



# Material Change Insights 2021

The state of fiber and materials sourcing



The Corporate Fiber & Materials Benchmark program is the largest peer-to-peer comparison initiative in the textile industry, generating the Material Change Index (MCI) among other benchmarks. It tracks the apparel, footwear, and home textile sector's progress toward more sustainable materials sourcing, as well as alignment with global efforts like the Sustainable Development Goals and the transition to a circular economy.



Corporate Fiber & Materials  
Benchmark Program

# Foreword

## Leveling Up on Materials Leadership

When we first launched the Corporate Fiber & Materials Benchmark (CFMB) program seven years ago, if a brand was using organic cotton or recycled polyester in a collection or two, that counted as leadership in materials sustainability. Today, this report sits in an altogether different context. We have just seen the use of preferred materials pass 50%. It's not just about incorporating more sustainable fiber choices here and there anymore, but rapidly phasing out your conventional ones.

To be a leader these days, a company must take a balanced and integrated approach to its raw materials strategy and look holistically at its risks and returns. Decisions are interconnected.

Terms such as “systems-thinking” and “intersectionality” are essential to the vocabulary for transformational change in materials sustainability. Among the unavoidable complexity, it is possible to achieve multiple benefits through taking the right action while also looking out for any unintended consequences.

### From Management to Stewardship

The ability to trace raw materials back to their origins is facilitating the shift from materials portfolio management to the wider concept of stewardship.

The act of stewardship enables a company to see its contribution to a greater good. It allows for the consideration of geographies, of important stakeholders in the production landscape, and where to prioritize action. It lets change happen in partnership with others, such as traditional landowners and Indigenous people.

Material Change requires all of us to become investors and partners in the transition: land regeneration, habitat restoration, biodiversity recovery, and climate stabilization.

### Building Forward Better

The last few years have taught us that right at the core of everything we do lies the need for humanity and a “just transition” that promotes cultural and intergenerational equity as we transition to a decarbonized, regenerative and circular economy. All this, and more, must be part of an adaptive and iterative leadership equation for Material Change.

And as we all look to the trailblazers for direction (thank you to all of our Material Change companies!), we know that partnership must be the new leadership. Working in collaboration allows for a “leaderful” approach to accelerating and scaling positive impact. We need to look at leadership as a movement that we can all contribute to in varied ways. Leaders must enable others to lead, too.

This year's Insights report takes the reader on a journey through the 12-month sourcing and management practices of 292 brands and retailers. We “pause” to acknowledge the disrupting influence of COVID-19 that year, and we share the wise counsel of some of our seasoned benchmarkers.

The message back to us—and out to you in this report—is that we've not seen the last of global unrest and supply chain disruption. How we “build back better” and find the innovation, imagination, and resilience to enable us to keeping building forward better will be what counts. This we know we can only do if we transition fairly.

## Looking Back, Moving Forward

Over the next eight years of this decisive decade, as defined by the 2030 Global Goals, the Corporate Fiber & Materials Benchmark program will continue to build participation and share industry progress through the Material Change Index and its suite of public-facing tools and reports.

Turning the corner from exploitative to regenerative and circular models of doing things will take all the effort and collaboration we can gather. Every one of the next eight years counts.

With this urgency in mind, we are restructuring our benchmark, ratcheting up expectations in ambition and rewarding action that results in real and meaningful change aligned with our Climate+ strategy. As always, this process is informed by the companies doing the work—and we will be looking to our participants for guidance on how best to support and track progress.

But more about that later, right now let's take a closer look at the MCI Results and the Class of 2021.

– **Liesl Truscott**  
Corporate Benchmarking Director, Textile Exchange

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### Disclaimer:

The Textile Exchange Corporate Fiber & Materials Benchmark program is externally assured by [ELEVATE](#) in accordance with the Global Reporting Initiative (GRI) guidelines. The Textile Exchange Material Change Index is based on participant self-assessment. While Textile Exchange reviews all data entries, checks calculations, and carries out consistency checks, it does not verify the accuracy of the data or disclosures within a company's survey submission, or the process of preparing the disclosures. 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 participants, funders, member organizations or advisors.

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- 73bit

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- Sustainable Apparel Coalition
- Higg

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- Textiles 2030
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- World Benchmarking Alliance

# Executive Summary

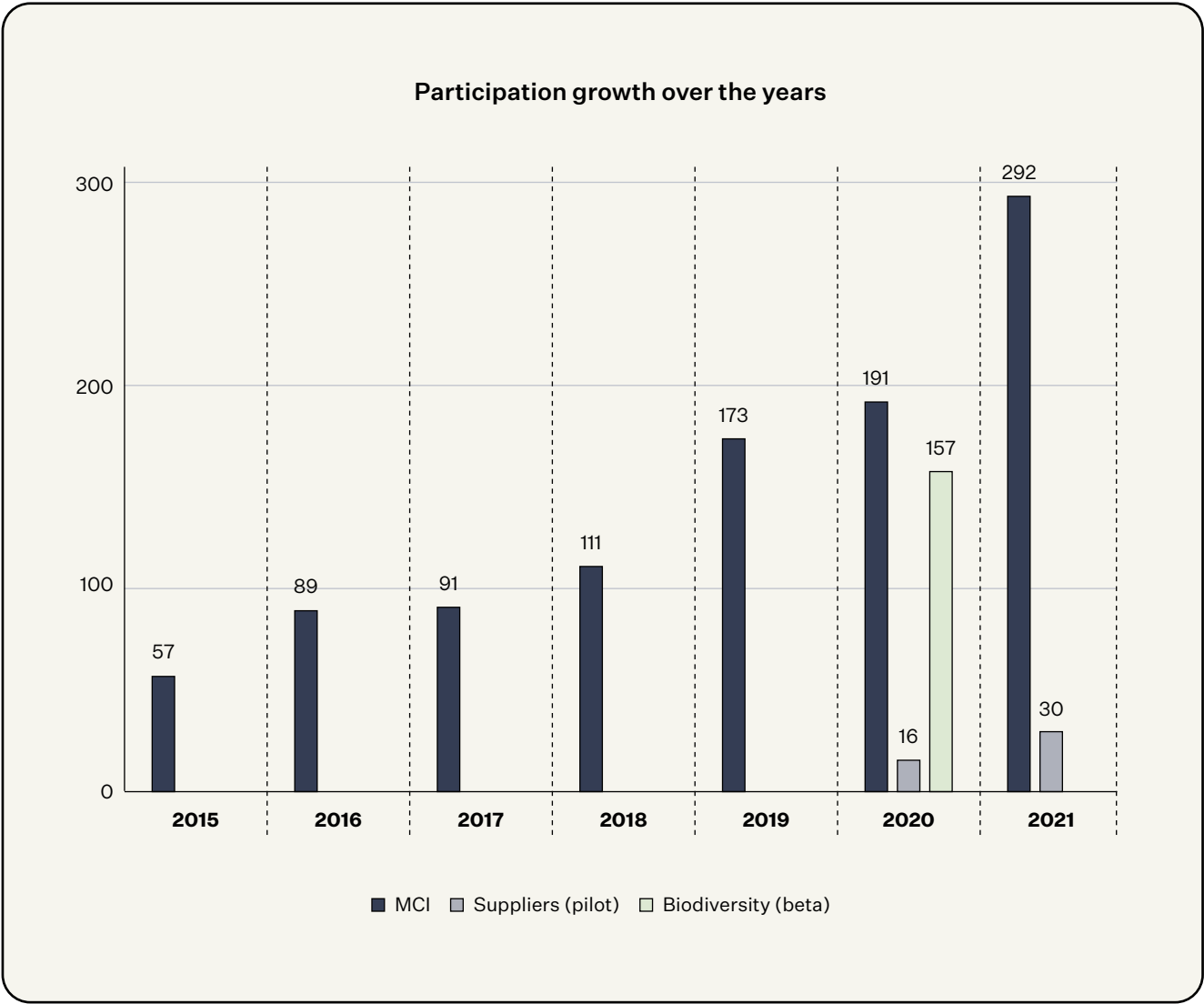
# Executive Summary

Congratulations to all 292 companies creating material change in 2021. We are pleased to report that 78% of returning companies improved their Material Change Index (MCI) score this year and we welcomed 101 new companies.

Participation in the MCI grew 53% over the previous year. Numbers went from 191 to 292 brands and retailers (including their subsidiaries). In addition, the number of suppliers piloting doubled, and the biodiversity benchmark attracted 157 companies in its first “beta” version.

Performance-wise, the Index average remained in Level 3 (Maturing), falling only slightly from 69.1 to 68.5 despite the arrival of 24 new companies. The range of scores spanned from 28.4 to 87.2 out of a possible 100 points.

At Textile Exchange we celebrate the bold and conscientious participation and progress shown by each participating company and make it our mission to drive material change.



# Executive Summary

## Six key insights

### #1: MCI preferred materials hit the 50% tipping point.

For the first time, the Index has reached 50% preferred materials use (up from 44% the previous year). Preferred cotton now represents 65% of overall cotton used by participating brands, and recycled polyester jumped to 32% of polyester use, compared to 21% the year before. COVID-19 impacted participants' sourcing patterns, meaning that overall consumption of materials was only marginally higher this year (1.3%) despite increased participation, yet preferred materials increased by 15%. Time will tell if this was due to the pandemic or a real sign of shifting to preferred, or even an early sign of "dematerialization". For now, it is rewarding to see the favorable shift in proportions moving towards preferred.

### #2: Growth in recycled materials dominated by non-textile inputs.

Progress has been made in the uptake of recycled inputs, which now represent 29% of synthetic fibers, and 12% of materials overall. This growth in recycled is predominantly dominated by plastic packaging waste. While in the short-term the substitution of virgin polyester by recycled has merit, the push must continue from plastic packaging waste to textile-to-textile. Our data shows that there was only a slight increase in the textile-to-textile share. Post-consumer textile waste is now at 1.49% of recycled inputs, and 0.18% of textile use overall, as reported by participating brands.

### #3: GHG decrease reflects slower growth as well as an increase in recycled.

Greenhouse gas (GHG) emissions fell by 5% last year, which reflects a saving of 1.9 million tonnes of CO<sub>2</sub> equivalent emissions when compared to a conventional materials portfolio. This decline is influenced by the COVID-19 "low-growth" 1.3% scenario (compared to a "business as usual" scenario of 3%), as well as from the conversion to preferred materials, particularly recycled polyester. GHG results are modeled using the Sustainable Apparel Coalition's Higg Material Sustainability Index (Higg MSI) and its available data sources.

### #4: Land under improved practices increasing, but metrics need to link to geographical context.

The MCI now represents over five million hectares of cropland, grazing, and forestry under improved practices, such as sustainability programs and certification. Over one million more hectares than last year, but still only 17% of the total land area from which land-based materials were sourced by Index participants in 2020. To date, our modeling can approximate land area, numbers of fiber-producing animals covered by standards, and similar. However, linking materials to landscapes will be needed to track impacts "on the ground," such as carbon sequestration, adaptation and resilience, and outcomes for nature. Knowledge of place will be critical to reaching the Sustainable Development Goals.

### #5: Transparency of sourcing regions must improve.

Building on the above, line of sight to sourcing origins is an increasing priority for companies, and tools that help are advancing rapidly. Index results suggest that knowledge of country-of-origin hovers around 48% of materials sourced. Textile raw materials are being traced back to 49 companies, dominated by India, China, Turkey, the US, and Pakistan. As the sourcing of recycled materials increases, origins and circumstances of "waste origins" (secondary inputs) will become more important for integrity and monitoring impact.

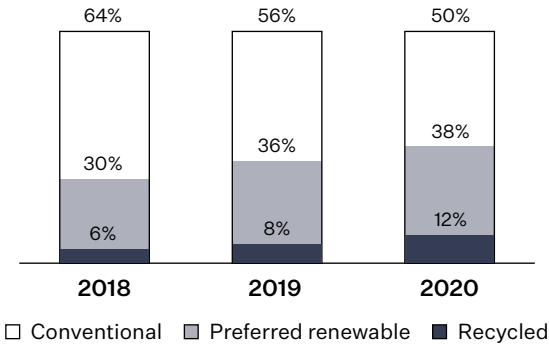
### #6: Early signs of brands decoupling value creation from new resource extraction.

The transition to a circular system has the potential to unlock huge economic, social, and environmental opportunities for brands willing to innovate and invest in new ways of doing business. Although too early to prove a trend, the number of items reported through alternative business models went from 5 million to almost 6 million between 2019 and 2020. Companies reporting data on re-commerce grew from six to 13 (out of 114), and there were 0.6 million more items in re-sale in 2020 over 2019. Evidence suggests that the pandemic contributed to this growth. While take-back volumes dropped 30%, possibly also due to COVID-19, other activities such as rental, repair, and upcycling all grew. It is too soon to tell if this data is representative of industry change or indeed if it results in a contribution to a more sustainable world.

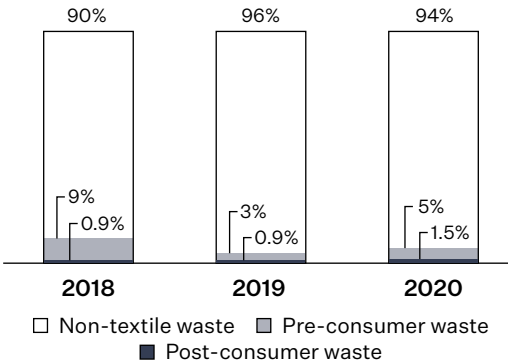


# Executive Summary

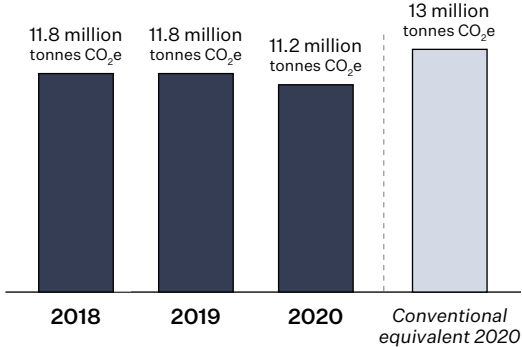
MCI participants' preferred materials hit the 50% tipping point.



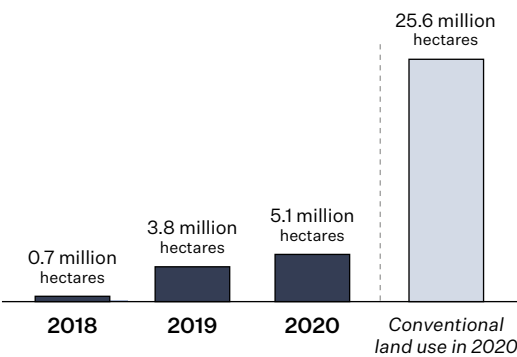
Growth in recycled materials dominated by non-textile inputs.



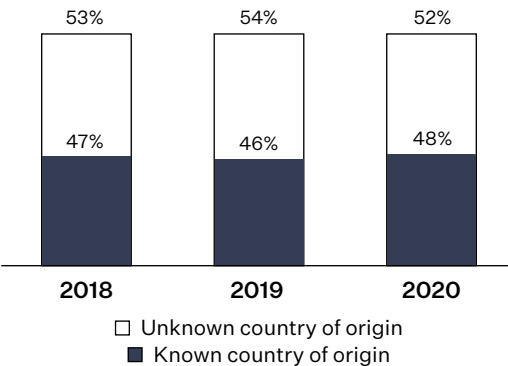
GHG decrease reflects slower growth as well as increase in recycled.



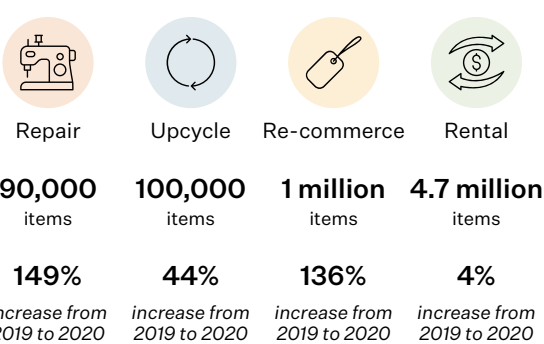
Land under improved practices increasing, but metrics need to link to geographical context.



Transparency of sourcing regions poised to increase.



Early signs of brands decoupling value creation from new resource extraction.



Notes: All attempts have been made to report robust information using best available methodologies. However, please note that uptake volumes are self-reported by participating companies. Modeling exercises are designed to show trends only. Modeling Tier 4 GHG emissions are global averages, based on SAC/Higg MSI Life Cycle Assessment midpoints and limited by the availability of data. Modeling of land area is based on the methodology outlined in the Materials Impact Dashboard Guide.

# Executive Summary

We spoke to 23 leaders, most of whom have been participating for years in our Index, about the future priorities they envisage for material sourcing, and about how the industry can get prepared. This is what they told us:

- **Preferred won't be optional.** All materials will need to deliver sustainability benefits, and no-one can afford to pick and choose.
- **There is an urgency to scale solutions.** With a lot of the tools, resources, and innovation needed already available, it's time to focus on action.
- **Thinking about dematerialization is crucial.** Companies will need to [dematerialize](#) and start decoupling value creation from the extraction of resources to create new products.
- **More regulation is needed.** Leaders are demanding more laws and controls to raise the minimum bar, leveling the playing field for brands and retailers that want to be better.
- **It's going to take persistence.** We will not be regenerative and circular overnight. Advice is to stay resolute, stay committed to good intentions and invest not for a year or two but until the job is done.
- **There's no more "middle" ground.** From company size, to supply chain links, to the gap between the "fastest of fast fashion" and companies with a higher calling, the middle-sized, middle links, and middle ground will disappear.

