligning their corporate strategy with the SDGs.

45% of participating companies said alignment is under discussion.
Overall, participants increased consumption and reporting of Preferred Fiber and Materials (PFMs).

**Preferred Cotton**
- Consumption reporting: 2017: 78% 2016: 97%
- 2017: 598,333 mt
- 2016: 336,487 mt

**Preferred Polyester**
- Consumption reporting: 2017: 67% 2016: 56%
- 2017: 47,407 MT
- 2016: 22,622 MT

**Preferred Manmade Cellulosics**
- Consumption reporting: 2017: 64% 2016: 57%
- 2017: 24,332 MT
- 2016: 3,559 MT (pLyocell only)

**Preferred Down**
- Consumption reporting: 2017: 46% 2016: 39%
- 2017: 1,927 MT
- 2016: 879 MT

Sustainability outcomes can be assessed.

**Impacts**
- Savings in water, energy, and greenhouse gases.

**Outcomes**
- More sustainable agriculture, technologies, and use of land.

**Inputs**
- More responsible use of raw materials and natural resources.

**PFM Benchmark Impact Dashboard**
- Reporting helps us track participants' progress against conventional usage.

**From the consumption data reported through the PFM Benchmark, impact savings can be estimated.**

- **288.5 billion Liters of Water (pCotton only)**
  - Equal to the daily drinking water needs of all people on earth for 13 days.

- **6.8 billion MJ of Fossil Fuel Energy**
  - Equal to 2.16 million 100 Watt light bulbs left on for one year.

- **398,926 MT CO₂e of Greenhouse Gas Emissions**
  - Equal to 289 Boeing 747s flying from London to Delhi (134,570 passengers).

Consumption data is aggregated from the PFM Benchmark and Consumption Tracker, and has been rounded to whole numbers. pCotton impacts are calculated from organic, CmiA, and recycled cotton LCA data. Potential savings are according to the Higg Materials Sustainability Index (Higg MSI) midpoint data and associated LCA results, and comparing to 100% conventional. See Methodology to find out more.
More than 10 years ago, we decided that there is no alternative to sustainability for our business and set the goal to become 100% sustainable. This challenges us every day to think about completely new and innovative ways of doing business and continuously learn and adapt while doing it. We strongly believe in the centre of it all stands co-creation and strong partnerships. Because only together with the entire sector can we create room for change.

Nanda Bergstein, Director Corporate Responsibility, Tchibo

"The SDGs are universal, holistic, and measurable. Companies are starting to use them to plan a long-term approach to sustainability.

The PFM Dashboard tracks progress towards the SDGs, starting with SDG 12: Responsible Consumption and Production.

The Sustainability Impacts associated with transitioning towards SDG 12 can be directly mapped to at least six other SDGs.

How? An example of how switching to a preferred cotton saves water and energy and reduces emissions.

Preferred Cotton Environmental Impact Savings

Water: 288.5 billion liters, 89.8% savings

Energy: 3.07 billion MJ, 65.7% savings

GHG Emissions: 220,472 mt CO₂, 49.3% savings

Consumption data is aggregated from the PFM Benchmark and Consumption Tracker, and has been rounded to whole numbers. Cotton impacts are calculated from organic, CmiA, and recycled cotton LCA data. Potential savings are according to the Higg Materials Sustainability Index (Higg MSI) midpoint data and associated LCA results, and comparing to 100% conventional. See Methodology to find out more.
Increasing Participation Highlights a Growing Commitment

72% are Textile Exchange members

Participation Growth

- North America: 31%
  - 2017: 23
  - 2016: 21
  - 2015 (pilot): 20

- Europe: 61%
  - 2017: 73
  - 2016: 75
  - 2015 (pilot): 71

- Asia: 5%
  - 2017: 7
  - 2016: 7
  - 2015 (pilot): 5

- Africa: 1%
  - 2017: 1
  - 2016: 1
  - 2015 (pilot): 1

- Oceania: 2%
  - 2017: 1
  - 2016: 1
  - 2015 (pilot): 1

- Outdoor/Sports: 23%
  - 2017: 23
  - 2016: 25
  - 2015 (pilot): 22

- Home Textiles: 14%
  - 2017: 14
  - 2016: 15
  - 2015 (pilot): 15

- Apparel (Large): 22%
  - 2017: 22
  - 2016: 23
  - 2015 (pilot): 20

- Apparel (Small/Medium): 25%
  - 2017: 25
  - 2016: 24
  - 2015 (pilot): 23

- Apparel (Extra Large): 16%
  - 2017: 16
  - 2016: 17
  - 2015 (pilot): 15
You know your operations are 10% better than last year. Great if everyone else is only 5% better. But what if they are 20% better?

That’s benchmarking.
The Barometer Shows
Companies Are Moving up the Scale

The PFM Index barometer provides a scale to measure performance. The biggest change between 2016 and 2017 was the number of companies that moved from "starting out" to "developing" on the barometer. The number in "developing" increased by 53%, and the number in "starting out" dropped by 56%.

PERFORMANCE AGAINST THE PFM INDEX BANDS 2016

- Leading: 6%
- Progressing Well: 11%
- Establishing: 15%
- Developing: 34%
- Starting Out: 34%

PERFORMANCE AGAINST THE PFM INDEX BANDS 2017

- Leading: 5%
- Progressing Well: 12%
- Establishing: 15%
- Developing: 52%
- Starting Out: 15%

PFM Index Barometer

The PFM Index average is the average of all participant scores. It is calculated from Section 1 scores plus the average score for Sections 2, 3 and 4 for a company’s top three performing modules. All scores are out of 100.

The Index average moved up 4-points, from 49 out of 100 in 2016, to 53 in 2017. On the barometer, the Index average remains in the "developing" stage. This year, we’ve seen an overall increase across all Sections of the Index. Corporate Strategy is still ahead of the rest of the Index, while Consumer Engagement remains the biggest opportunity for improvement.

See methodology to find out more about the construction of the PFM Benchmark.
## A Worldwide Program

### 97 Companies | 19 Countries | Estimated Turnover US$ 1.7 Trillion

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### 73 Returnees | 24 New Participants

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<td>WOOLWORTH (PTY) LTD</td>
<td>MultiSector (XL)</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>1 x Undisclosed participant</td>
<td></td>
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</tbody>
</table>
What Should Companies Do Next?

Our Benchmark responses give us unique insights into the big corporate sustainability trends. If your intention is to keep pace with the industry leaders, then move up the scale with these interventions:

Look to 2030 - and use the SDGs to anchor your corporate strategy.

The future must be fair, resource efficient, and circular. The SDGs provide a common language for today’s vision of sustainable development. Start building the roadmap for getting there.

Position sourcing teams center stage.

70% of companies who have assigned responsibilities, said sourcing teams have sustainability key performance indicators (KPIs) alongside the more traditional ones. This number has increased by 41% over the previous year.

Know where your fiber and materials come from.

Transparency is still a big challenge. The use of chain of custody standards, coupled with supplier mapping, are making some inroads, but a lot still needs to be done to translate sourcing policies into practice.

Set targets to increase your uptake of PFMs.

77% of preferred cotton participants told us they had set SMART targets (specific, measurable, achievable, relevant and time-bound) for uptake. You can use Textile Exchange’s Fiber Challenges to engage in collaborative efforts.

As you grow, make your growth in PFMs not conventional.

If your use of conventional fibers is growing alongside your use of preferred then your footprint is not shrinking. Increasing the amount of preferred, and extending the life of your products, will improve your environmental impact.

Recognize your consumers are suppliers.

Consumers are not only your customers, they are increasingly a source of raw materials as we move towards circular business models.
As our company grows, we are faced with this challenge: the more we produce, the greater our impact is on the environment. If we are going to inspire and implement solutions to the environmental crisis, as our mission states, we have to reduce our overall impact, regardless of the number of products we sell.

Yvon Chouinard, Founder, PATAGONIA
Corporate Strategy looks at how preferred fiber and materials are integrated into business and the tools companies use to guide more sustainable sourcing decisions.

Integrating risk assessment into mainstream business operations, embedding responsibility, and using industry rating tools, such as the Sustainable Apparel Coalition’s Higg Materials Sustainability Index (Higg MSI) to improve decision-making, continue to be big opportunities for improvement.

The new strategy areas of textile circularity and the Sustainable Development Goals offer companies an important anchor for strategic growth.
Many companies are now assessing the risks associated with the raw materials on which their businesses depend. Of the companies we surveyed in 2017, 39% had assessed the risks associated with the fibers and materials they are using, but only 9% had fully integrated their assessment into a business risk register.