Together, we reflected on the global pandemic and resulting disruption, understanding its impact when it came to sourcing preferred materials:

- **Sourcing experiences were polarized.** Half of the companies experienced significant disruptions and cut back everywhere, while others doubled down on preferred materials or were resilient enough in their supply relationships to navigate the shocks.
- **There was a radical pivot to digital.** From buying and selling platforms to innovation in 3D printing and the use of traceability tech, almost everything that could, quickly went online.
- **Circularity plans were accelerated.** As many companies rose to the challenge of COVID-19 as struggled with it—often at the same time. Out of the hardship we may see truly inspired strategies that take advantage of this moment and further ignite the transition to a circular economy.

If we are to dramatically reduce the impacts of our textile world—that is, to make a material difference— we'll need to think big and to implement change at scale.

To do that, we need real-world data and insights that show how, and how well, the industry is transitioning to sustainable products and processes, from farm and field to factory and beyond.

Textile Exchange is providing that critical evidence-based data that points the way to the changes we all want to see in the world.

— Joel Makower, Co-Founder & Chairman, Greenbiz Group

# Executive Summary

## Moving forward

2021 results mark the end of a “three-year cycle”, which means the methodology has remained consistent year-on-year, allowing for a clear trend analysis of how companies are doing against the [benchmark framework](#).

Over the next eighteen months, the framework will be under revision, with the goal of increasing ambition, future-fitting, and enhancing the program’s value proposition. We will also be aligning progress tracking more closely with the Sustainable Development Goals and working to coordinate with other important disclosure programs.

We aim to build a stronger emphasis on tracking progress towards impacts aligned with Textile Exchange’s [Climate+ strategy](#), in line with our three core impact levers, materials, innovation, and degrowth.

We are living in a time when the majority are ready and willing to evolve but we need to work together to enact truly pervasive change.

Partnerships are needed to accelerate the uptake of preferred fibers and materials, for instance by enabling a shift from virgin fossil-fuel based to recycled synthetics, or by scaling textile-to-textile recycling systems. But also, to foster a nature-positive approach to the production of animal and plant-based fibers with a wider use of regenerative practices.

The global nature of our industry calls for alliances that will take us into a new era together and we invite other organizations to contribute to this work in years to come.

– Holly Syrett, Impact Programs & Sustainability Director,  
[Global Fashion Agenda](#)

Choosing Textile Exchange as its partner to measure our progress, The Fashion Pact sees this as an exciting opportunity to further industry alignment and build upon existing guidance to avoid the duplication of efforts, leveraging expertise from leading industry technical experts in order to inform the most impactful and ambitious course for collective action.

– Eva Von Alvensleben, Executive Director, The Fashion Pact

As part of the Apparel Alliance, the Sustainable Apparel Coalition (SAC) and Textile Exchange are committed to working together to align solutions and reduce any duplication in the tools to reduce reporting fatigue. What we hope to achieve is an integrated ecosystem of measurement, benchmarking and performance improvement frameworks that enables the industry to accelerate and scale environmental impact reduction.

Over the next six months, the SAC and Textile Exchange will be exploring how this integration will work in practice, engaging with the community to make sure that the solution is fit for purpose and that data protection is maintained.

– Jeremy Lardeau, Vice President, Higg Index, Sustainable Apparel Coalition

# Frequently Asked Questions

## Five frequently asked questions about this report

### How many companies take part in the Material Change Index?

In 2021, there were 292 [participating companies](#) (this includes subsidiaries covered by holding companies). Every year participant numbers grow and change. It is important to mention that the “participant count” is lower since this refers to the number of survey submissions (e.g., a holding company may submit a survey on behalf of multiple brands, but it counts as one submission). Further, a company may submit a fully-completed survey (the MCI), a modular response, or a progress tracker (volumetric data only), which means the total count for each section of the survey changes depending on company responses.

### How representative of the apparel and textile industry are the results?

This analysis is based on the results of the 292 companies (explained above) that voluntarily participated in the benchmark in 2021. Results do not represent the entire industry. The estimated combined turnover of the 292 participants was US\$ 680 billion. In comparison, this is approximately 30% of the 1.5 trillion-dollar global fashion industry.

### What year do the insights and data align with?

The date of the report aligns with the year of the Material Change Index survey (2021). The data, however, reflects the previous 12-month “reporting period” of the participants. In most cases this is calendar year 2020, and you will see that the graphs and our analysis point to this date. Note, that some companies report financial or buying

year. Ideally, all companies would report in calendar year for consistency, but as long as the data represents a full 12-months cycle, Textile Exchange prefers participants to use their regular corporate reporting year rather than creating a separate data set for the MCI.

### How accurate are the results?

Textile Exchange puts in place data strengthening requirements at every step of the benchmark cycle, starting with clear guidance and support. The survey requests evidence to back up answers and a sign-off by senior management. We conduct a thorough review of all survey submissions to a formal methodology and share review information back with the company in a documented format allowing the participant to respond before a change is made. Each year, our systems and process are reviewed by Elevate, a third party, and we are issued with an [assurance statement](#) along with improvement suggestions. Benchmarking is about continuous improvement and each year we aim to see improvements by companies and ourselves alike. See our disclaimer on page 5.

### What is the difference between this report and Textile Exchange’s Preferred Fiber & Materials Market Report?

The [PFMR](#) is an annual report on the global production of materials (the supply-side), while the Material Change Insights covers the progress made by a sub-set of the brand and retailers (demand-side) reporting into the benchmark. Both reports reflect deep levels of important and unique data collection and analysis at Tier 4 of the supply chain to support the textile industry in its preferred materials journey and to make a positive contribution to people, climate, and nature.

## Explore our suite of results

For the full experience of the 2021 MCI results, this report can be read alongside the Material Change Leaderboard, Materials Dashboard, and Sector Scorecard.

All four products are designed to take the user through the journey of material change—from digging into each company’s performance (Leaderboard) to exploring aggregate level scoring (Scorecard) and modeled impacts (Dashboard).

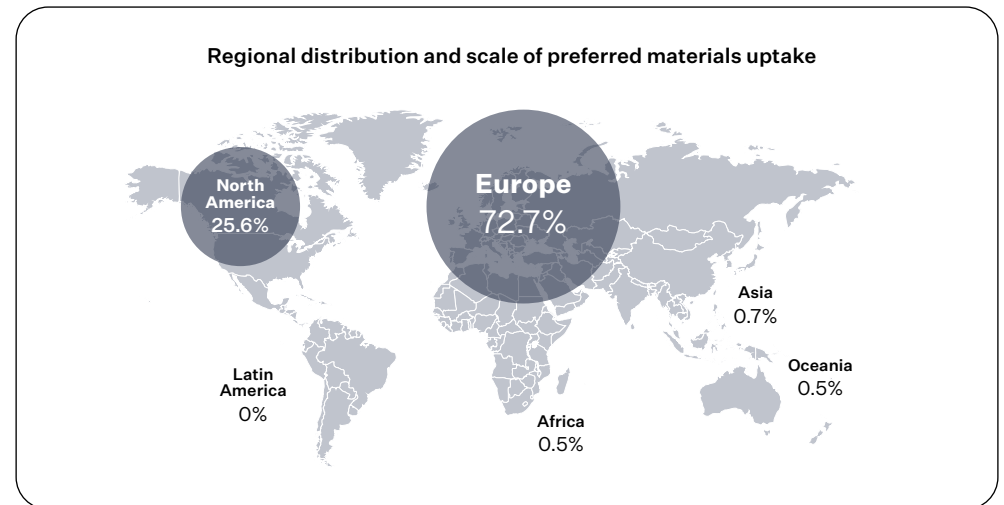
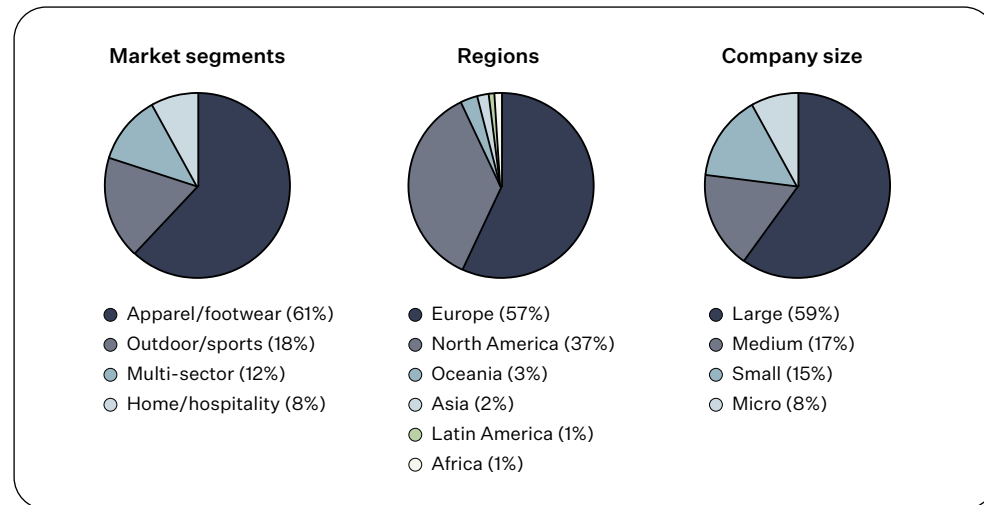
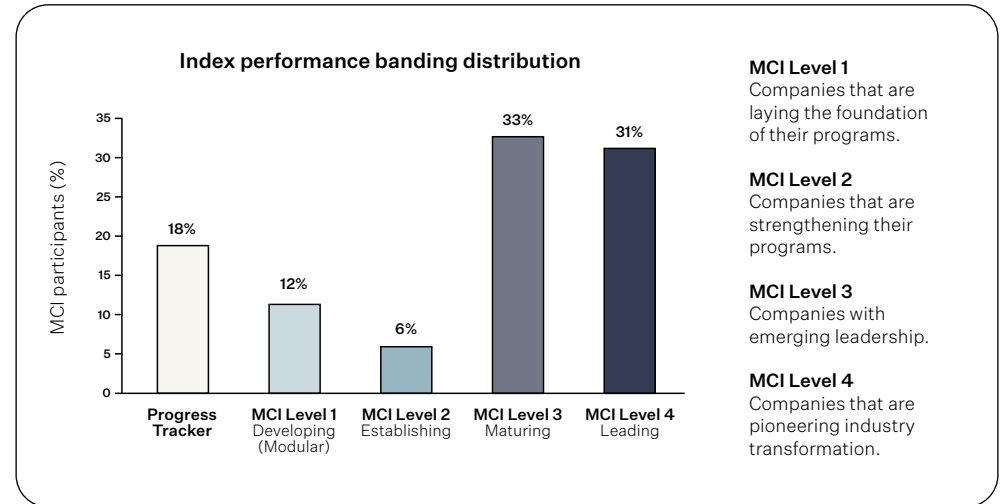
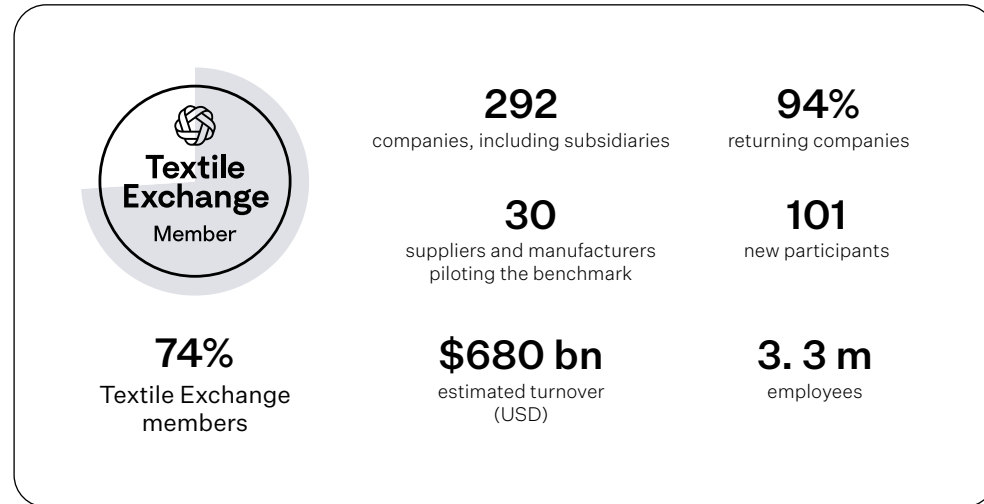
- [The Material Change Leaderboard](#) is a public resource that celebrates all companies that took part in the benchmark, delivering transparency by sharing participants’ performance banding with the world.
- Our [Sector Scorecard](#) is designed to help us pin down where progress is happening through a detailed sector-level and sub-sector overview. We provide the numbers for apparel and footwear, outdoor and sport, home and hospitality, as well as a multi-sector benchmark.
- The [Impacts Dashboard](#) provides an opportunity for interested stakeholders to observe the progress made by the entire group of benchmarking companies across different impact areas, from preferred materials uptake to climate action.



# State of the Sector

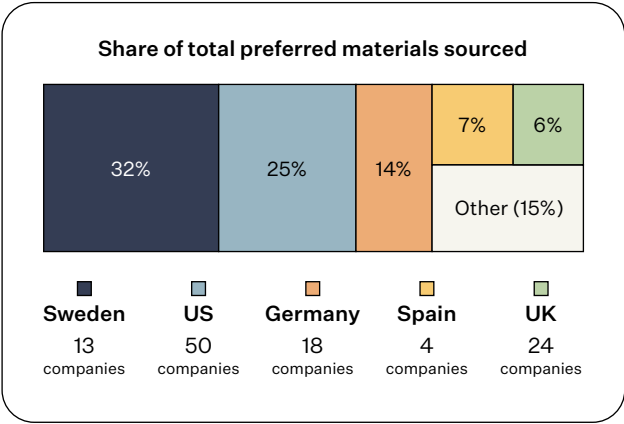
# Participant Profile

A snapshot of the benchmarking community in 2021.



# Participant Profile

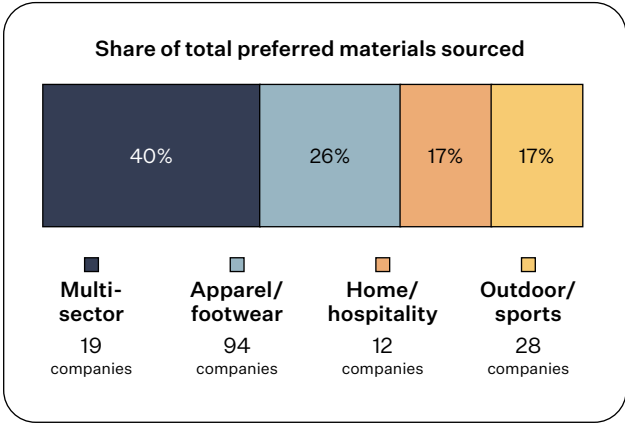
## Global distribution



**Sweden, the US, and Germany dominate participant numbers and uptake of preferred materials.**

Preferred made up 80% of the 13 Swedish companies' total material use. Sweden represented 20% of the MCI overall materials use and 32% of the preferred. By comparison, preferred made up 32% of the 50 US-based companies' total material use. The US represented 32% of the MCI overall material use and 25% of the preferred. Third, by uptake volume, went to the 18 German companies. Preferred made up 54% of the 18 German companies' total material use. Germany represented 13% of the MCI overall materials use and 14% of the preferred.

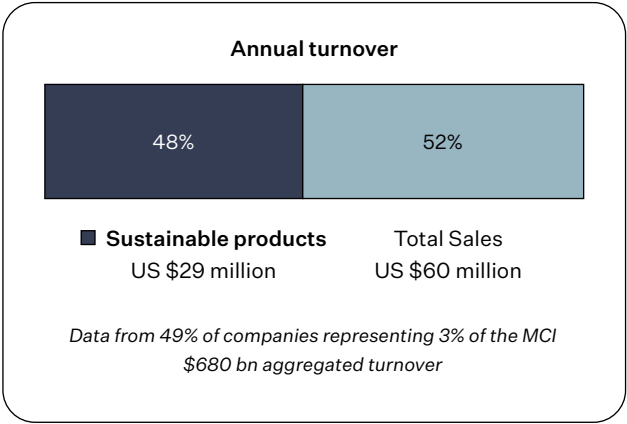
## Sub-sector distribution



**Most preferred materials are sourced by multi-sector retailers.**

Most preferred materials (40%) were consumed by the "multi-sector" sub-sector - selling both home textiles and apparel. Alongside volumes, the Home/Hospitality sub-sector is leading on converting to preferred and closing the gap on conventional.

## Turnover from sustainable products



**Half of participants reported sales from more sustainable product lines, and data shows promise.**

75 companies (49% of participants) were able to report turnover from textile product sales and the share linked to their "sustainable" textile product lines. From the data provided, 48% of reporting companies' turnover in 2020 came from sales of their designated sustainable products. Note, companies used their own definitions of a sustainable product. Most companies referred to this as the use of more sustainable materials ranging from certified materials only or partially, others included safer chemistry and fair production.

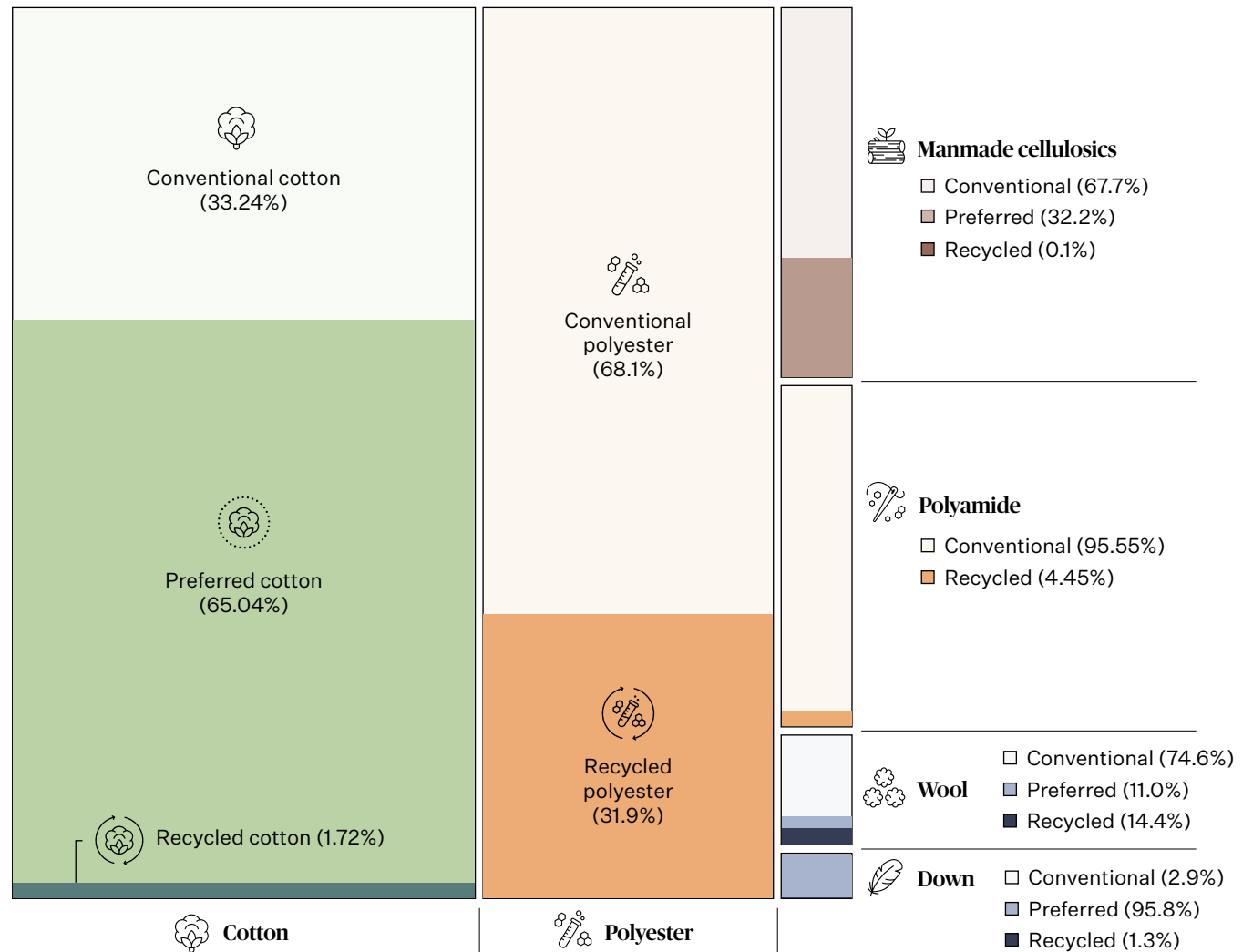
# Progress to Preferred

## Material categories and share of preferred

**Cotton dominates the preferred materials portfolio and recycled polyester is increasing.**

Volumes are proportioned within each material category, including cotton, polyester, manmade cellulosics (viscose, modal, lyocell), polyamide, wool, and down. Excluded are leather and “other” materials reported such as cashmere, natural rubber, acrylic, etc. The shaded areas show the comparative use of preferred, renewable, recycled, and conventional virgin materials.

Note: The total volume of materials sourced by Index participants in 2020 was approximately 4.7 million tonnes, 2.4 million preferred and 2.3 million conventional. For actual volumes of each material (by weight) please see details provided in each of the material portfolio sections of this report or the [Materials Impact Dashboard](#).







# Leaders' Circle

## Overall leaders

47 companies reached a Level 4 (Leading) in the MCI this year, indicating exceptional progress across the board from embedding strategy, expansion and growth in use of preferred materials, alignment with the Global Goals, and actioning circularity agendas.

adidas AG	ECOfashion Corp	Kathmandu Limited	International BV	PVH Corp.
ARMEDANGELS	EILEEN FISHER, INC.	Kering	Naturepedic Organic Mattresses & Bedding	Reformation
BESTSELLER A/S	Gap Inc.	Knickey	NIKE, Inc.	Smartwool (VF)
Boll & Branch	H&M Group	Kuyichi Pure Goods	Norrøna Sport	Stanley/Stella S.A.
Burberry	icebreaker (VF)	Levi Strauss & Co.	Nudie Jeans	Stella McCartney
C&A	IKEA of Sweden AB	Lindex	Outerknown	Tchibo GmbH
Coop Group	Inditex	Loomstate, LLC	Patagonia	Timberland (VF)
Coyuchi, Inc.	JanSport (VF)	Mantis World Limited	prAna	VARNER
Deckers Brands	KALANI-home	Marks and Spencer	PUMA SE	Veja Fair Trade SARL
Dedicated Sweden AB	KappAhl Sverige AB	MUD Jeans		

## SDG leaders

These 17 companies reached a Level 4 (Leading) in the SDG Index, aligning their work in preferred materials with the Sustainable Development Goals

ASICS	Dickies (VF)	Inditex	International BV	Timberland (VF)
Burberry	H&M Group	Kering	PVH Corp.	Vans (VF)
C&A	icebreaker (VF)	Levi Strauss & Co.	Smartwool (VF)	
Deckers Brands	IKEA of Sweden AB	MUD Jeans	Tchibo GmbH	

We are proud of the confirmation of our leadership status in the Material Change Index and see it as a recognition for our sustainability program.

Here at adidas, sustainability is a core component of our strategy and firmly embedded in all aspects of our business. To contribute to a more sustainable future, our goal is for nine out of ten articles to be sustainable by 2025. In terms of environmentally preferred materials, 90% of the polyester we use is already recycled today and we will fully replace all virgin polyester by 2024.

Innovation plays a key role for us: last year we rolled out our first circular product concept “made-to-be-remade” commercially. This year we are looking forward to launching products “made with nature” for our consumers, using materials like wood-based fibers.

**Katja Schreiber,**  
Senior Vice President Sustainability,  
adidas

Note: The MCI Leaderboard is a voluntary public listing. This year, four companies elected not to be listed. All lists are alphabetical and do not follow any ranking. Some companies listed are holding companies and will have reported on behalf of their subsidiary brands. Please see the [2021 Participants](#) list for full details of company reporting scope.

# Leaders' Circle

## Circularity leaders

These 16 companies reached a Level 4 (Leading) in circularity.

C&A	Kathmandu Limited	Mara Hoffman Inc	Outerknown	Smartwool (VF)
EILEEN FISHER, INC.	Knickey	MUD Jeans	Patagonia	
H&M Group	Levi Strauss & Co.	International BV	prAna	
Inditex	Loomstate, LLC	Nudie Jeans	Reformation	

## Big movers

These 10 companies made the greatest improvement in the MCI from 2020 to 2021.

Brooks Running	Dickies (VF)	Mulberry	The Cotton Group	Williams-Sonoma, Inc.
C&J Clark Limited	Joules	ORSAY GmbH	VARNER	Zalando

## New entries

These 30 companies completed the MCI (full survey) for the first time.

ASICS	Gymshark	Juliette Hogan	Mini Rodini	Ted Baker
Desigual	Hanna Andersson	KIABI	Pentland Brands	Timberland (VF)
DK Company	Helly Hansen AS	KID ASA	s.Oliver Group	Totême
Everlane	icebreaker (VF)	Maaji	Scotch & Soda	Vans (VF)
Everywhere Apparel	JanSport (VF)	Madewell	Sleep on Latex	VOICE
GANT	J.Crew	MANGO	Tact & Stone	Yumeko

The fiber and materials we use in our commercial endeavors reflects the values of our company, weaving us into the quilt of global health, environment, and a flourishing economy. For Loomstate, participating in the Textile Exchange's benchmarking community is essential, our commitment is the alchemy of higher quality products.

**Scott Mackinlay Hahn,**  
Founder of Loomstate

VF Corporation and our family of brands are working to drive toward a more sustainable future, for the betterment of people and planet. Since a vast majority of our greenhouse gas emissions come from raw material sourcing, processing, and production, working throughout our supply chain is an opportunity for us to make a meaningful impact.

To put this into action, by 2030, VF's Sustainable Materials Vision commits to sourcing our top nine materials from sustainably-sourced, recycled, or regenerative materials. Textile Exchange's Material Change Index serves as an authoritative yardstick to measure VF's progress towards this goal. Using this tool, we are able to identify areas of progress and where innovative methods can be leveraged to drive impact.

**Jeannie Renne-Malone,**  
Vice President, Global Sustainability,  
VF Corporation

# Leaders' Circle

## MCI Suppliers Pilot

These 30 companies are pioneers by piloting the MCI for suppliers and manufacturers.

Alpine Group - Paradise Textiles	Sapphire Textile Mills Limited
Armstrong Mills	SAPPI
asahiKASEI Bemberg	Sateri
Bergman Rivera	Södra
Birla Cellulose, India	SULOCHANA MILLS, INDIA
Canvaloop Fibre Private Limited	Sustainable Down Source
Crestex	TAL Apparel Ltd.
Eastman Naia™	The Schneider Group
Elevate Textiles	Unifi Manufacturing Inc.
Ereks-Blue Matters	UPW
Interloop Limited	WASTE2WEAR
ITOCHU Corporation	WestPoint Home LLC
Jiangsu Yongyin	World Textile Sourcing (WTS)
Lenzing Group	YKK Corporation
Oripex Textile	ZXY International

Enhancing our engagement with the Sustainable Development Goals is one of our core policies at ITOCHU Corporation. In the textile industry, reducing environmental burden and maintaining sustainable growth are gaining global attention.

As ITOCHU Textile Company, we launched the Pre Organic Cotton program back in 2008 to shine a light on the in-conversion period in organic farming process. We continue to be proactively engaged in projects that contribute to SDG outcomes, including developing environmentally friendly fibers such as RENU—chemically recycled polyester using textile waste as its feedstock and Kuura—sustainable cellulose fiber.

As part of our commitment to more sustainable textiles, we have joined Textile Exchange’s corporate fiber and materials benchmarking pilot for suppliers and have become signatories to both the sustainable cotton and the recycled polyester challenge. ITOCHU Corporation embraces the spirit of “Sampo-yoshi” in all our activities and initiatives.

By striving to fulfill our missions, we aim to achieve sustainable growth in the textile and fashion industries.

**Sachiro Shimoda,**  
Manager, Textile Material Section,  
ITOCHU Corporation

It is an honor to be recognized by Textile Exchange as leaders in sustainability. We do not use any virgin polyester in our collections. Our innovative collections of high-level textile products are made from various plastics that we recycle including plastic bottles (RPET) and polypropylene (RPP) from old appliances such as refrigerators, washing machines and air conditioners.

We bring transparency to the sometimes-opaque recycling industry: providing 100% certainty that the goods are really made of recycled feedstock and to what percentage. We do this by creating a unique blockchain and testing method (RA-3) to prove the validity of the feedstock and the whole supply chain. We recently introduced our new carbon offset program to pave our way to become fully carbon neutral by 2025, through an extensive tree planting project in Brazil.

Since 2007 we have been front runners in the recycling industry, constantly improving and innovating, and are proud to introduce two new fabrics to our collection in July 2022: imitation leather made from 96% recycled plastic bottles and recycled nylon made from end-of-life fishnets. We remain committed to creating unique new recycled materials every year in order to reduce plastic pollution and plastic waste.

**Monique Maissan,**  
CEO & Founder of Waste2Wear



# About the Results

This part of the report takes a dive into the Material Change Index (MCI) 2021 results covering the previous 12 months, either calendar or financial year.

This year, alongside the usual analysis, we have, in places, included three-year trends to provide a sense of where progress has been made and where there is room for improvement.

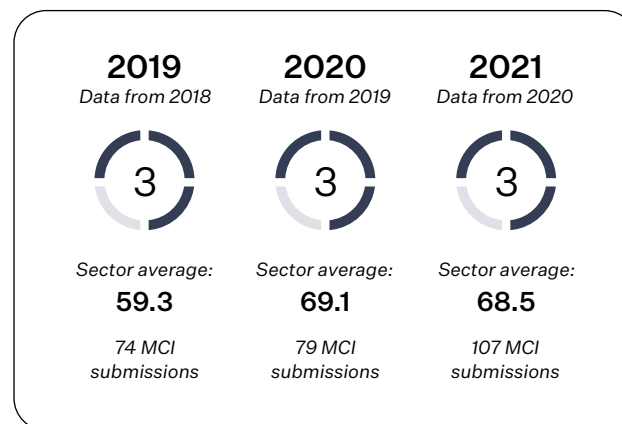
Although the benchmark program has been running for seven years (including the pilot year), we have only been publishing the [Material Change Index](#) for the last three.

As you read the results, keep in mind that the cohort of companies changes annually. There are more each year and occasionally a company may take a break or leave. As new companies join, this affects the comparability from year to year. The way we explain this is to think about the Index average as being a yardstick, but the Index itself is in constant flux—as more companies join, our results become more reflective of the industry. If we use the [Process of Change](#) model, the Index reflects the innovators, early adopters, and possibly the early majority (but not yet the late majority or laggards/resistors).

Also note also that the “Module Submissions” may cover one company or multiple numbers of its subsidiaries.

With the above in mind, our results show that the Index average has moved from 59 to 68.5 out of a possible 100 points, while participation in the MCI (full survey) has grown from 74 to 107 over three years.

## Participant profile



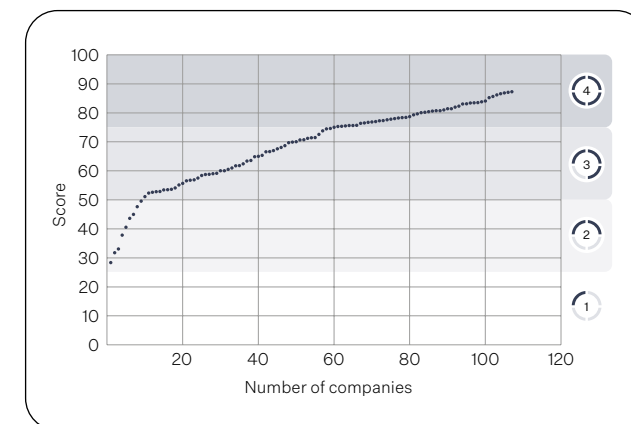
### MCI constant at Level 3 (Maturing)

To qualify for the MCI, companies must complete business integration modules on strategy and circularity, and modules for their priority materials (from the portfolio of options). See our [methodology](#) for further details of the MCI scoring.

Full MCI participant numbers have now reached 107, a growth of 35% over the year before. The remaining participants completed individual modules or the progress tracker.

The Index average has remained relatively stable at Level 3 (Maturing), despite participant growth. The chart on the right shows the distribution of scores for the 107 MCI entries in 2021.

## Distribution of MCI scores



1 MCI Level 1  
Score: 0–25

2 MCI Level 2  
Score: 26–50

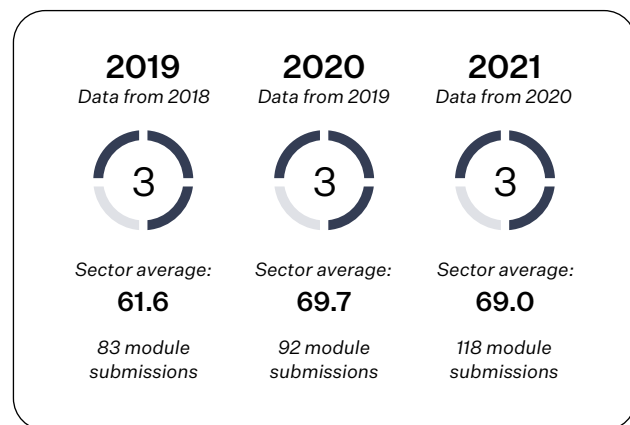
3 MCI Level 3  
Score: 51–75

4 MCI Level 4  
Score: 76–100

# Business Integration



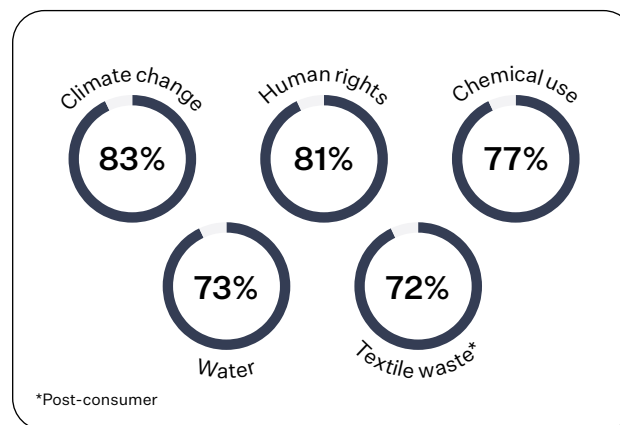
## Participant profile



**Materials Strategy performance remains solidly in the Level 3 Maturing banding.**

Strategic planning is important to provide direction and support decision making. Strategies include longer-term goals, responsibilities, timelines, and resource allocation. A materials strategy provides a framework to identify risks to supply, focus investment, and drive sustainability performance. Engaging with a diverse range of stakeholders ensures risks and opportunities are not overlooked. The score for Strategy is derived from a company's response to questions on Materials Strategy, Leadership, Internal Engagement, Materiality, Customer Engagement, and Reporting.