34% of participants have consulted with external stakeholders on fiber and materials risks.

RISK ASSESSMENT CARRIED OUT ON FIBER AND MATERIALS USAGE

Yes, and in the risk register 9%
Yes 30%
Under review 29%
No 32%

Materiality Assessments Are Helping Companies (and Investors) Prioritize Issues

A materiality assessment helps a company gather insights from stakeholders on the relative importance of environmental, social and governance (ESG) issues. Using materiality in developing a sustainability strategy ensures a company focuses on the priority issues, and it provides rigor and clarity to the business case.

51% of participants have started using materiality assessment to identifying stakeholder and strategic priorities.

What did companies say materiality meant for them?

1. Managing business and reputational risk.
2. Recognizing resource constraints and what they can influence and control.
3. Identifying the raw materials that they rely on most as a business.
4. Addressing risks in fiber use, e.g. by using only certified fibers.
5. Using rating tools, such as the SAC’s Materials Sustainability Index, to guide selection.

Leading participants are looking to the Sustainability Accounting Standards Board (SASB) for tools and information to support the disclosure of material sustainability.

More materiality statements are in the public domain, and a number of participants could provide web links to their materiality communications. Some are using the Global Reporting Initiative (GRI) guidelines to frame materiality reports.
I’m committed to ASOS transforming how fashion impacts on people and our planet. We can do this if we’re determined enough, work together, make brave decisions and continue to be open and honest about what needs to be done.

Nick Beighton, CEO, ASOS

Accountability for Fibers and Materials Sits at the Top

The results of our Benchmark demonstrate that accountability for fiber and materials strategy and its implementation sits at the top. The majority of companies told us accountability is held by the CEO or senior management.

ACCOUNTABILITY FOR THE FIBER AND MATERIALS SUSTAINABILITY STRATEGY

- Board of Directors: 12%
- Chief Executive Officer: 47%
- Senior Management: 37%
- Middle Management: 4%

Example of how CEOs are stepping forward

The results show that CEOs are most likely to be accountable for sustainability, and are coming together to collaborate more. The Sustainable Cotton Challenge is a good example of CEOs agreeing on a common target. All who signed the cotton communiqué have committed to ensuring that 100% of the cotton they use comes from sustainable sources by 2025.
Embedding Sustainability Means It’s Everybody’s Business

Increasingly, delivery of a sustainability strategy is recognized as “everybody’s business” and responsibility for this should be embedded throughout the organization, with job descriptions and key performance indicators linked to sustainability goals.

Responsibilities assigned 88%
Under review 8%
No 4%

Sustainability is a building block. As designers, we have various building blocks we consider: materials, aesthetic, function, details and silhouette, to name a few. As brands and businesses, we consider other building blocks like sourcing, price, positioning, margin and delivery. Both sides of the business need to make sustainability a normal building block. You can’t actually work around it. It’s a part of the process.

John Moore, Creative Director, Outerknown

We are seeing responsibility integrate further into the operational areas of the business, particularly with an increase in the responsibility held by sourcing teams. From those that have assigned responsibilities, 70% of companies who have assigned responsibilities, have set sustainability key performance indicators (KPIs) for sourcing staff. This compares with 50% last year.
To become 100% circular, we are taking a circular approach to how our products are made and used, and finding ways to use only recycled or sustainably sourced materials. This means building circularity into every stage of our value chain, including the products we make (both commercial and non-commercial), and the materials we use in our operations.

Cecilia Strömblad Brännsten, Circular Lead, H&M

Companies Are Committing to Closing the Loop

We introduced a new question this year to gauge company movement towards “closing the loop” on resources and becoming circular. To better understand their motivation, we asked companies to tell us about the drivers behind their strategy.

What did companies say was driving their move to circularity?

- A commitment to saving resources.
- Rethinking how products are designed.
- Addressing long-term shortage of raw materials.
- Reducing waste to landfill and saving resources.
- Urgent need to move from a linear to a circular economy.

67% of companies with a circularity strategy are publicly reporting on their activities.
Consumer Engagement Is Key to a Successful Circularity Strategy

For companies that are already implementing circularity strategies in their businesses, we asked them to tell us what their strategy covers. Results show that engaging the consumer was a top priority for many companies, followed by extending a product’s first life.

PROPORTION OF PARTICIPANTS WHO HAVE A CIRCULAR STRATEGY

Yes 29%
In development 52%
No 19%

Demand Management (sufficiency) 33%
Product Design (disassembly) 24%
Product Design (recyclability) 48%
Materials (input proofing) 62%
Hazardous Chemicals/Substances 67%
Service Provision (extended use) 71%
Supply Chain Collaboration 67%
Consumer Engagement 81%
Broader Stakeholder Collaboration 52%

The problem today is not that people buy jeans, the problem is that people throw them away. We see our repair shop in the store as some sort of ambassador. The stores are a way to gain more visibility and tell Nudie Jeans’ story, to make people aware of how things can be done differently in the denim industry. We cannot do this alone.

Palle Stenberg, Vice President, NUDIE JEANS
Inditex is committed to a sustainable value chain that protects human rights and respects the environment, which is why our work streams fully align with the Sustainable Development Goals. Aware of the need for a benchmark framework that guarantees transparency and comparability, Inditex is part of the Corporate Action Group for Reporting on the Sustainable Development Goals, jointly organized by the United Nations Global Compact and the Global Reporting Initiative. It is particularly helpful that Textile Exchange is also incorporating the SDGs into their PFM Benchmark.

Felix Poza, Director of Sustainability, Inditex
Companies have Identified the SDGs that Fit Best with Their Business

Participants are making progress on identifying SDG opportunities and priorities for their business (see results on the earlier page). Developing metrics, implementing programs and tracking progress are less advanced. From the 29% of companies that have started to align their corporate strategy with the SDGs, 95% told us SDG 12: Responsible Consumption & Production was the most important, followed by SDG 13: Climate Action (90%), and in third place SDG 8: Decent Work & Economic Growth (86%).

57% of companies who are aligning corporate strategy with the SDGs, are publicly reporting on their activities.

Note, the SDG questions in the PFM Benchmark survey maps with the UN Global Compact Communications of Practice (COP) questionnaire.

"Timberland has had CSR strategies and goals in place for decades, and those strategies continue to serve as our beacon for progress as it relates to sustainability. That said, when the SDGs were published, we took a close look to ensure that our efforts are aligned with what others are focusing on. I’m pleased to report that every one of our sustainability goals maps to at least one SDG goal, so we’re all working toward the same results when it comes to creating a more sustainable world.

Colleen Vien, Director of Sustainability, Timberland"
The IKEA ambition is to not use any virgin oil based polyester in textiles by 2030. To commit to use 25% more rPET by 2020 is a natural step towards our ambition. We are committed to use resources with the utmost efficiency and turn waste into resources.

Lena Julle, Category Area Manager Textiles, IKEA Range & Supply
The Benchmark Measures a Company’s PFM Portfolio Approach

The performance of each preferred fiber or material (PFM) within each spotlight is measured across the three sections of the index: supply chain, consumption, and consumer engagement. Deeper dives provide further analysis of key areas such as: chain of custody, investment, target-setting, reporting, and labeling.

Results for CmiA, Fair Trade, and REEL are not included in this analysis due to low participation rates and in the interest of maintaining confidentiality of company data.

A preferred fiber or material is ecologically and/or socially progressive and has been selected because it has more sustainable properties in comparison to other options.

The top performing PFMs in 2017 were organic-fair trade cotton, preferred down (certified to the RDS or TDS), and organic cotton. Companies that scored well in these PFMs were strong in: chain of custody from feedstock to final product; high uptake compared to their conventional use; and use of third-party labeling.

Participation rates have climbed for recycled polyester, preferred manmade cellulosics, and preferred down, while preferred cotton participation remains at a constant level (yet considerably higher than the other PFMs).
Preferred Fiber & Materials Benchmark

Spotlight on Preferred Cotton

INSIGHTS 2017

Preferred Cotton Modules:

01 / Organic-Fair Trade
02 / Organic
03 / Fair Trade
04 / Cotton made in Africa (CmiA)
05 / Better Cotton Initiative (BCI)
06 / Recycled
07 / REEL Cotton Program
Preferred Cotton and the SDGs

Adopting preferred cotton helps conserve natural resources and safeguard a non-toxic environment. These outcomes are important for businesses, communities, and ecosystems, and contribute towards the SDGs.