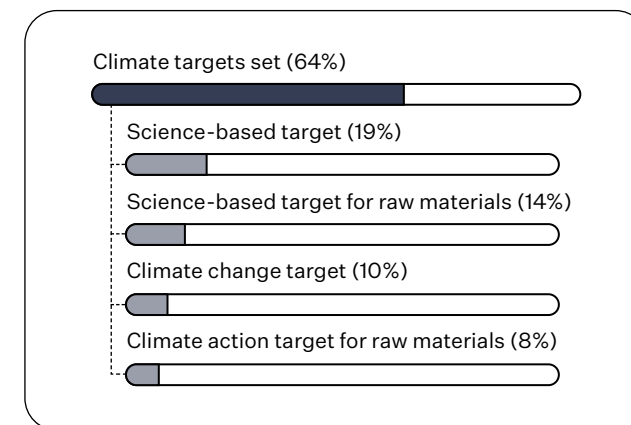
## Top ranked business risks



**Climate Change and Human Rights top business risks.**

Climate Change is positioned at the top of the business risk agenda for materials (83%), followed closely by Human Rights (81%). The MCI has seen both risk topics move up the ranking, particularly Human Rights that went from 47% in 2019 to 74% in 2020 and now at 81% of participants. This rise in frequency and closing in gap between Climate and Human Rights is likely to reflect the heightened awareness of climate justice and associated concerns such as intergenerational and gender equity, and transition pathways that put people at the center of responding to the change agenda.

## Climate targets



**36% of companies yet to set climate targets.**

While climate is the top ranked business risk when it comes to raw materials, there are still companies (36%) yet to commit to climate action through target-setting. From the 63% that have set targets, half have set science-based targets, and almost a quarter have incorporated raw materials. The approaches for Scope 3 measurement and target setting (covering indirect emissions through the company's supply chain), and in particular, Tier 4 (raw materials) are evolving rapidly, like the GHG Protocol Land Sector and Removals Guidance.

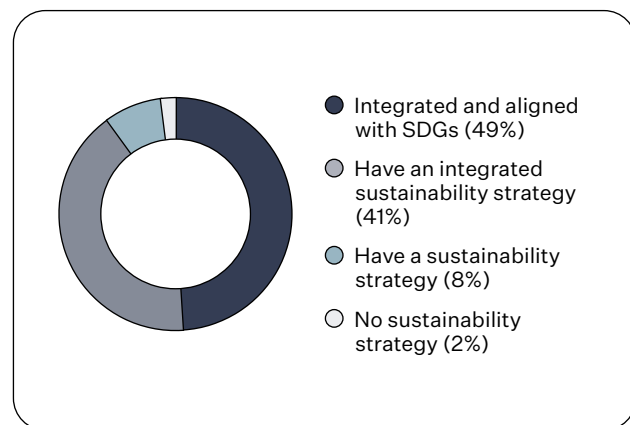
We are committed to setting a science-based target, a clearly defined pathway for companies to reduce greenhouse gas emissions, helping to prevent the worst impacts of climate change.



# Materials Strategy



## Materials strategy



**The Sustainable Development Goals (SDGs) are seen as important for strategic alignment by 49% of respondents.**

Nearly all respondents (98%) have a materials strategy, and progress has been made integrating this into the overall corporate strategy. Alignment with the SDGs has reached almost 50%, increasing each year from 33% in 2019 and 45% in 2020.

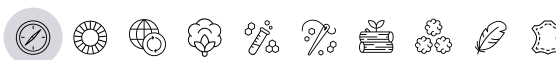
Our strategy is evolving, and this benchmark will assist us to create future targets.

## Global commitments



**Climate and responsible business top the commitments chart.**

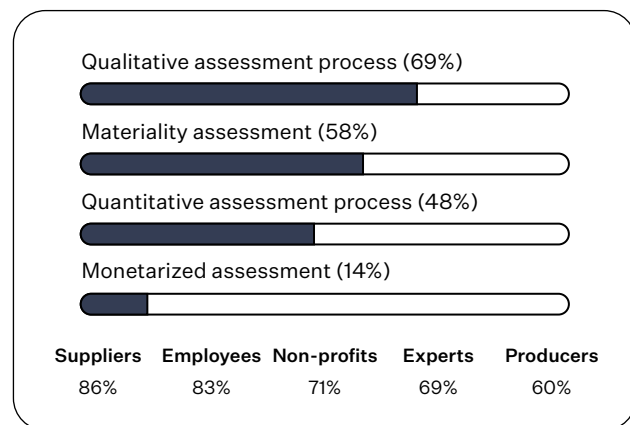
80% of respondents are a signatory to one or more important global sustainability commitments. Companies are joining sector-specific as well as broader or cross-sectoral networks in response to the urgency of action. Climate commitments feature strongly, as do commitments to responsible business, human rights, and circularity. Awareness of the inter-connectivity of issues is growing, and holistic frameworks such as the [Science Based Targets Network](#) and partnerships such as the Global Environment Facility (GEF)-funded [Transforming the Fashion Sector](#) are helping consolidate efforts.







## Materiality

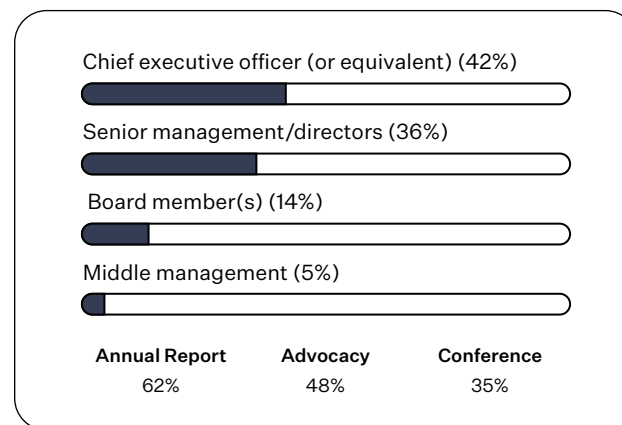


### Materiality assessments are well established.

MCI companies are familiar with materiality assessments with 94% having carried out a risk assessment using a qualitative or quantitative assessment process. The majority (89%) engage with stakeholders as part of that assessment. We have noticed that over the years key stakeholders tend to remain constant, with suppliers, employees and NGOs being the most consulted groups.

We created a preferred materials table where product developers can weigh cost alongside environmental attributes for material and product advanced development and commercialization.

## Leadership

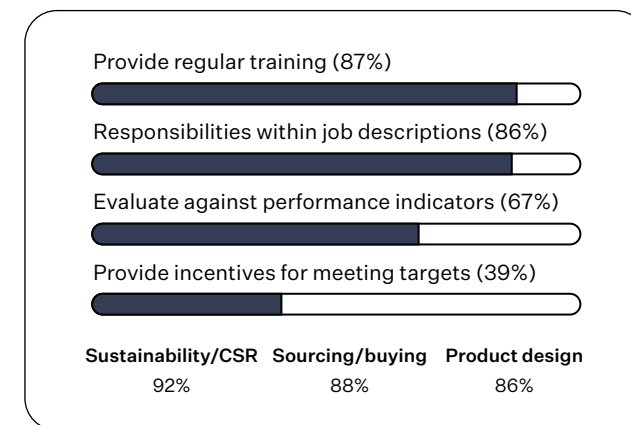


### Leadership holds accountability for materials sustainability.

The CEO (42%) and senior management (36%) are most likely to hold accountability for a company's materials strategy. More companies are now escalating accountability up to the board (14% in 2020 compared to 9% in 2019). Very few companies reported to have not formalized accountability. When it comes to a CEO's leadership on materials in the public domain, the majority are making statements in their annual reports (62%).

Our Director of Sustainability holds strategy delivery to the C-Suite. The C-Suite is then accountable for its ultimate execution via the company goals.

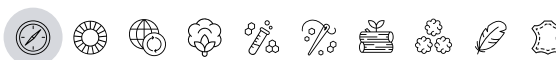
## Internal engagement



### Materials sustainability is mainstreamed through most roles in the company.

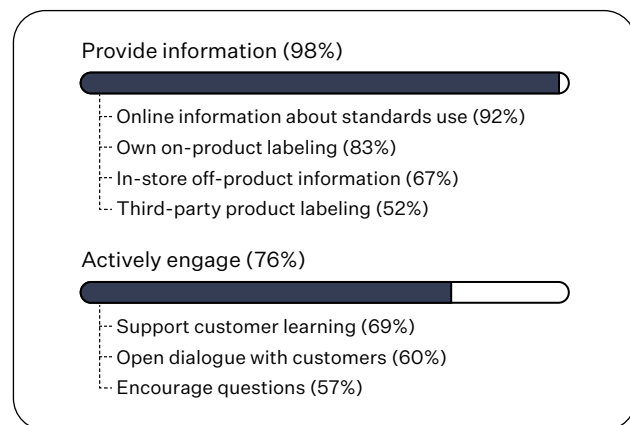
Sustainability teams are the most likely to benefit from capacity building (92%), and training continues to be the most common capacity builder. Between 2018 and 2019, there was a jump in the numbers of companies incorporating sustainability into job descriptions, performance evaluation, and incentives schemes. This increase in capacity building has been seen across all departments from sourcing to product design. However, sales staff, CEO's and Board members are the least likely to experience capacity building opportunities or expectations (59%, 56%, 42% respectively).

Our sustainability work and vision spans the entire value chain. The change-making program makes sure sustainability is integrated into everything we do, and all our colleagues are an important part of that.





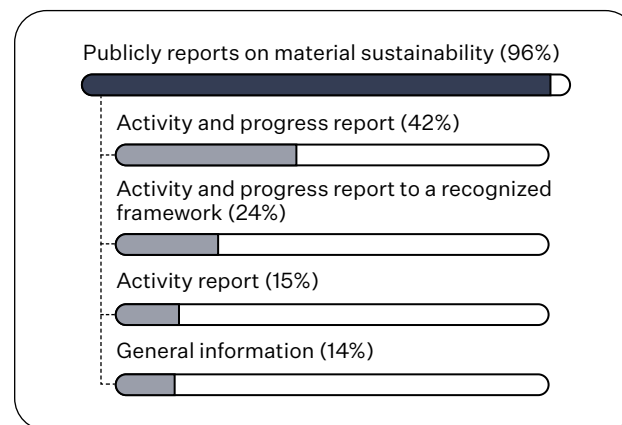
## Customer engagement



### Brands are active in communicating to customers.

Companies are routinely reporting their use of standards and certifications through sustainability reports. And when it comes to direct marketing, companies are more likely to use their own labels (83%) rather than third-party logos and labels. Awareness-raising is popular (69%) when tagged to high-profile dates such as World Environment Day or Earth Day. Encouragingly, companies are in dialogue with their customers, leveraging social media and other interactive channels.

## Public reporting



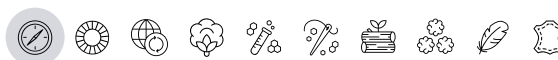
### Growing expectations for disclosure and transparency.

Communication is key, but only if it is credible. Almost all (96%) of participants are publicly reporting at least their general activities on materials sustainability, with 66% reporting progress against set indicators, and 24% within a recognized framework. Data assurance is split between internal reviews (42%) and external assurance (36%) with only 7% having no assurance program in place. There is work underway within the reporting framework community to align on terminology, metrics and indicators. Recently, the Sustainability Accounting Standards Board (SASB), now part of the Value Reporting Foundation, revised the [Raw Material Sourcing](#) part of their Apparel, Accessories & Footwear Standard and have adopted Textile Exchange's terminology.

The purpose of SASB Standards is to connect businesses and investors on the financial impacts of sustainability. More specifically, SASB Standards identify the subset of environmental, social, and governance issues most relevant to financial performance in each of 77 industries. We believe in the need for a comprehensive global baseline of sustainability disclosure for investors, and it's critical that this global baseline be built upon existing standards and frameworks. This global baseline can help provide comparable, consistent, and reliable sustainability information to the global capital markets.

In May 2022, the SASB Standards Board published updates to the Apparel, Accessories & Footwear Standard following a rigorous process involving industry consultation, a public comment period, and approval by the SASB Standards Board. The purpose of the update was to revise and clarify two metrics and technical protocols related to the Raw Materials Sourcing disclosure topic to improve global applicability. The metrics now use Textile Exchange's definition of priority raw materials, which improves the global applicability of the guidance and better accounts for materials used in small quantities that may represent critical sourcing risks or opportunities. These updates demonstrate a clear example where technical expertise and market input from stakeholders, such as Textile Exchange, was fundamental to improving the standards.

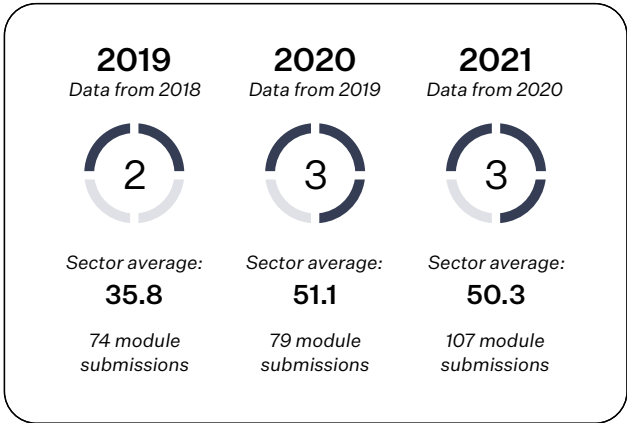
**Laura Nelson,**  
Associate Director - Market Engagement,  
Value Reporting Foundation



# Sustainable Development Goals



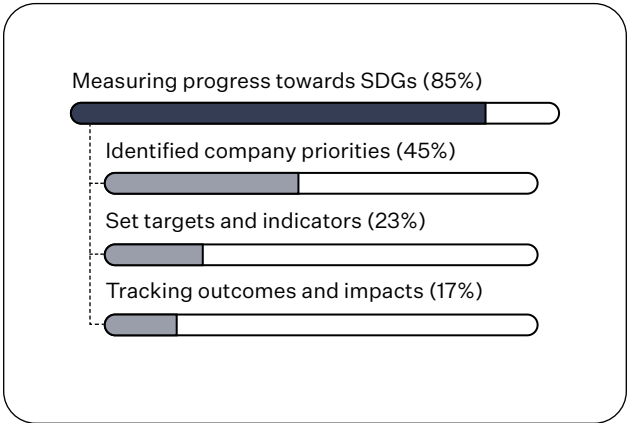
## Participant profile



### Performance in the SDGs shows no change.

Anchoring strategy in the Sustainable Development Goals (SDGs) is good for business and draws companies into collective action for global progress. The way we produce, (re)use, and dispose of or recycle our materials has an impact on nearly every one of the SDGs. The textile industry has a powerful opportunity to shift the needle in both producer and consumer contexts.

## Measuring progress



### SDG alignment is a good start but more needs to be done to confidently measure outcomes.

As we reported earlier, 49% of companies have aligned their materials strategy with the SDGs and most have identified their priority SDG(s). However, significantly less have set measurable targets (23% of companies with SDG alignment) or are tracking progress (17%). The next push would be for more companies to develop a measuring system and commit to annual monitoring of progress for their SDG strategies to be meaningful.

We aim to increase our sourcing share for more sustainable materials as part of our 2023 target to generate 25% of our Gross Merchandise Volume with more sustainable products. This has links to a number of our priority SDGs including climate goals.

The private sector has a crucial role to play in advancing the SDGs, and the World Benchmarking Alliance (WBA), along with its 300+ global and multi-stakeholder Allies are working together to build a movement to measure business impact. Benchmarks and methodologies provide an essential tool for measuring corporate performance on the SDGs, and act as a blueprint for business and other stakeholders to be a force for good and act on the data.

The WBA is proud to have Textile Exchange as an Ally, who are working in the textile and apparel industry and bringing their members on this transformational journey through the Material Change Index. By benchmarking the industry and providing tools for improvement, they are creating a strategic direction to enable companies to move towards a sustainable future for everyone.

**Pauliina Murphy,**  
Engagement Director,  
World Benchmarking Alliance



# Sustainable Development Goals

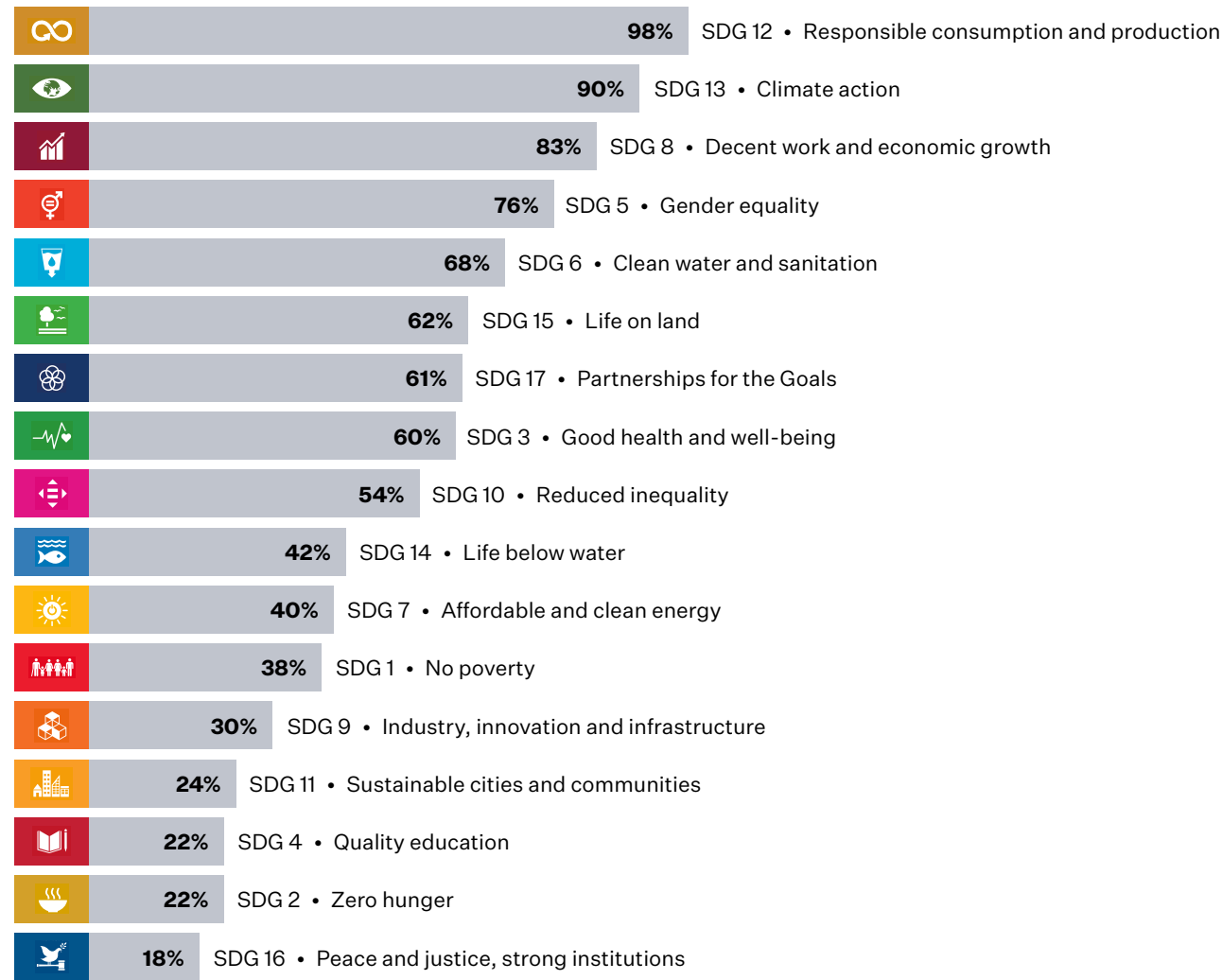


## SDG prioritization

**Prioritization brings focus but all SDGs are connected.**

85% of participating companies have identified priorities with respect to one or more of the SDGs. While all 17 of the Goals are interconnected, SDG 12 (Responsible Consumption and Production) and SDG 13 (Climate Action) remain top priorities for participants.