Preferred Cotton Impact Savings

<table>
<thead>
<tr>
<th></th>
<th>Organic Cotton</th>
<th>Cotton made in Africa</th>
<th>Recycled Cotton (Recov® data)</th>
</tr>
</thead>
<tbody>
<tr>
<td>Water Consumption</td>
<td>248.9 billion Liters</td>
<td>2.8 billion Liters</td>
<td>36.8 billion Liters</td>
</tr>
<tr>
<td>Fossil Fuel Energy</td>
<td>2.6 billion MJ</td>
<td>27.1 million MJ</td>
<td>433.6 million MJ</td>
</tr>
<tr>
<td>Global Warming</td>
<td>177,444 MT CO₂e</td>
<td>1,617 MT CO₂e</td>
<td>41,410 MT CO₂e</td>
</tr>
</tbody>
</table>

SDGs directly impacted by transitioning to preferred cotton

12 RESPONSIBLE CONSUMPTION AND PRODUCTION

96% of participants completed one or more pCotton modules.

55% of participants completed two or more pCotton modules.

Companies sourcing organic-Fair Trade and organic cotton are the most advanced, with average scores of 60 and 53, respectively. Results show that many companies are opting for a portfolio approach, using more than one preferred cotton to reach their goals. Organic and BCI are a common portfolio combination, with recycled cotton becoming an increasingly important part of the mix.
Section 2: Supply Chain Performance

Section 2: Supply Chain Deeper Dive

Organic-Fair Trade supply chains out-perform other preferred cottons, as well as the index average. The scorecard above shows areas of strength and opportunities for improvement. Companies can do more through building greater transparency and investing at the farm level, either independently or in collaboration with others.

Preferred cottons are differentiated by their sustainability standards. Participants are much more advanced in their use of chain of custody standards to verify their organic cotton than they are for their recycled cotton. Leading companies are investing in supply security and responsible sourcing practices.

Organic & Organic-Fair Trade

Organic-Fair Trade
- Long-term commitments.
- Industry initiatives.
- Pre-competitive collaboration e.g. Organic Cotton Accelerator, ChetCo.

Organic
- Volume forecasts.
- Regular farm visits.
- Supporting infrastructure development.

BCI
- Community development.
- Direct funding of farm programs.

Recycled
- Training of buyers and suppliers.
- Nominating spinning mills.

Examples of investment activities:

Organic-Fair Trade
- Long-term commitments.
- Industry initiatives.
- Pre-competitive collaboration e.g. Organic Cotton Accelerator, ChetCo.

Organic
- Volume forecasts.
- Regular farm visits.
- Supporting infrastructure development.

Recycled
- Training of buyers and suppliers.
- Nominating spinning mills.

BCI
- Community development.
- Direct funding of farm programs.
Section 3: Consumption Performance

The 598,333 MT represents an estimated 47% of the total cotton used by participants came from a preferred source. The lion’s share of this was BCI, followed by organic. Year-on-year participation rates are growing alongside uptake, and growth in both participation and uptake is likely to continue as more companies set targets, either individually or in collaboration. 71% of participants reported a SMART (specific, measurable, achievable, relevant and time-bound) target for uptake of pCotton, and 13% were signatories to the Sustainable Cotton Challenge, committing to source 100% more sustainable cotton by 2025.

Organic-Fair Trade and organic cotton results are the most developed in terms of setting targets and measuring uptake. BCI and recycled cotton are less advanced but we expect strong growth driven by the expansion of preferred cotton portfolios.

Analysis for Section 3 is based on aggregated data from both the PFM Benchmark and the PFM Consumption Tracker (i.e. all 97 participants).

A positive score for SMART Targets includes having a portfolio or specific target, or having achieved 100% preferred.
Almost all participants are communicating their use of preferred cotton through labeling. Company own-labels are more common than second or third party logos. Products carrying third-party labels, e.g. organic, recycled, and Fair Trade, physically contain the preferred cotton. Second-party labels communicate the company’s participation in a program or initiative and do not claim to physically contain the preferred fiber.

Almost all participants are communicating their use of preferred cotton through labeling. Company own-labels are more common than second or third party logos. Products carrying third-party labels, e.g. organic, recycled, and Fair Trade, physically contain the preferred cotton. Second-party labels communicate the company’s participation in a program or initiative and do not claim to physically contain the preferred fiber.

Establishing brand identity is leading the way in the conversation. The biggest opportunities lie in developing a strategic approach to consumer engagement. Monitoring and evaluating success, with the goal of strengthening the business overall, offers an important opportunity to bring the consumer along on the journey.

77% of pCotton participants have a strategy to engage customers on the associated sustainability benefits.
Spotlight on Preferred Polyester

Preferred Polyester Module:
01 / Recycled Polyester (rPET)
Preferred Polyester and the SDGs

Switching out virgin polyester for recycled polyester helps to answer public concern about plastic waste, conserve resources, and contribute to the SDGs, particularly SDG 9: Industry Innovation and Infrastructure.

Preferred Polyester Impact Savings

<table>
<thead>
<tr>
<th>Semi-mechanically Recycled Polyester</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>Fossil Fuel Energy</strong></td>
</tr>
<tr>
<td>2.8 billion MJ</td>
</tr>
<tr>
<td>77.1% savings from conventional at 100%</td>
</tr>
<tr>
<td><strong>Global Warming</strong></td>
</tr>
<tr>
<td>89,699 MT CO₂, equiv.</td>
</tr>
<tr>
<td>58.5% savings from conventional at 100%</td>
</tr>
</tbody>
</table>

Preferred Polyester Portfolio Performance

Recycled polyester scores have not changed much from 2016 to 2017. Where we have seen improvement is in participation rates, which have increased by 27%.

SDGs directly impacted by transitioning to recycled polyester

- **12 RESPONSIBLE CONSUMPTION AND PRODUCTION**
- **6 CLEAN WATER AND SANITATION**
- **9 INDUSTRY INNOVATION AND INFRASTRUCTURE**
- **7 AFFORDABLE AND CLEAN ENERGY**
- **13CLIMATE ACTION**

Recycled polyester helps to answer public concern about plastic waste, conserve resources, and contribute to the SDGs, particularly SDG 9: Industry Innovation and Infrastructure.

71% of participants completed the rPET module.
Participants are yet to fully implement chain of custody standards for their recycled polyester. Investment activities are by no means across the board. However, there are positive signs of working in partnership to build supply chains, address waste, and venture into new (more circular) ways of working. While a number of participants discussed the opportunities to close the loop on synthetic textiles, results showed that fiber comes mostly from plastic bottles, which are mechanically recycled into polyester.

Recycled polyester supply chains are based on waste materials, usually post-consumer plastic bottles. Results indicate that companies are in the early stages of embedding integrity-related activities into their recycled polyester supply chains.

Examples of investment activities:
- Working with suppliers on issues such as quality, availability, and efficiencies.
- Setting up or joining programs to address waste and pollution, such as recycling ocean plastics.
- Setting up supply chains in developing countries to address pollution and social conditions.
- Working with teams on the ground in manufacturing zones.
- Looking into new [circular] business models.

Chain of Custody
- Partial coverage: 46%
- Full coverage: 54%

Third Party Standards:
- Global Recycled Standard (GRS) - 61%
- Recycled Claim Standard (RCS) - 29%
- Other e.g. SCS Recycled Content Standard (SCS) - 14%
- Combination - 21%

Recycled polyester supply chains are based on waste materials, usually post-consumer plastic bottles. Results indicate that companies are in the early stages of embedding integrity-related activities into their recycled polyester supply chains.
Section 3: Consumption Performance

Companies are progressing in their target-setting and reporting of recycled polyester. Results for uptake lag behind as companies are yet to make inroads in closing the gap on virgin polyester.

Section 3: Consumption Deeper Dive

8% of the approximate 47,407 MT of polyester reported to be used by the 2017 group of participants came from a recycled source. 22% of these participants are signatories to the Textile Exchange rPET Commitment, having pledged to source at least 25% of their polyester needs from recycled sources by 2025.

59% of rPET participants have set SMART targets for uptake.

Analysis for Section 3 is based on aggregated data from both the PFM Benchmark and the PFM Consumption Tracker (i.e. 97 participants). A positive score for SMART Targets includes having a portfolio or specific target, or having achieved 100% preferred.
Section 4: Consumer Engagement Performance

Those that are labeling recycled polyester products are mostly using their own label. Product branding through use of third party labeling is under-developed for companies retailing rPET products. This may change as brand recognition and consumer awareness grows.