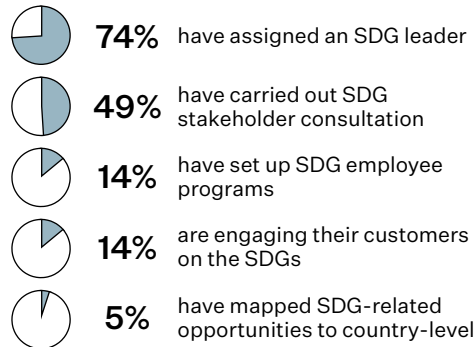
We have prioritized SDG 12 and we are committed to achieving the sustainable management and efficient use of natural resources, adopting sustainable practices, and integrating sustainability information into our (annual) reporting cycle.



# Sustainable Development Goals



## SDG engagement

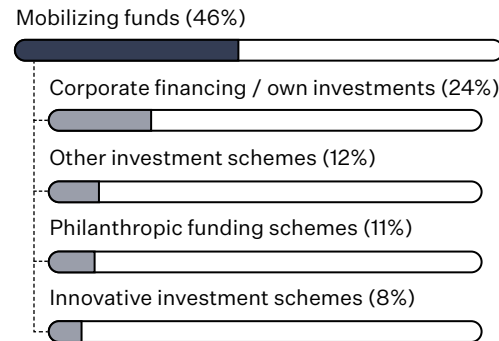


### Untapped potential to personalize the SDGs.

The common language and branding of the SDGs, connects us all to this “decisive decade of action”. However, the SDG movement is not being leveraged to its full potential by apparel and textile brands and retailers, as our SDG engagement data illustrates. While many companies have elevated the SDGs to senior level accountability within their company, there is more to do on mapping the opportunities and digging deeper into broader stakeholder interests. Untapped potential lies in engaging with colleagues through employee programs and engaging customers in the SDG conversation through dialogues and initiatives like the [“Good Life Goals”](#).

We have continuous dialogues with suppliers where we talk about the SDGs as an important part of our sustainability commitment.

## Mobilizing SDG funds

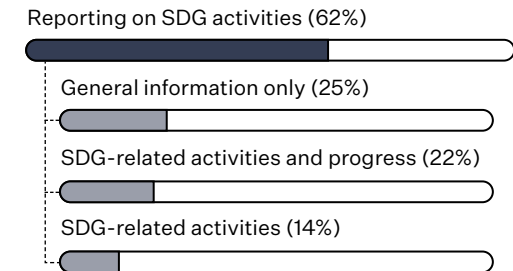


### Connecting funds to the SDGs is under utilized.

Linking investments to the SDGs has not eventuated. Only a few companies could make a connection between their investments and the SDGs, and those that can, are doing so within their own funding initiatives, and not through SDG aligned funding or investment opportunities, such as public private partnerships. Once again, it begs the question about how to more deeply leverage the opportunities associated with the SDGs and the urgency to close the funding gap.

In 2020, we invest in innovators that can have a direct impact on how we support the SDGs.

## SDG reporting



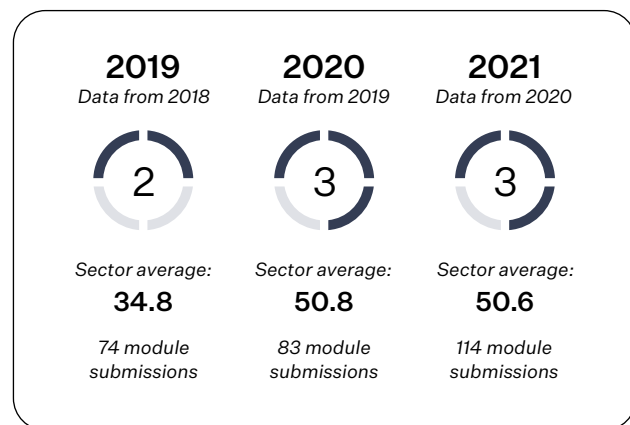
### Reporting on SDGs reflects overall slow progress.

Where companies have placed a stake in the ground on the SDGs, their accountability and reporting is maturing, and these companies are regularly reporting on SDG activities and progress. For others, it is still early days, and deepening the connection to their business is needed before more meaningful, quantitative, reporting can be achieved.

We believe that accountability and transparency are fundamental to making progress on the 2030 Agenda. Therefore, we have included the main indicators of our contribution to the SDGs in our Annual Report. We joined the Business Leadership Forum, promoted by GRI, in 2021 to continue sharing experiences in SDG reporting.



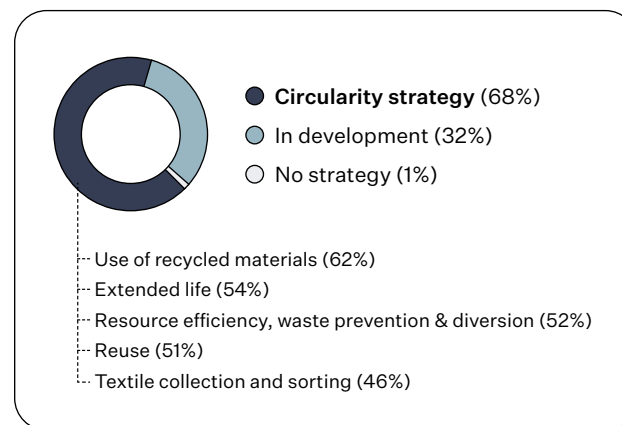
## Participant profile



### Circularity remains just over the line in the Level 3 Maturing performance banding.

The way textile products are made, used, and disposed of leads to significant volumes of waste and pollution. Circularity must be part of a materials strategy, from the selection of raw materials, to product design, to end-of-life. Keeping products in use longer through reuse and repair will require a shift in business models and societal values. The textile industry must transition to a circular economy that benefits society, the environment, and ultimately business, through the decoupling of economic activity from the consumption of finite resources and designing out waste.

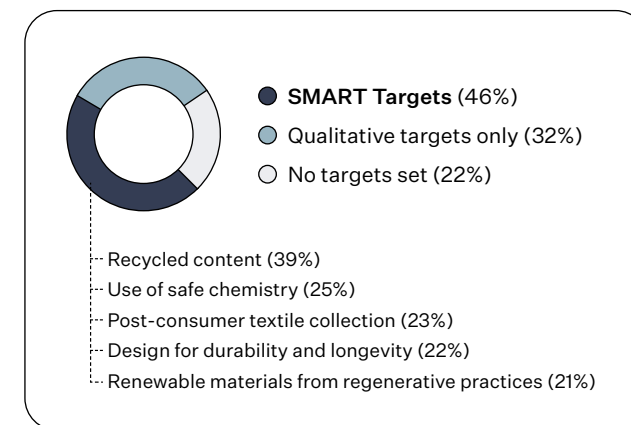
## Strategy



### Companies are deepening their circularity strategies.

Most participants (99%) have a circularity strategy in place or under development and are taking steps to extend the life of their products and materials. 46% have published their commitment to circularity and 31% have shared their strategy publicly. The low-hanging fruit for circularity is the use of recycled content (62%), and this is often the entry point into deeper circularity work. Almost all respondents have strategic priorities for reuse, extending product first-life, and resource efficiency.

## Targets



### Companies are setting targets. Now, we need alignment.

46% of companies have set one or more measurable target for circularity, with use of recycled content the most common. Targets are being set for durability, design, use of safe chemistry, and collection of post-consumer textiles. However, targets are wide and varied, and more work needs to be done by both companies and membership organizations on the alignment and consolidation of targets, and which key indicators of the circular economy to track.

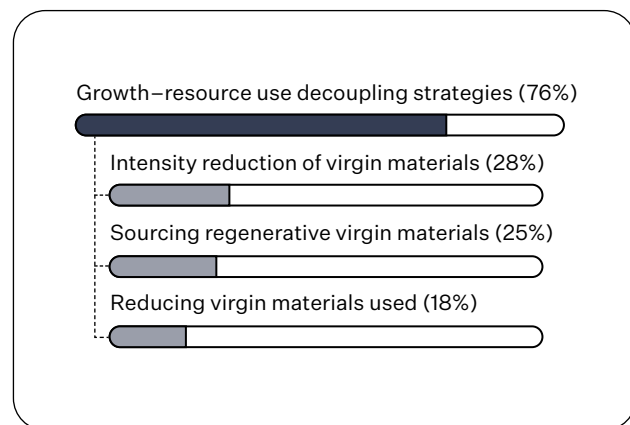
By 2028 all our products will be made for a circular economy. We are also constantly working on new business models linked to circularity, such as rental, remake, and vintage. We are just starting to measure these products annually as a KPI.







## Decoupling economic growth

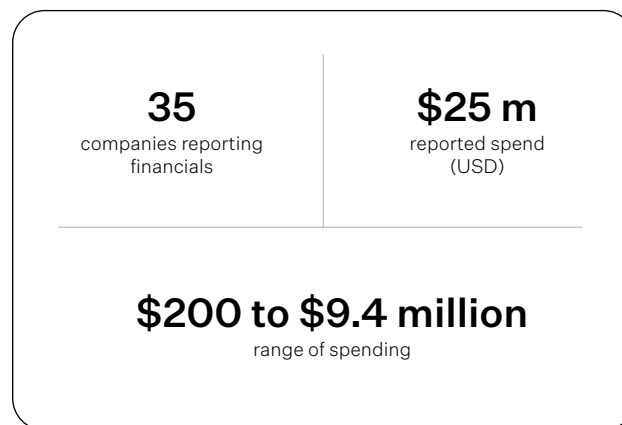


### Degrowth is an emerging conversation.

Decoupling economic growth from resource consumption is key to ensuring future economic growth while remaining within the planetary boundaries. Reducing volumes of virgin materials used relative to economic growth, and sourcing virgin renewable materials with regenerative qualities are the top two approaches. The “degrowth” conversation has begun and will be one to monitor.

We are currently transforming our textile waste to energy, composting organic waste, reusing and recycling plastic bags that we then buy, and exploring biodegradable fibers. We want to explore more alternatives and we are developing a circular innovation project to find other solutions for our textile end-of-life.

## Investment

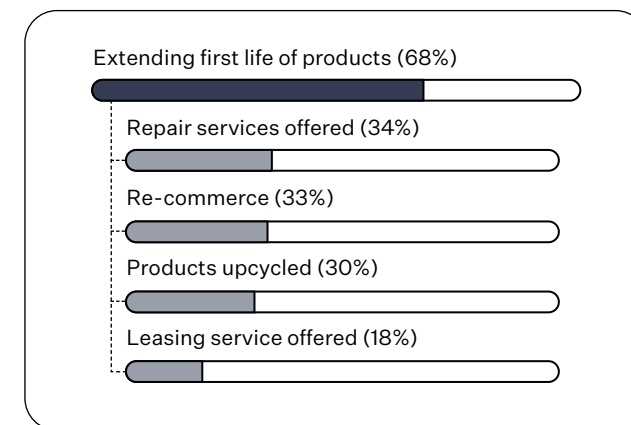


### Companies are investing in circular innovation.

It is evident that companies are investing in circularity (80%). Companies are building internal capabilities and making financial contributions towards new technology and innovation, including collaborative spending. While not the full picture, our analysis shows spending of approximately US\$25 million by 35 companies in 2020, many with multiple investments. Four companies invested over \$1 million, with two companies close to \$10 million each. Approximately 75% of the spend went to circular innovation and technology.

We invest in internal operations and capacity building, collection boxes, educational and promotional materials for campaigns, such as our product take-back program. We will be looking at opportunities for program expansion.

## Business models



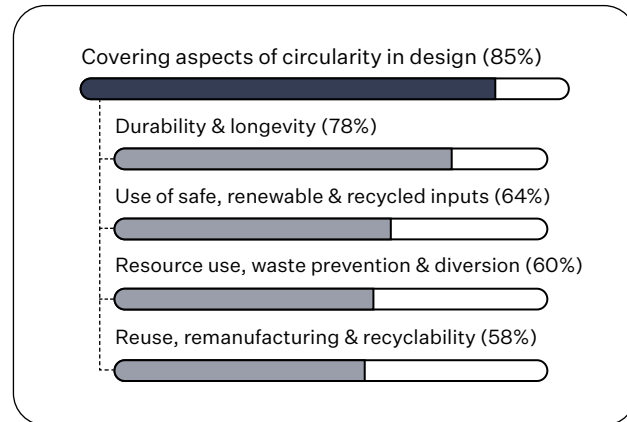
### Data aligns with other signs of growth in re-commerce\*.

68% of companies have reported one or more “circular business-related activity” although only 30% of participants provided quantitative data. Although too early to prove a trend, the number of companies reporting on re-commerce grew from six to 13 in 2020 and reported 600,000 more items in resale over 2019. It is possible that the [pandemic contributed to this growth](#). Other activities such as rental, repair, and upcycling all grew, with rental, evidently a more specialized activity, showing comparatively less growth.

\*Re-commerce is the reselling of finished, branded products through owned resale or through a partnership resale model ([Circularity Guide](#), page 18).



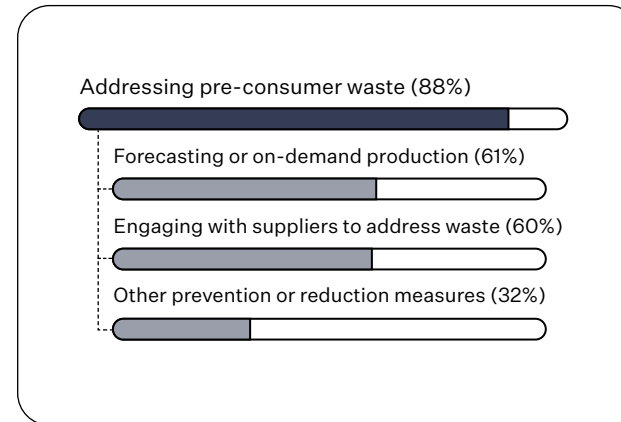
## Product design



**Product design is a popular approach to improving circularity potential.**

Designing products to last longer, be reused or repurposed, and eventually dismantled and re-entered into the production system, is the goal. Our data shows that durability in design (78%) is well established followed by material choice (including renewable, recycled and chemistry considerations), and resource use, waste prevention and diversion are following.

## Pre-consumer waste

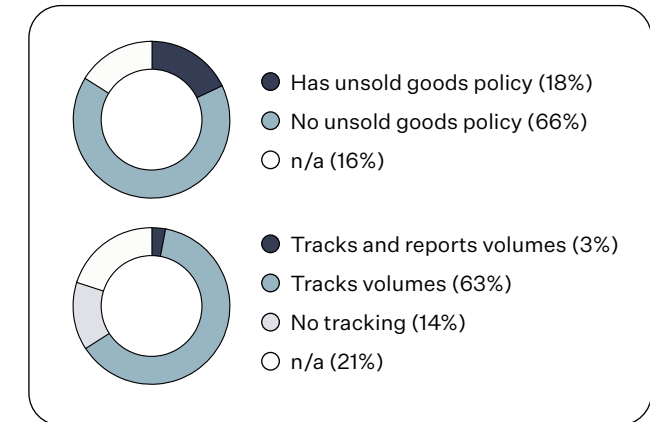


**Pre-consumer waste needs to be designed out.**

While less visible to wider society, pre-consumer waste—either from the production of product or from unsold finished products—needs to be firmly addressed. There is arguably no such thing as pre-consumer mill waste and efficiencies in manufacturing lead to cost savings. Innovation such as digital and 3D technology is scaling in the cutting and making of end-products, and this needs to work to reduce unsold goods.

We produce made to order. If we have items left after a season, we have a sample sale. We also donate to specific organizations.

## Unsold finished products

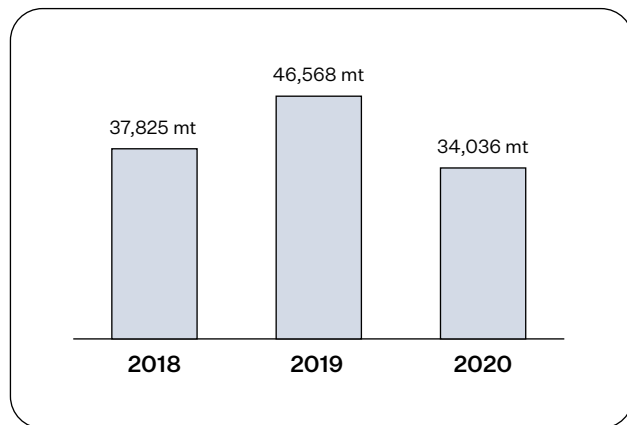


**Two-thirds of companies have a policy and tracking volumes of unsold goods.**

Unsold finished products (unsold goods) are finished products which could not be sold in the intended way as well as faulty or sample products. They include any finished goods that are written-off (i.e., liability goods) such as returns, defects, samples and other unsold inventory. In the main, companies have formulated policies laying out their position on the management of unsold finished products. 18% are yet to develop a policy, and there are a smaller group of companies (16%) that claim they do not have unsold products and therefore a policy is not applicable. While a number of companies are collecting and tracking data on items/volumes of unsold finished products, only 3% are reporting publicly.