Establishing brand identity is leading the way in the conversation. The biggest opportunities lie in developing a strategic approach to Consumer Engagement. Monitoring and Evaluating success, with the goal of strengthening the business overall, offers an important opportunity to bring the consumer along on the journey.

46% of rPET participants have a strategy to engage customers on the associated sustainability benefits.

Third party labels:
- Global Recycled Standard (GRS)
- Recycled Claim Standard (RCS)
- Other: e.g. SCS Recycled Content Standard (SCS)
Spotlight on Preferred Manmade Cellulosics

Preferred Manmade Cellulosics Modules:

01 / Preferred Lyocell (pLyocell)
02 / Preferred Modal (pModal)
03 / Preferred Viscose (pViscose)
Preferred Manmade Cellulosics and the SDGs

Preferred manmade cellulosics (pMMCs) address concerns about felling ancient and endangered forests and the management of chemicals, water, and energy used in manufacturing. SDG 15: Life on Land is key for manmade cellulosics. Lenzing data has been used to model preferred MMC impacts. See methodology for more information.

Preferred manmade cellulosic fibers impact savings*

<table>
<thead>
<tr>
<th>Fiber Type</th>
<th>Water Use</th>
<th>Fossil Fuel Energy</th>
<th>Global Warming</th>
</tr>
</thead>
<tbody>
<tr>
<td>Preferred Lyocell</td>
<td>832.3 million Liters</td>
<td>483.9 million MJ</td>
<td>50,533 MT CO₂e</td>
</tr>
<tr>
<td>(54.5%) savings</td>
<td>(50.8%) savings over conventional</td>
<td>(62.8%) savings over conventional</td>
<td>(62.8%) savings over conventional</td>
</tr>
<tr>
<td>Preferred Modal</td>
<td>72.6 million Liters</td>
<td>116.4 million MJ</td>
<td>9,879 MT CO₂e</td>
</tr>
<tr>
<td>(32.2%) savings</td>
<td>(82.5%) savings over conventional</td>
<td>(82.5%) savings over conventional</td>
<td>(82.5%) savings over conventional</td>
</tr>
<tr>
<td>Preferred Viscose</td>
<td>398.7 million Liters</td>
<td>341.6 million MJ</td>
<td>28,344 MT CO₂e</td>
</tr>
<tr>
<td>(23.1%) savings</td>
<td>(31.6%) savings over conventional</td>
<td>(31.6%) savings over conventional</td>
<td>(31.6%) savings over conventional</td>
</tr>
</tbody>
</table>

The growth of pMMCs encouraged us to divide the category into three separate modules (pLyocell, pModal, and pViscose). Preferred lyocell is, by far, the most important preferred option for participating companies, with 85% of pMMC participants completing this module. Participation rates grew by 43% over 2016, however, a number of new entries pulled average scores down slightly across all pMMC modules. It’s important to note that index scores are not a direct reflection of consumption volumes, as these did increase from 2016 to 2017. For all three pMMC options, index scores reveal room for improvement.

SDGs impacted by transitioning to preferred manmade cellulosics

* Modeling of pMMCs uses midpoint data from Lenzing for Lenzing™ Lyocel, Lenzing™ Modal, and Lenzing™ Viscose produced in Asia in compliance with EU Ecolabel requirements.
Section 2: Supply Chain Performance

Scores reveal a slightly stronger position for pViscose. One theory is that the smaller number of companies reporting pViscose are putting their efforts into addressing the risk associated with this more controversial option and building in more transparency. To help us understand company thinking, we asked participants to tell us how they define a preferred viscose.

As there is currently no third-party industry standard for pMMCs, we instead asked companies to provide evidence of a forest policy and further details of work at the forest level. 38% told us they were members of Canopy, and 18% are involved in Canopy audits of their suppliers. 40% have a system in place to map their supply chains, with 8% relying directly on supplier information.

HOW COMPANIES ARE DEFINING A PREFERRED VISCOSE:
- Viscose coming from producers that have been audited and verified by CanopyStyle and confirmed as having a low risk.
- Fibers from certified forests, and produced according to ecologically optimized methods.
- None of the raw materials used to make viscose/rayon are contributing to the loss of ancient and endangered forests, or originate from other controversial sources.
- Currently, viscose that is made out of cellulose coming from certified forests/plantations falls under our definition of preferred viscose. For the future, we are looking at other aspects to integrate.

EXAMPLES OF INVESTMENT ACTIVITIES
- Working directly with suppliers.
- Collaborating with Canopy.
- Encouraging suppliers to carry out Canopy audits.
- Ensuring all viscose comes from suppliers on the Canopy list.
- Internal benchmarking on MMC sourcing and processing.
- Long-term relationships and vertical integration.
- Mapping supply chains and building greater transparency.
- Implementing corporate policies to combat deforestation.

Section 2: Supply Chain Deeper Dive

HOW COMPANIES ARE DEFINING A PREFERRED VISCOSE:
Section 3: Consumption
Performance

There is much work to be done by companies to increase uptake of preferred MMCs. However, closing the gap on conventional viscose must be achieved in parallel with sector-level agreement on the definition of preferred (beyond the forest and into the factory), the development of tools for improving transparency, and other sustainability related issues.

Analysis for Section 3 is based on aggregated data from both the PFM Benchmark and the PFM Consumption Tracker (i.e. all 97 participants). A positive score for SMART Targets includes having a portfolio or specific target, or having achieved 100% preferred.

The number of companies able to disclose consumption data increased slightly over the previous year. Uptake of pLyocell volumes alone grew 200%, from 3,559 MT to 10,670 MT, along with the wider pMMC scope.

38% of pMMC participants have set SMART targets for uptake.

<table>
<thead>
<tr>
<th>MMC Type</th>
<th>SMART Targets</th>
<th>Consumption Reporting</th>
<th>PFM Uptake</th>
</tr>
</thead>
<tbody>
<tr>
<td>Preferred Lyocell</td>
<td>21</td>
<td>71</td>
<td>33</td>
</tr>
<tr>
<td>Preferred Modal</td>
<td>27</td>
<td>59</td>
<td>30</td>
</tr>
<tr>
<td>Preferred Viscose</td>
<td>26</td>
<td>60</td>
<td>33</td>
</tr>
</tbody>
</table>
As in previous sections, scores for consumer engagement do not clearly identify a lead module, although pLyocell takes the slightly higher ground with stronger scores for both labeling and communications, and monitoring of business benefits.

The majority of participants are labeling their pMMC products. 50% are using their own labels and a third are using supplier branding, such as LENZING™ Lyocell and LENZING™ Modal.
Preferred Fiber & Materials Benchmark

Spotlight on Preferred Down

INSIGHTS 2017

Preferred Down Module:

01 / Responsible Down / Traceable Down

PHOTO: ALLIED FEATHER & DOWN
Preferred Down and the SDGs

Preferred down focuses on the welfare of the ducks and geese whose down and feathers are used in outdoor wear and home textiles. Live plucking and force feeding are banned.

Preferred down impact savings

Currently, there is no environmental impact data to report. The key benefit of preferred down is improved animal welfare. From data reported in 2017, an estimated 88.3 million birds received improved welfare conditions through participants’ adoption of the Responsible Down Standard or the Traceable Down Standard.

SDGs impacted by transitioning to use of preferred down

Beyond SDG 12, preferred down has linkages to SDG 2: *End hunger, achieve food security and improved nutrition and promote sustainable agriculture*. Potentially, there are linkages to other SDGs, such as ending rural poverty, and ensuring healthy lifestyles.

Preferred Down Portfolio Performance

Index scores for preferred down have improved by 48% between 2016 and 2017. Performance growth is matched by growth in participation, with the number of participants completing the pDown module rising by 43%, from 23 to 33. This indicates that animal welfare is increasingly important for companies sourcing down and feathers.
Section 2: Supply Chain Performance

Both the Responsible and Traceable Down Standards provide animal welfare criteria for the raising of ducks and geese. Chain of custody from the farm to the final product gives companies confidence that only down from these birds is in their consumer goods.

Scores improved for supply chain in 2017 compared to 2016, with companies scoring particularly well for chain of custody and fairly well for supplier mapping but low for investment. This means there is possibly more to be done to support and strengthen the supply base.