## Post-consumer collection

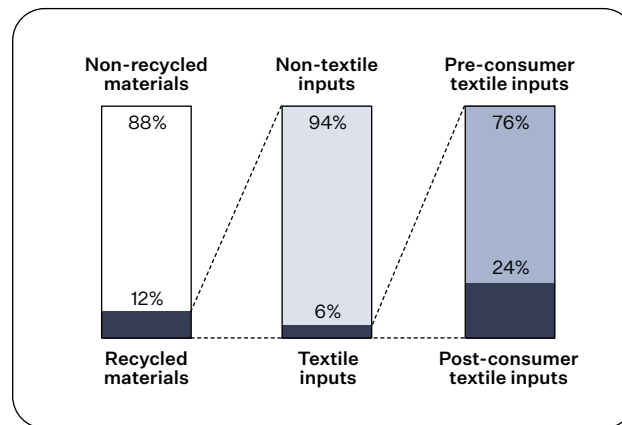


**Collection services were potentially impacted by COVID-19 social distancing requirements.**

Looming Extended Producer Responsibility (EPR) regulations have catalyzed implementation of take-back schemes in some geographies. 63 of the 114 companies reporting on circularity have a take-back scheme of their own or collaborate with other organizations to collect. A smaller number of participants support their customers with take-back advice but do not collect. 42 (67%) of the 63 companies with take-back systems could report on volumes. Collected volumes of post-consumer textiles dropped by 30% between 2019 and 2020, possibly due to COVID-19 lockdowns and associated health and safety risks.

In 2019, we provided a take-back program where customers were able to return certain products in exchange for a store gift card. This program was paused in 2020 due to the outbreak of COVID-19.

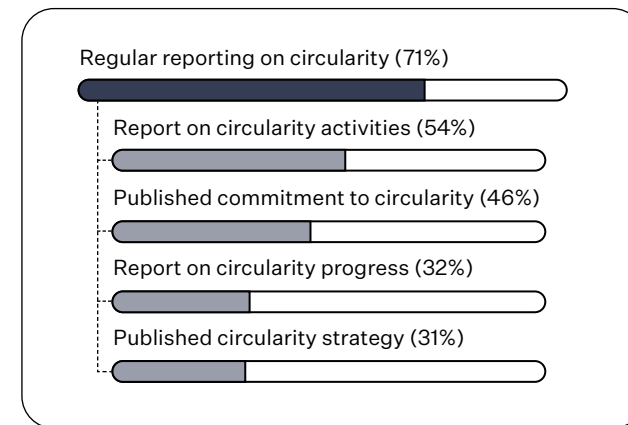
## Recycled content



**Some slow progress in recycled textile inputs.**

To transform materials from linear waste to a circular resource, companies must signal increased demand for recycled materials, especially those recycled from textile waste. In 2020, recycled content reached 12%. However, very little of that comes from textile sources (94% was from plastic waste). So, where will the 4.8 million tonnes of fiber sourced in 2020 by this group of companies end up when the users are finished? The textile system must include scaled sourcing of end-of-life textile materials as the feedstock for new products. Our data shows some progress with 1.49% of recycled content coming from post-consumer textile waste, equating to 0.18% of overall uptake.

## Public reporting



**Companies report out on circularity activities rather than disclose strategy or progress.**

Companies are most likely to report on their circularity activities (54% of reporting companies) than to publish information on their circularity strategy or progress tracking. This may be as much a reflection on the maturity levels of corporate strategies and agreement on what indicators the industry should be tracking. Work being done by the Ellen MacArthur Foundation should result in further clarity to support SMART targets against which to track progress towards a circular business.



## Moving forward with Laura Balmond, Make Fashion Circular Lead, Ellen MacArthur Foundation.

### How is the circularity agenda progressing in the textile industry?

LB: The circular economy is a systems solution framework to transform our current linear “take-make-waste” economy, and address global challenges such as climate change, biodiversity loss, waste, and pollution. The circular economy is now firmly on the agenda within the fashion and textile industry. We’re seeing ambitious strategies and targets from leading companies, yet the transition will take time as well as investment in infrastructure and innovation. Small scale circular models are being adopted and trialed—now, concerted and ambitious action is needed by both businesses and policymakers.

### What is one concrete example of progress you have seen?

LB: The [Global Commitment](#) has united more than 500 organizations behind a [common vision](#) of a circular economy for plastics. Companies representing 20% of all plastic packaging produced globally have committed to ambitious 2025 targets towards this vision. After decades of growth, virgin plastic use seems to have peaked for Global Commitment brands and is set to fall faster by 2025. In March 2022, UN member states agreed on the adoption of a mandate for an International Negotiating Committee to develop a legally binding [UN Treaty on plastic pollution](#). It is the first time that UNEA adopts a negotiation mandate for a new legally binding multilateral environmental agreement.

### What next steps do we need to move forward?

LB: A circular economy eliminates waste and pollution, circulates products and materials, and regenerates nature. It’s critical for organizations to get started today and practically apply these principles to accelerate progress more rapidly. By aligning common progress indicators with the Ellen MacArthur Foundation’s [vision of a circular economy for fashion](#), the MCI is providing a tool to generate data that can further support companies to identify where such efforts are delivering results, and where more ambitious action is needed.

## Moving forward with Helen Bird, WRAP’s Head of Program: Business Collaboration.

### How is the circularity agenda progressing in the textile industry?

HB: In recent years, the textiles industry has made positive progress toward reducing its carbon and water usage, but the need for continued change across the sector is more urgent than ever. Robust measurement systems are critical to monitoring progress and WRAP is working with businesses to improve data quality. To help accelerate the move towards a circular economy for textiles, WRAP launched the [Textiles 2030](#) voluntary agreement in the UK last year. Similarly, ambitious targets are also in place for the other sectors [WRAP](#) works across including food and drink, and plastics.

### What is one concrete example of progress you have seen?

HB: WRAP’s [Sustainable Clothing Action Plan](#) (SCAP) commitment, the predecessor to its Textiles 2030 voluntary agreement, was the first agreement of its kind to measure and act on climate targets within the UK fashion and textiles industry. [Under SCAP](#), signatories radically increased the use of more sustainable fibres in their products, from close to zero in 2012, to over 100,000 tonnes in 2020. Between 2012 and 2020 signatories also achieved a 21.6% reduction in carbon and an 18.2% reduction in water. SCAP paved the way for new ways of working and since then, we have seen businesses continue to show real commitment to collaboration and sustainability despite the tough economic climate. In the last year, more than 100 businesses, representing over 62% of all clothing products placed on the UK market, have signed up to help transform the UK fashion and textiles industry through Textiles 2030.

### What next steps do we need to move forward?

HB: WRAP’s ambition is for Textiles 2030 is to transform the way that the UK designs, produces, uses, and disposes of clothing and textiles. It requires radical change, not just from brands and retailers but from our signatories across the textile value chain, including textile collectors and recyclers, reuse organizations, technology innovators, sector organizations, academia, and government. Circularity will play an important role in this; however, we don’t currently have all the solutions. Innovation and scale-up will be needed. Sharing learnings, best practices, and expertise with similarly like-minded programs, like the Textiles Exchange Material Change Index, will also be essential.

# Materials Portfolio

# Section introduction

## Risk Management

Identifying and managing risks are good business practices and helps ensure the longer-term stability of the company and its operations. Issues such as climate change, availability and access to water, land use change, and biodiversity loss are considerations for most if not all businesses. Human rights and animal welfare sit at the heart of raw materials risk and opportunity.

## Investment

Investment is important to build capacity, scale production, and build markets for more sustainable fibers and materials. Additional investment, especially in the early stages, is necessary to support the social, technical, and operational development of the fiber or material and incentivize or reward the transition.

## Transparency

Environmental and socioeconomic risks are context specific. Transparency to country of origin refers to where the raw material is grown, cultivated, extracted, or otherwise produced. Different origins (locations, sites, communities and more) are associated with different geographical, environmental, socioeconomic, and political risks and opportunities.

## Uptake Targets

Setting uptake targets (for the procurement and use of preferred/more sustainable materials) is powerful as these targets can focus attention on achieving desirable outcomes. SMART targets (Specific, Measurable, Achievable, Realistic, and Timely) define and quantify precisely what a company wants to achieve and allows the measurement of progress year on year.

## Verification

Chain of custody models (such as standards, certifications, and declarations) are an important means to verify claims made regarding the use of more sustainable fibers and materials. Verification models help to track the actual or calculated volumes of more sustainable materials through the supply chain and add integrity benefits.

## Impact Monitoring

Being able to demonstrate that taking action results in real and meaningful change is probably the most important aspect of a company's work in sustainability. Approaches to measurement range from the use of primary or secondary data or Life Cycle Assessment, through to setting customized Key Performance Indicators directly in supply chains and tracking progress.

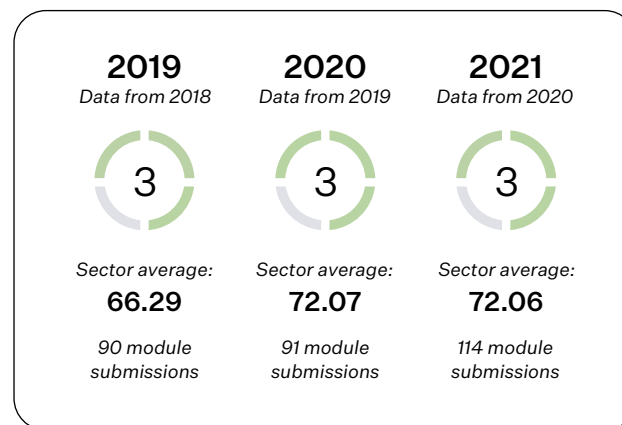




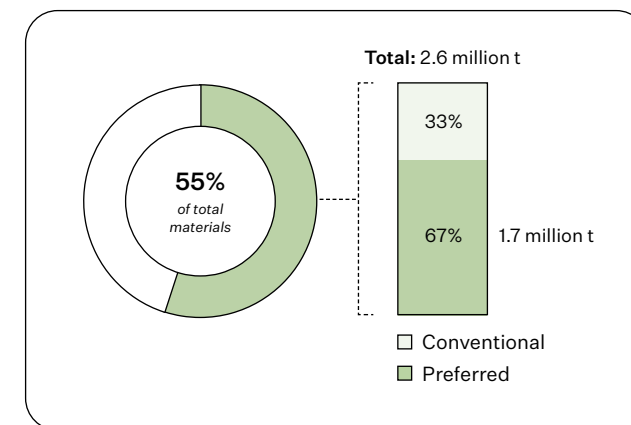
# Cotton



## Participant profile



## Cotton portfolio



### The MCI Cotton Index is constant at Level 3 (Maturing).

Cotton continues to be the dominant fiber type among benchmarking companies, comprising 55% of the uptake portfolio in 2020 of which 67% was from preferred sources. It is a contrast to global production in the same year, with cotton representing just 24% of all fibers produced that year, of which a 30% share comes from cotton programs (dominated by Better Cotton).

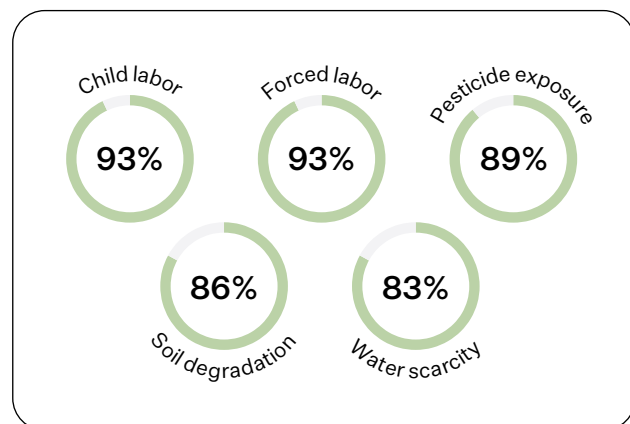
Cotton is the most advanced of all raw materials covered in the benchmark, and the MCI Cotton Index average sits at the higher end of Level 3 (Maturing), with no change in the Index average in 2021, despite a growth in the number of participants.

The number of companies completing the cotton module has increased by 27% over the past three years. It is the most frequently completed fiber module, with 114 companies (75% of all participants) completing it this year.

The following analysis is based on those 114 companies that completed the cotton module. However, uptake volumes include all cotton uptake data reported as part of a company's materials accounting, totaling 144 companies.



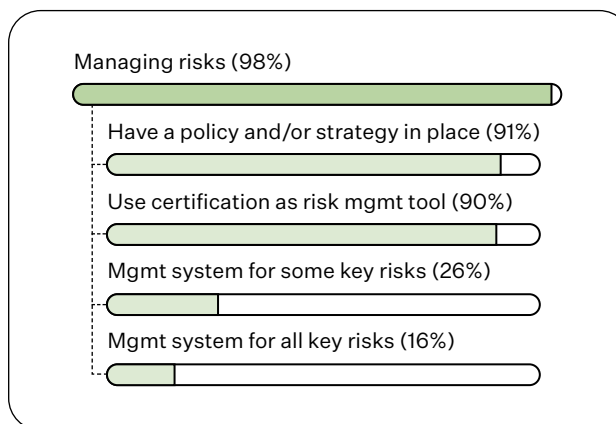
## Top five risks



**Child and forced labor are top-rated risks in cotton cultivation.**

Environment and labor-related risks persist in cotton cultivation and are key to consider in cotton management. The cotton module respondents consider child labor, forced labor, pesticide exposure, soil degradation, and water scarcity the main risks.

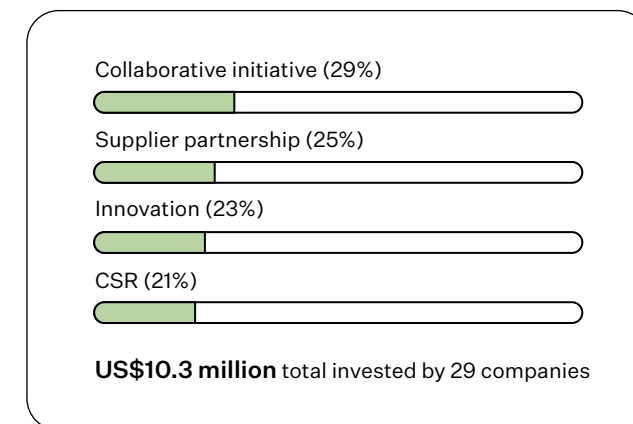
## Risk management



**Companies rely on strategy and certification to manage farm-level risks.**

Policy and strategy set the foundations for risk management, and most companies have one form or another in place. Respondents lean on standards and certification to mitigate farm-level risks which is critical. However, the next steps will be to identify hotspots for risk and opportunities in a geographical context to manage risk beyond certification.

## Investment



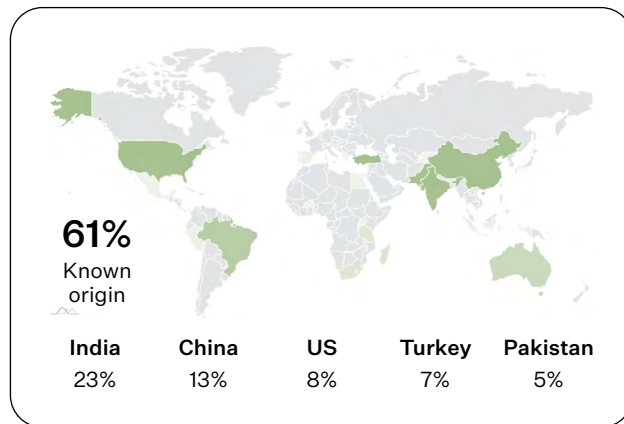
**Less than half of companies invest in cotton sustainability beyond sourcing certified materials.**

In 2020, 48% of benchmark participants invested in their cotton supply base. 29 companies provided financial data, often on multiple cotton investments and covering both in-kind and financial, short-term and longer-term investments. Three companies invested over US \$1 million each—with one company committed to 5 years (\$1 million/year) and another specifying that their annual contribution was “ongoing” annually. Corporate collaborations are happening with NGOs, European governments, and multistakeholder initiatives. Big spends are going into water stewardship and water basin restoration, Better Cotton (growth and innovation fund), regenerative and organic in-transition cotton programs, traceability, and recycling innovation. There was also reference to COVID-19 support.

# Cotton



## Transparency

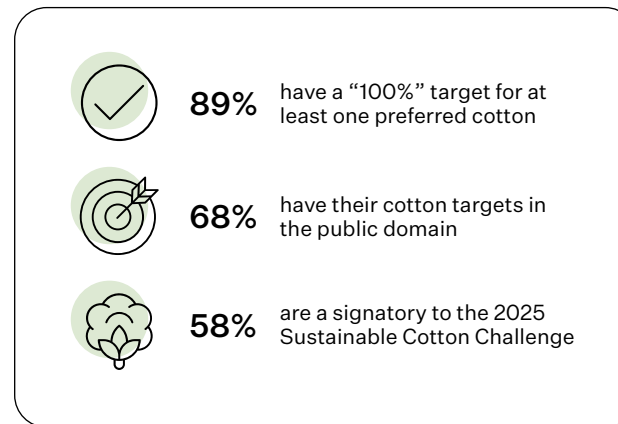


**Transparency of cotton origin needs to get from country-level to farm location.**

61% of cotton uptake could be traced back to country of origin, with many companies able to identify the country of origin for some (not all) of their cotton. 21% have established site locations for at least some of their supply. In 2021, the top five cotton sourcing countries by volume were India, China, US, Turkey, and Pakistan.

We fully disclose our global factory lists and publish detailed information including name and location of suppliers by country—for our primary suppliers, subcontractors, licensees, as well as suppliers where the majority of wet processes are carried out.

## Targets



**Public commitments and the wide range of cotton options are driving action.**

In 2020, 89% of the 114 cotton respondents had either set targets for “100% more sustainable cotton” or already reached their goal of only sourcing preferred cotton. 46 companies have achieved 100% preferred and a further 57 have converted 50% or more of their cotton use. Targets for 100% (including companies already having reached this target) are up 15% from 2018. Up to 2021, there were 137 Sustainable Cotton Challenge signatories (including subsidiaries) reporting uptake data, comprising 58% of the MCI cotton module participants.

## What companies are saying

### Risk Management:

There are numerous social, environmental, and ecological risks, not only for upstream cotton suppliers but also at the farm level, especially for small farmers in Global South. We work with nominated cotton cooperatives in sourcing countries addressing all aspects of cotton production, with our efforts leading to much reduced environmental impacts and better health outcomes for both the farm workers and the surrounding community. Additionally, we only purchase Fairtrade certified.

### Target Setting:

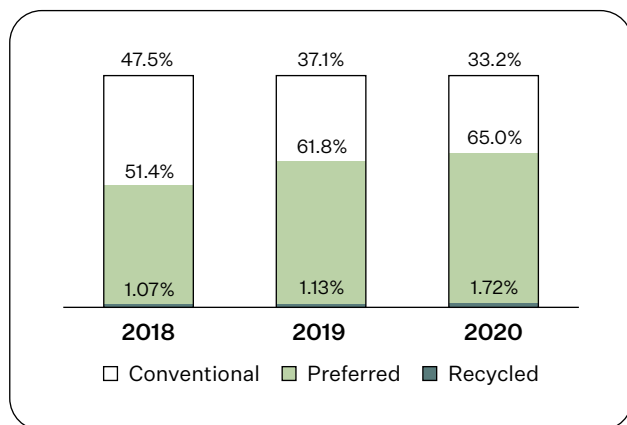
We aim to procure 100% of our cotton more sustainably by 2022 by using a portfolio approach. This year, we also formalized our ambition around organic cotton, with a target to source 100% certified organic cotton by 2025.

### Verification:

We collect vendor reported consumption data from our suppliers. For Better Cotton, we receive BCCU credits, which are independently verified. For recycled content, including cotton, we also require signed statements from vendors indicating the recycled content of the materials they are supplying.



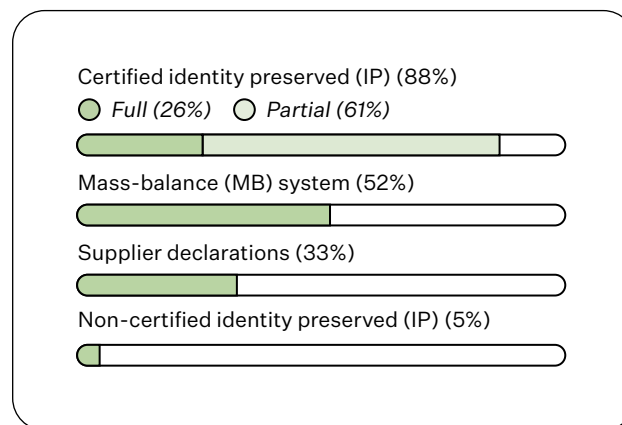
## Progress to preferred



**Continued increase in preferred cotton uptake is reaching a tipping point.**

Companies made progress in moving from conventional sourcing to preferred renewable. Volumes of the latter were up 14% from 2018 to 2020, with the lion's share being Better Cotton. Sourcing of recycled cotton remains low at around 1-2% over three years with little signs of scaling. The number of companies achieving 100% preferred (organic/recycled) has risen 32% over the past three years. 103 companies are sourcing over 50% of their cotton from preferred sources, compared to 68 companies in 2018.

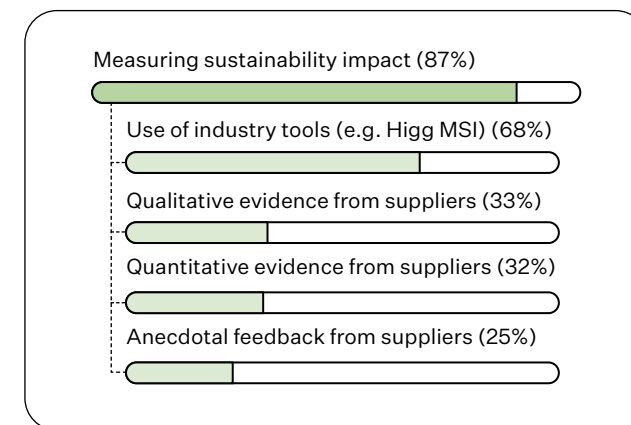
## Verification



**Overall, the use of verification standards has increased.**

There are numerous ways cotton sourced from sustainability programs can be verified, ranging from mass balance to third-party certification and identity preserved. The Global Organic Textile Standard (GOTS) remains the most common certificate for organic cotton, up 11% over the previous two years, followed by the Organic Content Standard (OCS) up 20%. For recycled cotton, the Global Recycled Standard (GRS) and the Recycled Content Standard (RCS) remain the most common certifications to verify claims—up 14% and 15% respectively.

## Impact monitoring



**Impact monitoring remains dependent on industry tools.**

Companies have made some progress in monitoring the impact of their cotton choices (up 11% from 2018 to 2020). In 2020, 87% of participants had monitored their impact, mostly using industry tools (68%) such as the Sustainable Apparel Coalition's Higg Materials Sustainability Index (Higg MSI). Considerably fewer are directly monitoring at farm level. Those that are, are either collecting qualitative or quantitative data, or a mix of both. It also remains challenging for companies to quantify the lower environmental impact associated with their cotton sourcing choices.



## Moving forward with Rui Fontoura, Textile Exchange's Cotton Lead

### Where do brands need to be going with their cotton sourcing in the next five or ten years?

RF: The industry needs to be achieving 100% preferred cotton production and consumption. It also needs to adopt business models that support Textile Exchange's holistic Climate+ outcomes for biodiversity, water, soil health and emissions reduction.

We need to work in partnerships promoting transparency in the cotton supply chain, enhancing the integrity of preferred cotton while promoting upscaling and rewarding best practices. We also need innovation within cotton recycling—this will be key in supporting the “degrowth” of virgin cotton production.

### What will be the major challenges to reaching this vision?

RF: The major risk is the climate change that is already happening. The scarcity of water in parts of the planet is already forcing farmers to abandon cotton production, while in other areas altered rain patterns are impacting the volumes and quality produced. Agricultural ecosystems are already experiencing disruption and these disruptions will impact downstream in the supply chain in the not-too-distant future.

### How will Textile Exchange help the industry to move forward?

RF: We will help set the direction of travel for the cotton value chain, promoting farming systems that deliver our Climate+ outcomes. We aim to drive a shift to regenerative practices and systems, working with recognized preferred cotton initiatives, facilitating acceleration, and validating progress. We will also support the conversion to better practices, since it is paramount to grow the availability of preferred cotton to meet the needs of the current demand.

We will help set the direction of travel for the cotton value chain, promoting farming systems that deliver our Climate+ outcomes.

Alongside improved verification, we need to be able to validate the impact of the increased production and use of preferred cotton. Data collection will be key, along with systems that support its governance. As well as helping brands and retailers align progress with the Sustainable Development Goals (SDGs), farmers and farm groups need a better understanding of the impact that these best practices have on ecosystems, understanding how exactly their adoption contributes to the reduction of greenhouse gases while bringing benefits for nature.

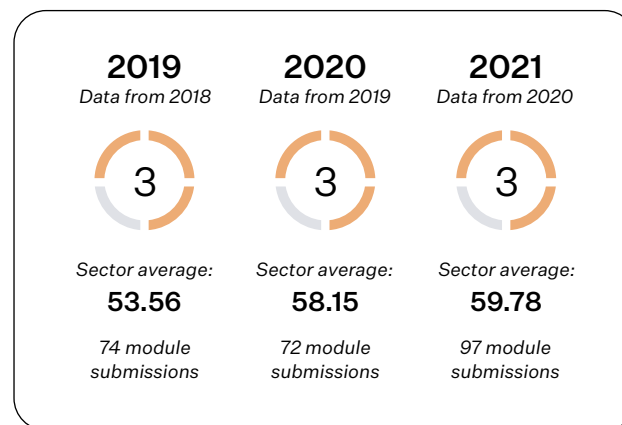




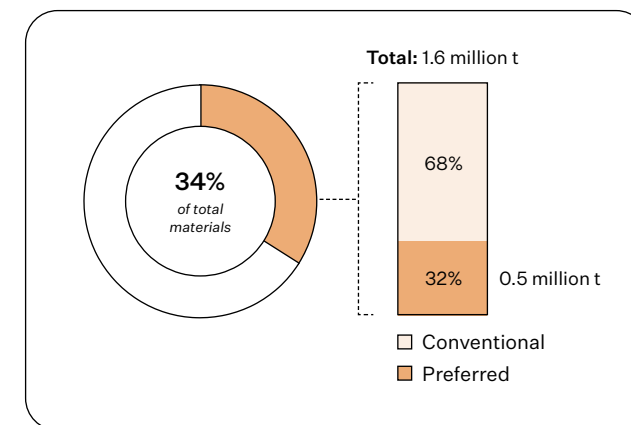
# Polyester



## Participant profile



## Polyester portfolio



### The MCI Polyester Index is moving up in the Level 3 (Maturing) banding.

Polyester remains the second highest volume (34%) reported by the benchmarking companies, with 32% from preferred (mostly recycled) sources. In contrast, polyester dominates materials production at 52% of the global fiber basket, with 15% from recycled inputs.

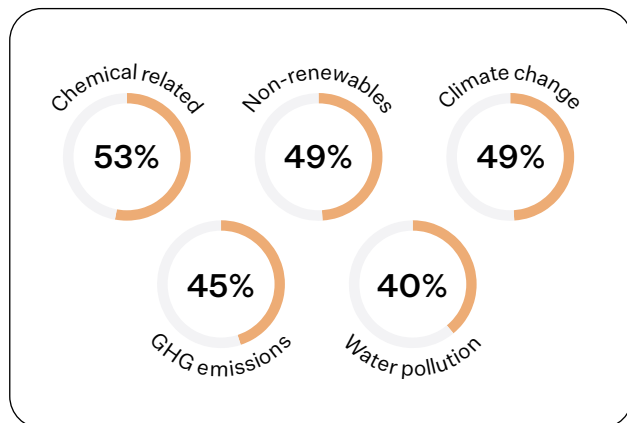
The MCI Polyester Index remains in the lower ranges of the Level 3 (Maturing) banding, but there has been a consistent increase in the Index average from 2019 to 2021.

Polyester was the second most frequently completed materials module, after cotton (participant numbers jumped 35% between 2020 and 2021). 97 companies (63% of all participants) completed the polyester module in 2021. The following analysis is based on the 97 companies that completed the polyester module. Uptake volumes include all polyester uptake data reported as part of a company's materials accounting, totaling 131 companies.





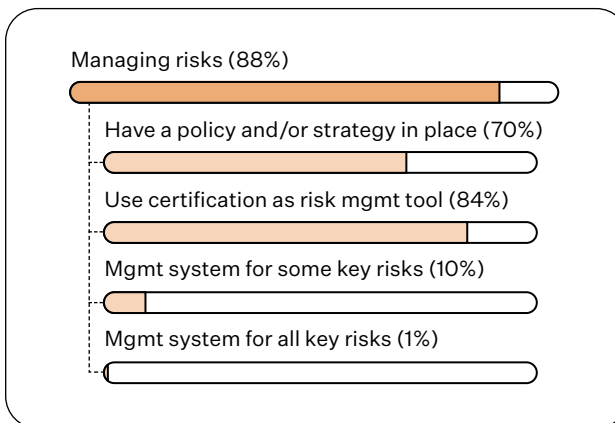
## Top five risks



**Key risks are those related to chemical use and non-renewable resource use/climate change.**

Conventional virgin synthetic fibers (including polyester) are made from fossil fuels and deeply associated with chemical-related risks, use of non-renewable resources, and climate change. Other risks listed by participants include greenhouse emissions and water pollution, which are closely tied to climate change. Participants identified labor-related risks within the top six. We do not have the breakdown but assume company risk lists include risk associated with recycled as well as virgin feedstocks, where conditions for informal waste collectors is an emerging concern.

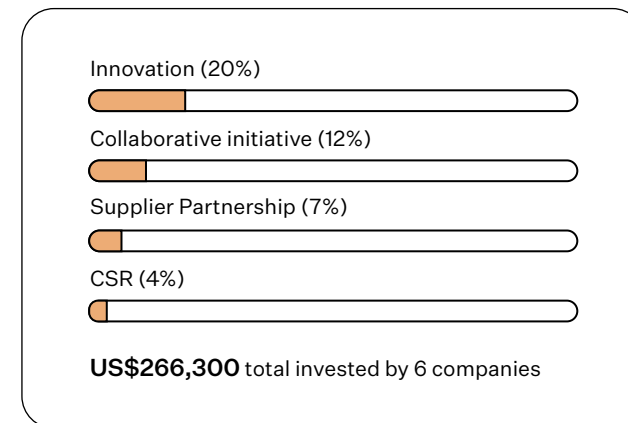
## Risk management



**Policy, strategy, and certifications remain essential to risk mitigation.**

Most companies depend on policy setting and use of certification in their recycled polyester supply chains to mitigate associated risks. However, even here certification coverage is patchy, as we will see later in the verification analysis. For conventional virgin polyester some companies use certification such as BLUESIGN and ZDHC programs to manage chemical-related risks in processing. A minority (11%) of companies go beyond the use of certification and have management systems in place for some of their identified risks. 12% are yet to get started on the journey.

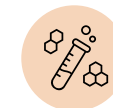
## Investment



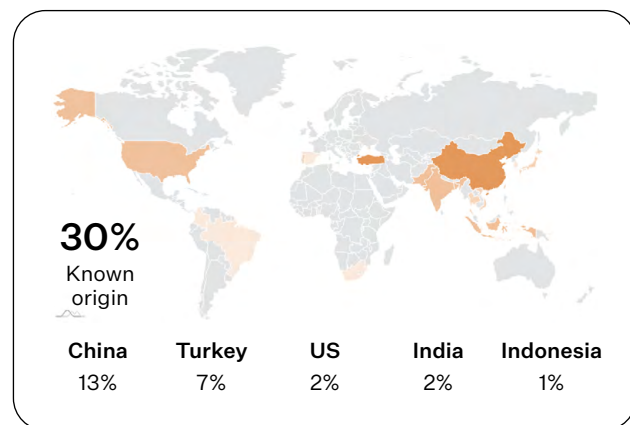
**Investment is low but where it exists the focus is on innovation.**

A quarter of participants (25%) invest in improving the sustainability of polyester production. Given the significant share of textiles that originate from non-renewable fossil-fuel based polyester, much more investment is needed. However, 20% of companies said they are investing in innovation, which is a start. It is important to note that the investment question excludes contributions for the use of standards and certifications or the actual uptake of recycled polyester, where we know this cohort of companies is setting ambitious targets and working hard on the transition. In terms of financial data, numbers were received from 6 companies, investing approximately US \$266,300, with one company dominating the total spend. Investment areas cited were innovations in recycling, product development, research into microplastics, and ocean waste collection.

# Polyester



## Transparency

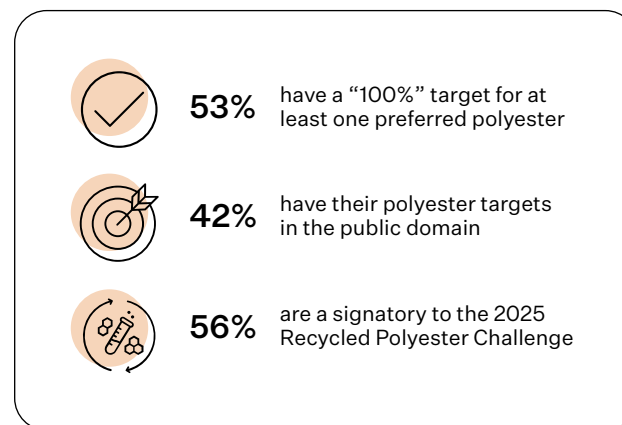


### The transparency of polyester feedstock is improving.

Country of origin for polyester refers to polymer production, collection of recycled feedstock, and country of feedstock production for biobased polyester. Since it is impossible to track conventional virgin polyester back to the original oil well (the equivalence of the cotton farm or sheep farm) defining exactly the “country of origin” for virgin polyester is challenging. In 2020, 30% of polyester feedstock was traced back to origin (from 23% in 2019). The top five countries by volume were China, Turkey, US, India and Indonesia.

In our company, we have fully mapped our Tier 1 and our core Tier 2 suppliers, which are responsible for approximately 80% of our business volume.

## Targets



### There is ambitious target setting for recycled polyester.

Companies with a 100% target for recycled polyester have increased from 38% in 2018 to 53% in 2020. 11 companies have achieved 100% recycled and a further 23 companies are at >50% of their polyester portfolio. This is encouraging, given that the number of companies participating in the polyester module has increased from 72 to 97. In 2021, 109 companies (including subsidiaries) committed to the new 2025 Recycled Polyester Challenge, comprising 56% of the polyester module participants. Reporting companies are up by 200% over previous numbers of signatories reporting through the benchmark—not so surprising given the new requirements for all Challenge signatories to report annually.