Section 2: Supply Chain Deeper Dive

Chain of Custody
- Partial coverage: 12%
- Full coverage: 88%

Third Party Standards:
- Responsible Down Standard (RDS) - 77%
- Traceable Down Standard (TDS) - 8%
- Other e.g. Downpass - 8%
- Combination - 15%

Examples of Investment Activities
- Continued dialogue and relationships with suppliers.
- Cooperation with vendors.
- Commitment to nominated suppliers.
- Regular visits to farms, local collectors, slaughter houses, processing factories.
- Staff education.

Scores improved for supply chain in 2017 compared to 2016, with companies scoring particularly well for chain of custody and fairly well for supplier mapping but low for investment. This means there is possibly more to be done to support and strengthen the supply base.
Section 3: Consumption Performance

Companies are performing well in this section, particularly in uptake, which is where it counts. The average score in consumption of preferred down was well above the index average, and considerably higher than the 2016 score.

Consumption Reporting

- 2016: 39% of pDown participants reported consumption data
- 2017: 46% of pDown participants reported consumption data

Uptake of Preferred Down

- 2016: 879 MT
- 2017: 1,927 MT

The number of companies able to report consumption figures has grown slightly between 2016 and 2017, while volumes reported have more than doubled. Growth is expected to continue as more companies transition to certified down in apparel and home textile products.

Section 3: Consumption Deeper Dive

- 67% of pDown participants have set SMART targets.

Analysis for Section 3 is based on aggregated data from both the PFM Benchmark and the PFM Consumption Tracker (i.e. all 97 participants). A positive score for SMART Targets includes having a portfolio or specific target, or having achieved 100% preferred.
Section 4: Consumer Engagement

Performance

Companies are still in the early stages of developing a consumer engagement strategy. Scores have improved over the two years of reporting, but are sitting below the overall index average for consumer engagement.

Deeper Dive

A high number of companies are labeling down products, using both their own labels and third party logos. Just over a third of participants have developed a consumer strategy, suggesting room for improvement for many. Opportunities also lie in monitoring and evaluating the business benefits to inform strategy.

36% of pDown participants have a strategy to engage customers on the associated sustainability benefits.
We are thinking boldly about how we can leverage our size and scope to address global problems, from reducing our environmental footprint to improving livelihoods at all points in our supply chain.

Brian C. Cornell, Board Chairman and CEO, TARGET
From 2016 Target Corporate Social Responsibility Report
What Is a Preferred Fiber or Material?

Textile Exchange describes a preferred fiber or material as **ecologically and/or socially progressive** and has been selected because it has **more sustainable properties** in comparison to other options.

**Preferred Fibers or Materials Have:**

- A recognized industry standard in place which confirms its status as preferred.
- Sustainability criteria developed and maintained through a formalized multi-stakeholder process.
- Been objectively tested or verified as having sustainability attributes, such as through a peer-reviewed Life Cycle Assessment (LCA).

Now-available data is proving that some of the biggest sustainability impacts and “hotspots” of textile production occur at the growing and extracting of raw materials.

A portfolio approach involves building a suite of preferred fibers and materials, from a choice of preferred options, through the consideration of impacts and organizational priorities. It involves embedding a strategy that leads to preferred options replacing unsustainable or less sustainable options.

**A Portfolio Approach to Preferred Fiber & Materials**

**Benchmark Portfolio Options:**

The PFM Benchmark Program allows participants to build their own portfolio based on the PFMs their company is implementing. The survey currently offers modules on the following PFMs:

- Better Cotton Initiative
- Cotton made in Africa
- Fair Trade Cotton
- Organic Cotton
- Organic-Fair Trade
- REEL Cotton
- Recycled Cotton
- Better Cotton Initiative
- Recycled Polyester
- Preferred Lyocell
- Responsible/Traceable Down
- Recycled Nylon
- Preferred Modal
- Downpass Certified
- Manmade Cellulosics
- Biosynthetic Polyester
- Preferred Viscose
- Organic Wool
- Biosynthetic Nylon
- Recycled Cellulose
- Responsible Wool
- Manmade Cellulosics
- Organic-Fair Trade
- REEL Cotton
- Responsible Wool
- Animal Fibers
- Recycled Down
- Recycled Wool
- Recycled Wool
- Recycled Wool

**What Is a Preferred Fiber or Material?**

**Now-available data is proving that some of the biggest sustainability impacts and “hotspots” of textile production occur at the growing and extracting of raw materials.**

*A movement away from practices that depend on fossil-based feedstocks and chemical inputs, cause depletion of natural resources, or result in environmental degradation, or cause human or animal welfare issues, towards practices that lead to wellbeing and prosperity for all, while conserving or enhancing the natural environment.*
What Is the PFM Benchmark?

Companies using the Benchmark follow a self-assessment process which is intended to help them identify strengths in their management and performance and gaps where future progress can be made. By comparing their scores with those achieved by the entire group of participants, companies can plan their improvement efforts and priority action areas.

The steps involved in Benchmarking

| Identify | Identify gaps for improvement and reinforce good practice. |
| Track   | Track progress over time and drive continuous improvement. |
| Benchmark | Benchmark against peers and leading practice. |
| Engage  | Engage leadership and raise awareness internally. |

Benchmarking, learning and action is not a one-time project. It is a driver of continuous improvement.

Powered by 73bit

The PFM Benchmark is managed through a portal called “Probench” developed by our software partners, 73bit Ltd. Probench is also home to other important benchmarking programs such as the United Nations Finance Initiative (UN-Fi), the United Nations Principles for Responsible Investment (UN-PRI), Access to Nutrition Index (ATNF), and the Business Benchmark on Farm Animal Welfare (BBFAW).

The PFM Benchmark Framework

The Benchmark framework follows a systematic approach to integrating preferred fibers and materials into business strategy.

Section 1 Corporate Strategy (25%)
- Q1 Corporate Values
- Q2 Sustainability Strategy
- Q3 Risk Assessment
- Q4 Goals
- Q5 Policies
- Q6 Accountability
- Q7 Responsibility
- Q8 Rating Tools
- Q9 Textile Circularity

Section 2 Supply Chain (30%)
- Q12 & Q13 PFM Portfolio
- Q14 Chain of Custody
- Q15 Traceability
- Q16 Trade Relations
- Q17 Pricing Model
- Q18 Sustainability Investment

Section 3 Consumption (30%)
- Q19 History
- Q20 SMART Targets
- Q21a Consumption Reporting
- Q21b Uptake
- Q22 Product Ranges
- Q23 Key Markets
- Q24 Estimated Sales

Section 4 Consumer Engagement (15%)
- Q25 Establishing Brand Identity
- Q26 Product Marks & Labeling
- Q27 Monitoring Business Benefits
- Q28 Calculating ROI
- Q29 Consumer Strategy
- Q30 Evaluation of Consumer Strategy

A Closer Look at the Survey

Please find a summary of the survey here: Survey Summary
strategies been in leading to increased use of a PFM? Total volumes are a good indicator but it is important to consider the percentage of overall fiber or material usage that is converted to a preferred version. This is why the percentage breakdown of overall fiber or material usage is of particular interest, as it allows a company to reflect on the rate of conversion and growth trends alongside absolute volumes.

SECTION 4: CONSUMER ENGAGEMENT

Consumer engagement is the interaction of customers with a company, and with one another. Initiatives for engagement can be either consumer or company-led and the medium of engagement can be on or offline. Communication channels include the use of in-store or on product messaging, labels, campaigns and cause-related marketing, and increasingly through social media. In this section we take a look at the marketplace for products made using preferred fibers and materials, and whether companies are seeing any return on their investment. We ask how they communicate a product’s sustainability attributes, raise their customers’ awareness of sustainability issues, and educate them on how to make more sustainable choices. We also ask whether companies are monitoring and evaluating the impact of their customer engagement activities and if this information is used to inform strategy.

How Does the Benchmark Work?

The Benchmark framework follows a systematic approach to integrating preferred fibers and materials into business strategy.

Sections of the PFM Benchmark

SECTION 1: CORPORATE STRATEGY

Corporate Strategy looks at how preferred fiber and materials are integrated into business, and the tools companies use to guide more sustainable sourcing decisions. It also identifies who holds accountability and responsibility to deliver on fiber and materials sustainability.

SECTION 2: SUPPLY CHAIN

Supply chain integrity, and the corresponding product integrity, is the linchpin of sustainability in the textile industry. In this section we look at the ways companies are addressing issues in their supply chain, are working with suppliers to make improvements, and achieve product integrity, including the use of chain of custody standards and initiative guidelines for verifying the content of a preferred fiber or material. Certification to standards is one of the strongest ways to ensure that product claims are accurate and able to be verified. Ultimately, the goal is to move towards transparent and trusting supply chain partnerships which allows companies to closely manage risk and co-create more resilient trade relations that share value fairly through their supply network.

SECTION 3: CONSUMPTION

This section moves away from strategy and supply chain management to look at the hard numbers. How effective have these strategies been in leading to increased use of a PFM? Total volumes are a good indicator but it is important to consider the percentage of overall fiber or material usage that is converted to a preferred version. This is why the percentage breakdown of overall fiber or material usage is of particular interest, as it allows a company to reflect on the rate of conversion and growth trends alongside absolute volumes.
With financial support from Tchibo and the C&A Foundation, Textile Exchange launched and piloted the Preferred Fiber & Materials (PFM) Benchmark Program.

2015 was the pilot year, seeking feedback from companies and other experts to develop the “PFM Index,” complete with scoring and weighting which would allow a company to be ranked amongst its peers.

The first fully weighted and scored PFM Index was released. The Index revealed to a company its position in relation to peers and the overall universe of participants.

2016 results provided the baseline for comparing the 2017 results presented in this report.

2017 saw Benchmark participation continue to grow. This year, Textile Exchange introduced the PFM Consumption Tracker, an alternative lighter survey enabling companies to submit an abridged set of data and receive a condensed feedback report but no benchmark.

This year’s Insights report provides the second year of benchmarked results and the first year-on-year comparisons between the 2017 and 2016 results.

2018 marks the third year of the PFM Index. Despite the introduction of a preferred wool module, the survey will remain in its current construct to enable three years of fairly consistent measurement.

Progress reports that track the new Sustainable Cotton Commitment and the Recycled Polyester Commitment will be produced for the first time this year.

Also in 2018 Textile Exchange will review the survey, scoring methodology, and partnerships going forward. This review is likely to result in some exciting changes for 2019.

Framework for Mapping the PFM Benchmark to the United Nation’s Sustainable Development Goals

**UN Targets**

SDG 12

- 12.2: By 2030, achieve the sustainable management and efficient use of natural resources.
- 12.5: By 2030, substantially reduce waste generation through prevention, reduction, recycling, and reuse.
- 12.6: Encourage companies, especially large and transnational companies, to adopt practices and to integrate sustainability information into their reporting cycle.

**UN Indicators**

<table>
<thead>
<tr>
<th>UN Targets</th>
<th>Cotton</th>
<th>Synthetics (polyester)</th>
<th>Manmade Cellulosics</th>
<th>Animal Fiber (down)</th>
</tr>
</thead>
<tbody>
<tr>
<td>12.2:1: Reduced material footprint</td>
<td>Water, energy, GHG emissions (savings)</td>
<td>Water, energy, GHG emissions (savings)</td>
<td>Water, energy, GHG emissions (savings)</td>
<td>TEO</td>
</tr>
<tr>
<td>12.5:1: Tons of material recycled</td>
<td>Recycled cotton (volume)</td>
<td>Recycled polyester (volume)</td>
<td>Recycled cellulose (volume)</td>
<td>Recycled down (volume)</td>
</tr>
<tr>
<td>12.6:1 Number of companies reporting data through the PFM Benchmark program</td>
<td>pCotton reporting rates (number of companies)</td>
<td>pPolyester reporting rates (number of companies)</td>
<td>pMMCs reporting rates (number of companies)</td>
<td>pDown reporting rates (number of companies)</td>
</tr>
</tbody>
</table>

**UN SDG 12**

- Reduced material footprint
- Tons of material recycled
- Number of companies reporting data through the PFM Benchmark program

**UN SDG 12 Targets**

- 12.2.1: Reduced material footprint
- 12.5.1: Tons of material recycled
- 12.6.1 Number of companies reporting data through the PFM Benchmark program

**SDG future mapping**

The PFM Benchmark will continue to map and measure linkages between adoption of preferred fiber and materials and the SDGs.
Appendix 01 / PFM Program Cycle

INSIGHTS 2017

Participation

The population or universe is brands/retailers of textile and apparel goods. The group of participants who complete the survey is the Index population.

Participants are benchmarked against the entirety of participants and also their most common peer group (sub-sector). There are five sub-sector categories.

Multi-Sector/Apparel (Extra Large) - Extra large apparel and multi-sector brands and retailers. Submissions from holding companies are also included in this sub-sector.

Apparel (Large) - Large and mid-size brands and retailers of predominantly apparel.

Apparel (Small/Medium) - Small to mid-size apparel brands and retailers. Also includes submissions based on “product line” (even if the company size would place them in Large or Extra Large).

Outdoor/Sports - Brands and retailers, all sizes, of outdoor and sportswear.

Home Textiles - Brands and retailers, all sizes, of exclusively or predominantly home textiles. Catering and hospitality companies are also included in this sub-sector.

Year-on-year comparability

The PFM Benchmark is a voluntary program and while retention rates are high, there is some variation in the number of participants from year to year. Therefore, the results reflect changes in participation as well as changes in survey scores. It is important to note that:

- Companies complete individual PFM modules relevant to their operations. Each module will have a different number of participants.
- Aggregated data, such as consumption volumes, are incomplete due to participants varying abilities to disclose information.
- To arrive at the consumption figure for 2017, data from both the PFM Benchmark survey and the Consumption Tracker have been aggregated.
- Data cycles are on a 12-month basis, however this may be by calendar year, financial or otherwise as decided by the company.
- Since participation rates have been low for Fair Trade, Cotton made in Africa, and REEL Cotton, results for these PFMs have not been included in the public report.

Estimation of company turnover

For each survey, participants are asked to provide estimated turnover for the financial year. Where this is not provided, Textile Exchange estimates the company’s turnover based on desktop research. Note, for companies operating across multiple sectors (beyond apparel and textiles), estimated turnover is not scaled to its textile business only.
PFM Benchmark Program Cycle

1. Invitation to participate
All brands and retailers in Textile Exchange’s global database are invited to participate in the PFM Benchmark each year. In 2017, the universe of invited companies held 500+ brands and retailers.

2. Registration
Companies take part in the PFM Benchmark through a secure online portal. The technology platform, Probench, is powered by the India-based company 73bit. Each company must register to access their unique online portal, where their survey is stored. Upon registration, companies are issued with access details and a secure pass code.

3. Submission window
The survey is launched at the beginning of April each year. Participants have a six-week window to complete and submit their survey.

4. Reporting cycles
The information and data submitted by companies should be based on their previous years activities. 2017 results are based on the company’s 2016 reporting cycle, 2016 results are based on 2015, etc. Textile Exchange is not prescriptive and prefers the company to use its existing data collection/reporting cycles. The only requirement is that companies are consistent year to year.

5. Company support
Textile Exchange believes that self-assessment is the starting point for action and improvement. However this may lead to limitations in the information provided by companies and the misinterpretation of questions. To minimize the inherent constraints of a self-assessed survey, TE supports participants throughout all phases of the process.

6. Survey completion and submission
Companies appoint a survey lead to ensure the survey is completed, reviewed, signed off and submitted on time.

7. Sign-off
Submissions are only considered valid and included in TE analysis if they are formally signed off by the company’s survey lead. Sign off involves uploading a sign-off sheet when submitting survey responses.

8. Review process
Submission reviews are carried out by Textile Exchange during June/July.

First review: completeness, consistency and adequate supporting evidence
The Textile Exchange team reviews the survey and supporting documentation for each company. If there is any information missing then TE, with the agreement of the company, will make the necessary amendments. Queries are raised with the company by phone and/or email. During this time, the TE team can join online meetings or make company visits. The TE team works to a common review template which helps to maintain a consistent approach across reviewers.

Second review: Standardization
To ensure consistency across reviews, a sample of submissions (at least 50%) receive a second review carried out by a single individual.

9. Data analysis
Scores are generated automatically for the company feedback reports. The Textile Exchange team reviews the data, scoring system and aggregation of scores before issuing any reports. Data analysis is carried out for the different sub-sectors and sector averages for the index are calculated. Both quantitative and written analyses are prepared. For information on scoring and weighting, see Appendix 2: Scoring methodology.

10. Report preparation
When any report is prepared, the Textile Exchange team reviews the data used to ensure the information reported is accurate.

11. Report dissemination
Customized company feedback reports are generated for all participating companies. Company reports are complementary and designed to incentivize performance improvement. Company results are shared confidentially with participants, followed by the public release of the Insights report.

The Insights report is produced for wider communication of sector and sub-sector results. The Insights report is publicly available and aims to inform a wider set of stakeholders on the status, trends and general progress of the textile industry.

In 2016, the PFM Benchmark was linked to the United Nations Sustainable Development Goals (SDGs), in particular SDG12: Ensure sustainable consumption and production patterns.

12. Program review

Stakeholder consultation:
Each year, on the release of the results, Textile Exchange carries out a consultation survey to seek feedback and suggestions for improving the program. The ultimate aim is to create a benchmarking tool that truly adds value to the sector and contributes to company performance improvement.

Review committee and process:
Textile Exchange is creating a review committee and process to support the continuous improvement of the program.

Implementation:
On completion of the stakeholder consultation and internal review, program improvements, including system upgrades, are carried out in time for the launch of the next cycle.
PFM Benchmark Scoring Methodology

Data Submission

Questionnaires are completed on a voluntary and self-reporting basis. While TE carries out a consumption data review, a survey review and a consistency check, it assumes that all data provided is inherently correct.

Construction of Question Scores

Question scores are achieved based on responses entered for each question, and are always out of 100. Each question carries a question weight.

Construction of Section Scores

Section scores are the aggregation of question scores, multiplied by the question weight in a particular section. There are four sections - 1: Corporate Strategy, 2: Supply Chain, 3: Consumption and 4: Consumer Engagement. Sections 2, 3 and 4 are module based. Each section carries a section weight.

Construction of the PFM Index

The PFM Index result comprises of a company’s Section 1 score plus the average score for Sections 2, 3 and 4 for a company’s top three performing modules. A company’s top three performing modules are ranked on the entirety of the module and not according to sections.

Construction of PFM Module Scores

PFM module scores are the accumulation of section scores, multiplied by the section weight in a module. There are twelve scoring modules to select from: OFT, OC, FT, CmiA, BCI, REEL, rCotton, rPET, pLyocell, pModal, pViscose and pDown. Modules are based on a company’s selection.

Averaging

If a company completes one to three PFM modules, all completed modules will be averaged. If a company completes more than three PFM modules, only the top three scoring modules will be averaged and included in the Index results.

PFM Benchmark Barometer

Leading (>80): Leading the field
Progressing Well (70-79): Activities maturing and leadership is emerging.
Establishing (60-69): Building on the foundations and developing further.
Developing (40-59): Laying the foundations.
Starting Out (<40): Beginning the journey.
PFM Benchmark
Consumption Data

Consumption data is provided by companies on a voluntary basis in one of two ways:

1. Product Details

Companies can provide consumption data for each product. For each product, companies will need to specify the product range, number of units produced, the average weight per unit and the average blend per unit. The online calculator will then calculate a default waste factor, from product to fiber, for pCotton, rPET and pMMC. Companies can override the default should they have their own specific waste factors.

2. Bulk Fiber

Companies can also provide consumption data by specifying bulk fiber for pCotton, rPET and pMMC. In reporting bulk fiber, companies need to specify whether their calculations have taken account of waste produced during production. If their calculations do not allow for waste, Textile Exchange will adjust the data provided to allow for the default waste factors. This will result in an estimate of the true fiber usage.

Default waste factors are based on averages that Textile Exchange has collected from the industry and are as follows:

- **Preferred cotton:** 1.5 waste factor from product to fiber.
- **Recycled polyester:** 1.4 waste factor from product to staple fiber/filament.
- **Preferred manmade cellulosics:** 1.19 waste factor from product to staple fiber/filament.

Consumption data is self-reported by each company and, while all attempts are made to ensure that data is consistent with year-on-year reporting, auditing and/or verification of data is not carried out as part of the Benchmark Program.

From Consumption to Impact

Consumption data, where it has been provided, is used to estimate sustainability outcomes and impacts.

Impacts were calculated using the Higg MSI Tool provided by the Sustainable Apparel Coalition (SAC). The Higg MSI Tool assesses impacts of materials from cradle-to-gate for a finished material (i.e. to the point at which materials are ready to be assembled into a product). The Higg MSI scores provided herein are for a single production stage within the Higg MSI scope (e.g. fiber or raw material) and do not provide a holistic view of the impacts involved with material production.

Information was last retrieved on 4 May 2018. For more information visit the Higg MSI website (msi.higg.org).

PFM Benchmark
Modeled Outcomes & Impacts

Estimating Outcome Benefits

Land under more sustainable cotton agriculture: Certified organic land area (hectares) is based on data from Textile Exchange’s data collection program. Land under BCI, CmiA, and Fair Trade production is estimated based on data provided by each initiative.

Bottles diverted from landfill: Estimates of the number of PET bottles (recycled into polyester) are based on conversion factors shared by certification bodies.

Land under certified forestry: Calculations are based on Lenzing, 2010, LCA of MMC fibers. Consumption of pViscose, pLyocell and pModal is calculated back to land use based on assumptions in the study. Then aggregated on total land basis, irrespective of origin.

Birds covered by down standards: Geese and duck number estimations are based on conversions shared by key suppliers and J. Kozák, 2011, An Overview of Feathers Formation, Moults and Down Production in Geese.

Environmental Impact Modeling

Modeling of environmental “impact savings” associated with sourcing PFM’s is calculated against reported consumption volumes. Impact savings are calculated based upon the calculated impacts of each PFM, and subtracting these impacts from the projected impacts of sourcing the conventional fiber/material for the PFM volume.

Textile Exchange continues to explore a closer working relationship with the SAC, and many members who complete the PFM Benchmark are also SAC members and use the Higg Index to assess their sustainability impacts. Textile Exchange decided to root the modeling of impact reduction calculations in methodology and data from the Higg Materials Sustainability Index (Higg MSI). Textile Exchange’s ability to model impact reductions is limited by the primary data sources used in the Higg MSI, and by the LCA studies conducted to derive that data.

Preferred cotton: Calculations exclude pCottons where no robust LCA data exists (i.e. BCI, Fair Trade and REEL Cotton). Recycled cotton savings are based on Recover™ data. It can not be assumed that non-Recover™ recycled cotton products are achieving the same results.

Recycled polyester: To model impact reductions associated with converting from virgin to recycled polyester (rPET), Textile Exchange selected data on “semi-mechanically recycled polyester” to use as a basis of modeling as participants stated that mechanically recycled polyester represents the majority of their rPET use. This is also a conservative modeling of impact, representing a middle-ground between fully mechanically recycled and fully chemically recycled polyester.
Preferred manmade cellulosics:
Savings are based on Lenzings’ data. It cannot be assumed that non-Lenzing pMMC products are achieving the same results. To model impact reductions associated with converting from conventional to preferred viscose, Textile Exchange selected Lenzing’s LENCING™ ECOVERO™ and LENCING™ Viscose in compliance with EU Ecolabel requirements produced in Asia or Europe. This is the more conservative modeling of impact, although European pViscose was commonly sourced by Benchmark participants.

Climate Change: Midpoints from the Higg MSI have been used to calculate the global warming potential (GWP) savings associated with sourcing PFMs. Midpoints are based on the widely accepted IPCC published values.

Energy: Midpoints from the Higg MSI have been directly used to calculate Abiotic Resource Depletion Fossil Fuels savings associated with sourcing PFMs. As Abiotic Resource Depletion Fossil Fuels is quite a technical description of the midpoint, with support of the SAC, Textile Exchange has renamed this impact category as “Fossil Fuel Energy”. Scope includes the extraction and use of fossil resources based on availability and accessibility.

Water: Textile Exchange has consulted the primary source data used to develop Higg MSI midpoints to model impact reductions.

Savings Equivalencies

Water: Studies vary on how to model water savings to the number of people’s daily drinking water requirements. Generally, data recommends nearly 2 liters of water for women, and nearly 3 liters of water for men. If a person has a physically active job or lives in warmer climates, recommendations are 4.5 liters. For impact modeling, Textile Exchange has selected an average figure of 3 liters per person per day.

Climate Change: The greenhouse gas savings equivalencies are equated to the number of 747s flying from London to Delhi. (i.e. 3.32 MT of CO$_2$e per person per flight, and 416 passengers on a 747).

Energy: The energy savings equivalencies are equated to the number of 100-Watt light bulbs that can be powered for one year (i.e. 3,153.6 light bulbs).

Disclaimer
The Textile Exchange PFM Benchmark results are based on a company’s self-reported data for each fiber. While Textile Exchange reviews all data entries, checks calculations, and carries out consistency checks, it does not validate the more sustainable fiber/materials sourcing claims. That responsibility remains with the participating company.

The opinions expressed in this publication are those of Textile Exchange and do not necessarily reflect the views of any of our funders, member organizations or advisors.
PFM Benchmark

Descriptions of the PFMs

**PREFERRED COTTON**

Preferred cotton (pCotton) is a term used by TE referring to cotton that is ecologically and/or socially progressive because it has more sustainable properties in comparison to other conventional options. The preferred Cotton (pCotton) portfolio offers the largest number of module options. Options include:

**Organic-Fair Trade** cotton is cotton that is certified to both Fair Trade and organic standards. Fair Trade standards ensure farmers are paid a minimum price and require farmers to organize into democratic producer organizations. Organic farm standards ensure that the cotton is grown within a rotation system that builds soil fertility, protects biodiversity, and is grown without the use of any synthetic fertilizers, hazardous pesticides or GMOs.

**Organic cotton** is grown within a rotation system that builds soil fertility, protects biodiversity, and is grown without the use of any synthetic fertilizers, toxic pesticides or GMOs. The Organic Content Standard (OCS) and the Global Organic Textile Standard (GOTS) provide third party assurance on organic product claims. In addition, GOTS includes environmental and social responsibility in processing.

**Fair Trade** is a global movement to support small-scale, marginalized farmers and workers. Fair Trade standards require farmers to organize into democratic producer organizations and to have environmentally sound agricultural practices. In return, they are guaranteed the Fairtrade Minimum Price (FMP) and a Fairtrade Premium that goes towards community development. GMOs are banned in the Fair Trade standard.

**Cotton made in Africa** (CmiA) is an initiative of the Aid by Trade Foundation (AbTF) that helps smallholder cotton farmers in Africa improve their living conditions. Growers must meet minimum environmental and social requirements for their cotton to qualify as CmiA. GMOs are banned in the CmiA standard.

**Better Cotton Initiative** (BCI) sets out to improve the sustainability of mainstream cotton production. Growers must meet minimum environmental and social requirements for their cotton to qualify as Better Cotton. Continuous improvement is a key element of the BCI Assurance Program.

**The REEL Cotton Program** is CottonConnect’s three-year agricultural program providing farmers with training on sustainable cotton farming practices. The REEL Code is used to verify that farmers in the REEL Cotton Program are using more sustainable practices, with additional program elements that ensure traceability and decent work.

**Recycled cotton** (rCotton) has been re-processed from reclaimed cotton. The Recycled Claim Standard (RCS) and the Global Recycled Standard (GRS) are chain of custody standards to track the use of recycled content through the supply chain. The GRS, in addition, includes social and environmental requirements that must be met during the processing stages.

**PREFERRED MANMADE CELLULOSIC FIBERS**

**Preferred manmade cellulose (pMMC)** includes recycled cellulose (rMMC) used in apparel, household, and commercial products. rMMC can be either mechanically or chemically recycled into filament or staple fiber. The recycled cellulose (rMMC) meets environmental requirements that must be fully and transparently traced.

**Feedstocks** All feedstocks must be low risk of being sourced from ancient and endangered forests as verified by publicly available CanopyStyle Audits, and certified to a forest sustainability standard (e.g. FSC). The goal is that all sources of feedstock maximize FSC-certified feedstocks.

**Responsible Down** The Responsible Down Standard (RDS) is an independent, voluntary global standard, which means that companies can choose to certify their products to the RDS, even if there is no legislation requiring them to do so. Among other animal welfare criteria, the RDS excludes feathers/down from birds that have been live plucked or force-fed.

**Traceable Down** The NSF Global Traceable Down Standard (Global TDS) ensures that down in apparel, household, and commercial products comes from a responsible source that respects animal welfare and can be fully and transparently traced.

**PREFERRED DOWN**

The preferred down (pDown) portfolio currently incorporates products certified to either the Responsible Down Standard (RDS) or the Traceable Down Standard (TDS). A wider pDown portfolio is under discussion to include other more sustainable options, such as down certified to the DOWNPASS Standard, and recycled down.
pulp to validate sustainable forest practices. Where LCAs confirm lower impact, waste inputs are preferred such as left-over straw and recycled cotton inputs.

**Manufacturing** pMMCs must be produced according to Best Available Technologies in regards to water, energy, chemicals, waste, etc. Standards include EU Ecolabel and OEKO-TEXSTeP.

**Traceability** Companies should be mapping suppliers, and implementing a traceability management system. The CanopyStyle Audits create traceability from forest to pMMC producer. Some suppliers offer traceability through their own systems.

**Impact** There is demonstrated environmental impact savings of the pMMC fiber compared with generic viscose, validated via an independent intermediary such as the Higg MSI or Life Cycle Assessments validated by a noninterested party.

The PFM benchmark currently offers modules for preferred lyocell e.g. Lenzing™ Lyocell, preferred modal e.g. Lenzing™ Modal, and preferred viscose e.g. Lenzing™ ECOVERO™ and Lenzing™ Viscose with EU Ecolabel. Preferred lyocell is best in class, made in a closed-loop system that recycles the majority of the solvent used. Technologies for chemically recycling cellulose materials are increasingly providing opportunities to replace virgin inputs, and will be considered in this program in the future.

**Farm standards and initiatives for preferred cotton**

**Chain of custody standards for organic fibers and materials** (GOTS also includes textile processing)

**Chain of custody standards for recycled fibers and materials** (GRS also includes textile processing)

**Forestry standards and initiatives for the sourcing of preferred manmade cellulosics**

**PFM Benchmark Glossary**

**Business models:** Success for all depends upon re-imagining and re-engineering supply chains to improve business security for the entire supply network to scale up. Incubating new ways of working, driving best practice, and ensuring product integrity is integral to improved business models and the resilience of the sector.

**Consumer engagement:** The consumer is part of the value chain. Educating and driving consumer demand for products made using PFM are part of the business model. Brands and retailers need to see a return on investment. They invest significantly in product placement and talk directly to their customer, so consumer engagement is critical.

**Index:** The underlying score used to determine a company’s position in the PFM Index. Scores and rankings are reported confidentially to each company.

**Integrity:** Making truthful claims; integrity is essential in maintaining the trust of farmers, processors, sellers and consumers, and in ensuring that the targeted social and environmental benefits are actually achieved.

**Materiality:** A materiality assessment is an exercise in stakeholder engagement designed to gather insight on the relative importance of specific environmental, social and governance (ESG) issues.

**Recycled Polyester Commitment:** Signatories have committed or are supporting an increase in their use of recycled polyester by at least 25% by 2020. The commitment will be tracked via participation in the rPET module of the PFM Benchmark survey.

**Supply chain:** The progression of business entities involved in the supply and purchase of materials, goods, or services, from raw materials to the final textile product.

**Sustainable Cotton Challenge:** Signatories have committed to ensuring that 100% of the cotton they use comes from sustainable sources by 2025. The commitment will be tracked via participation in the pCotton module of the PFM Benchmark survey.

**Transparency:** Disclosure relating to the operations, inputs, and materials used in the production of a final product.

**Metrics**

- **Carbon dioxide equivalent (CO₂e)** is a term for describing different greenhouse gases in a common unit. For any quantity and type of greenhouse gas, CO₂e signifies the amount of CO₂ which would have the equivalent global warming impact.
- **Hectare** (ha) is equal to 10,000 square meters or 2.471 acres.
- **Litter** (L) equal to 1 cubic decimetre (dm³), 1,000 cubic centimetres (cm³) or 1/1,000 cubic metre.
- **Megajoule** (MJ) is equal to one million joules.
- **Metric Ton** (MT) is equal to 1,000 kilograms.

Find a full list of Terms and Definitions here.
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PFM Benchmark Resources

- PFM Benchmark program - visit website here
- Probench portal - visit website here
- Company feedback report (sample) - download document here
- Survey guidance notes - download document here
- Survey question elements - download document here
- Program FAQs - visit website here
- SDG resources - visit website here
- Recycled Polyester Commitment - visit website here
- Sustainable Cotton Commitment - visit website here

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The Global Goals can only be met if we work together.

International investment and support is needed to ensure innovative technological development, fair trade, and market access, especially for developing countries. To build a better world, we need to be supportive, empathetic, inventive, passionate and, above all, cooperative.
Want to find out more about the Preferred Fiber & Materials Benchmark?


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