## What companies are saying

### Risk Management:

We minimized the risk of supporting fracking or crude oil extraction as we only uptake recycled polyester fibers, no virgin polyester at all. Furthermore, we make sure that the used recycled polyester fibers or yarns are Global Recycled Standard (GRS) or Recycled Claim Standard (RCS) certified.

### Target Setting:

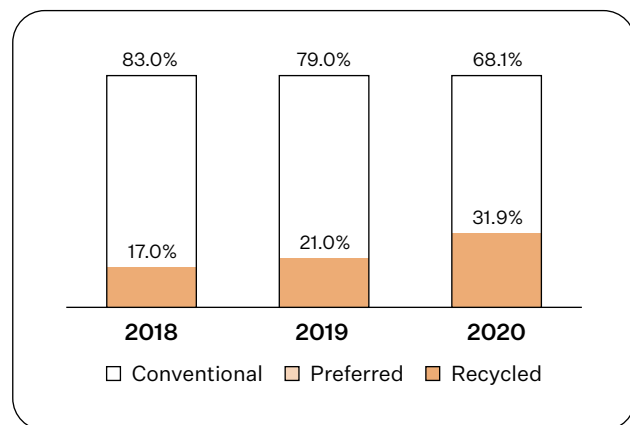
Our overall target is to reduce the use of synthetic fibers, which includes sourcing 100% sustainable polyester by 2023. Our target for sustainable polyester includes recycled polyester, as well as biobased polyester.

### Verification:

We require our material suppliers with recycled content claims to provide GRS or RCS Scope and Transaction Certificates. We also request our Tier 2 suppliers to provide weight of fiber quantity each quarter along with a Transaction Certificate and a supplier declaration that the recycled content claim of the material is accurate.



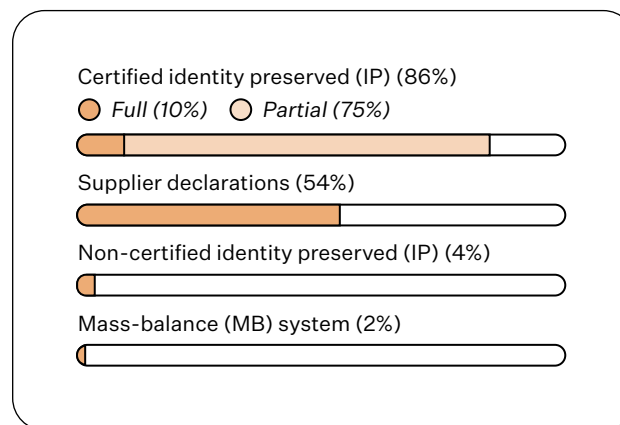
## Progress to preferred



### Ambitions for recycled polyester are reaping rewards.

There has been significant increases in the uptake of recycled polyester, from 17% recycled in 2018 to 32% in 2020. The share of conventional polyester has steeply reduced from 83% in 2018 to 68% in 2020. 60% of recycled polyester feedstock is reported to be from non-textile waste (mostly plastic bottles), and over quarter (36%) is from unknown sources, which can be assumed to be recycled plastic. The remaining 4% is from textile-based feedstock; most is of unknown origins.

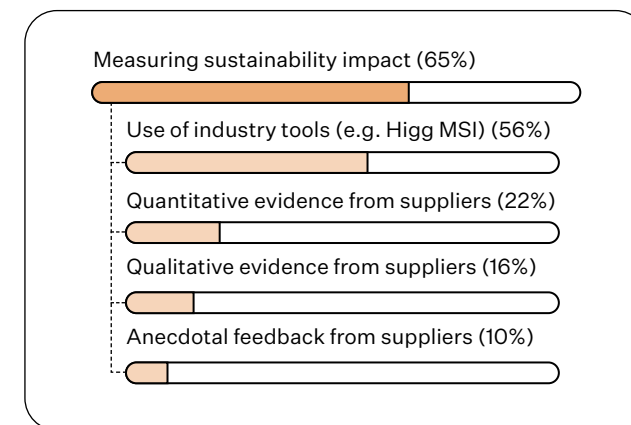
## Verification



### There is an increase in the use of verification models, but supply chain coverage is still patchy.

Each year, there has been an increase in the use of certification for verifying recycled polyester claims. This has risen from 66% in 2018, to 82% in 2019, to 86% in 2020. 89% of the polyester cohort use the Global Recycled Standard (GRS) for verification, and this share has increased from 65% in 2018 to 81% in 2020. 54% of participants use the Recycled Claim Standard (RCS), and there will be some companies using a combination of both. It is important to note that supply chain coverage is still low, and work must continue to certify all suppliers to achieve full chain of custody and a content claim on products. Supplier Declarations are commonly relied upon (42% of companies in 2020) and increasingly we will see the use of other tech-based traceability tools.

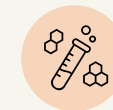
## Impact monitoring



### Companies are dependent on industry tools for impact monitoring.

65% of polyester participants used industry tools, such as the Sustainable Apparel Coalition's Higg Materials Sustainability Index (Higg MSI) for measuring impacts associated with their polyester portfolio. 22% reported to collect customized quantitative data from suppliers. The remainder said they collected qualitative or anecdotal information from suppliers, such as case studies.

# Polyester



## Moving forward with Kate Riley, Textile Exchange's Synthetics Lead

### Where do brands need to be going with their polyester sourcing in the next five or ten years?

KR: Synthetic materials have seen considerable growth in recent years, which is expected to continue. In order to remain within the 1.5°C pathway and ensure climate goals are achieved, the impacts of synthetic fibers must be significantly reduced, and we must accelerate the transition away from fossil-fuel derived synthetics towards synthetics from recycled or regenerative sources.

### What needs to be done to get there?

KR: In order to do this, the industry needs to focus on three key areas: Increasing the scale of readily available solutions, shifting inputs for recycled synthetics towards textile-to-textile feedstocks, and investing and innovating around next-generation solutions including (100%) biosynthetics and potentially CO<sub>2</sub>-derived synthetics.

Alongside these key focus areas for synthetic fibers, it is important to note that these changes need to be implemented whilst also taking into account working towards minimizing the impact of synthetic fiber fragments entering the environment, during production, use, and end-of-life phases of a product.

### What is the future for synthetics?

KR: Synthetic fibers have provided the apparel and textile industry with low-cost, high-performance materials, which have been invaluable in making products accessible to a wide range of markets and end use applications. They are a category which presents huge opportunities for circularity, durability and longevity.

In order to remain within the 1.5°C pathway and ensure climate goals are achieved, the impacts of synthetic fibers must be significantly reduced.

All we need to do is tap into the unlocked potential of synthetics fibers to transition the industry towards cleaner, better, non-fossil fuel derived synthetics without compromising the well-being of people and planet and ensuring we can meet Climate+ goals. The time to act is now!

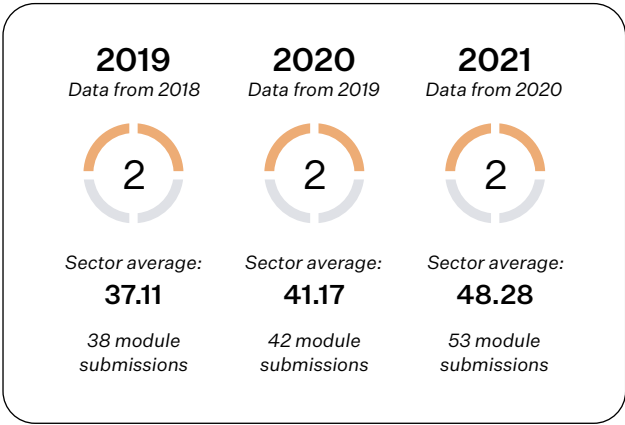




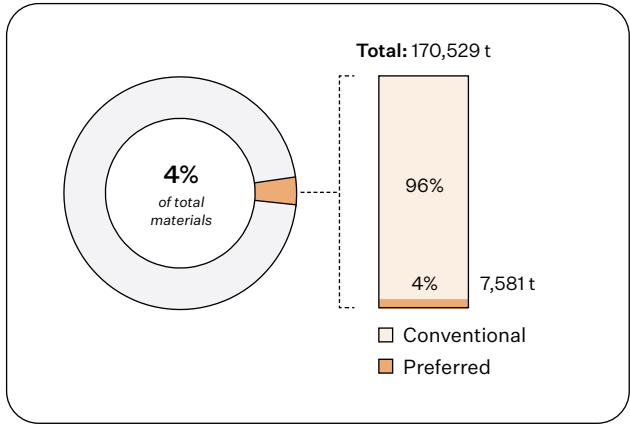
# Polyamide



## Participant profile



## Polyamide portfolio



**The MCI Polyamide Index is moving up the Level 2 (Establishing) banding.**

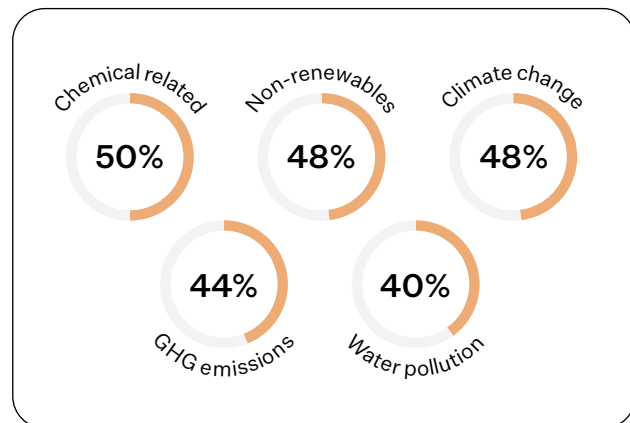
Polyamide represents the lowest reported volume, outside of animal fibers, comprising 4% of participating brands' uptake portfolio, with 4.5% from preferred (mostly recycled) sources. These uptake shares closely mirrored global production in 2020, where polyamide represented 5% of the materials basket, with 5% recycled or biobased.

The MCI Polyamide Index remains in a Level 2 (Establishing) position. However, there has been a consistent increase in the Index average from 2019 to 2021.

53 companies (35% of all participants) completed the polyamide module in 2021, an increase of almost 40% over three years. The following analysis is based on the 53 companies that completed the polyamide module. Uptake volumes include all polyamide uptake data reported as part of a companies materials accounting, totaling 103 companies.



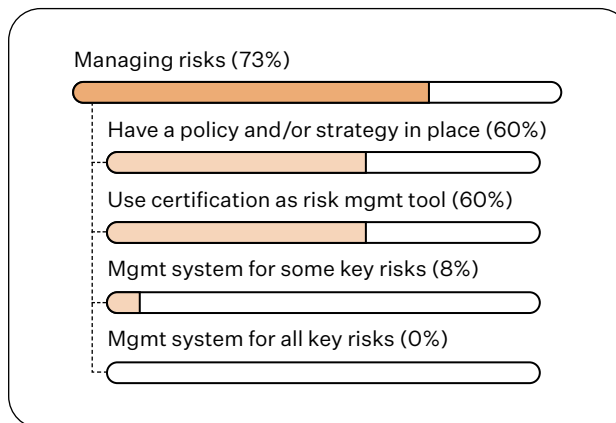
## Top five risks



**Chemical-related risks and climate are at the top of the risk list.**

Conventional virgin synthetic fibers (including polyamide) are made from fossil fuels and deeply associated with chemical-related risks, use of non-renewable resources, and climate change. Other risks listed by participants include greenhouse gas emissions and water pollution, which are closely tied to climate change and toxicity. We do not have the breakdown but assume company risk lists include risk associated with recycled as well as virgin feedstocks.

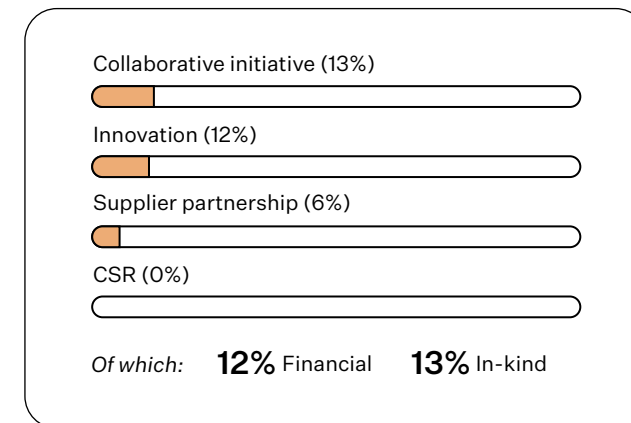
## Risk management



**Strategies and commitment to certification sets promising foundations for improvement.**

Over a quarter of companies (27%) are yet to start managing risks associated with their use of polyamide. From the 73% that have started, most depend on policy setting and use of certification in their recycled polyamide supply chains. For conventional virgin polyester some companies use certification such as BLUESIGN and ZDHC programs to manage chemical-related risks in processing. A minority (8%) of companies go beyond the use of certification and have management systems in place for some of their risks. On the bright side, despite growing numbers of participants, the use of policy and strategy is up 42% from 2018 to 2020 and the use of certification is up 13%.

## Investment



**Investment remains low, but collaborative initiatives gain importance.**

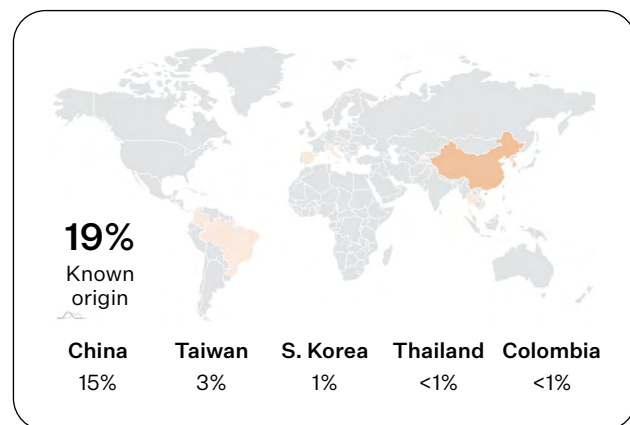
Investment appears to remain low in polyamide, with very little data reported by companies over the past three years. A number of companies noted that their investment figures are confidential. There is not enough financial data submitted to analyze trends, except to say that collaborative initiatives such as ghost (abandoned) fishing net removals from oceans for recycling, exploring through R&D, and innovations such as recycled and biobased feedstocks were the most commonly mentioned—up from 8% to 13% from 2018 to 2020.



# Polyamide



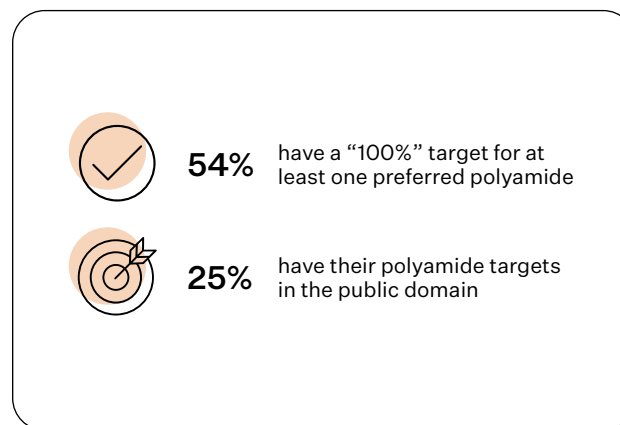
## Transparency



### Transparency of polyamide feedstock origins is low.

Country of origin for polyamide refers to polymer production, collection of recycled feedstock, and country of feedstock production for biobased polyamide. Since it is impossible to track conventional virgin polyamide back to the oil well (the equivalence of the cotton farm or sheep farm) defining exactly the “country of origin” for virgin polyester is challenging. In 2020, 19% of polyamide feedstock was traced back to origin. The top five countries by volume were China, Taiwan, South Korea, Thailand, and Colombia.

## Targets



### Companies are stepping up on ambition for the transition to recycled polyamide.

Target-setting has moved up considerably (18%) over the years, with 54% of companies setting measurable, time-bound targets. Targets include recycled and biobased. BLUESIGN certification is also popular but not strictly a feedstock production program. Two companies have achieved 100% recycled polyamide and a further eight have surpassed 50% of their polyamide portfolio. 25% of companies have made their targets public which helps build commitment and accountability. From our insights and seven annual cycles, polyamide is probably where polyester was three to five years ago. But with determination and scaling of innovation, companies could make up ground fast.

## What companies are saying

### Risk Management:

Feedstock risks are being managed by switching over to recycled nylon, regenerated nylon from fishing nets (ocean plastics) and solution dyed nylon, using Global Recycled standard certified and following chain of custody requirements.

### Target Setting:

Our goal is to decrease our use of polyamide. In cases where we do use polyamide, we would use recycled instead of conventional.

### Investment:

We are a member of EFFECTIVE, an EU-funded multi-national research project developing bio-based polyamide fibers to replace synthetic oil-based materials.

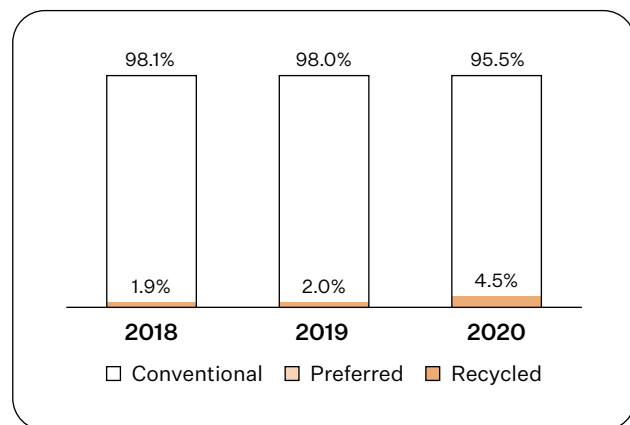
### Verification:

Our sourcing guidelines are that we should only source recycled polyamide with GRS or RCS certification in order to know the chain of custody.

# Polyamide



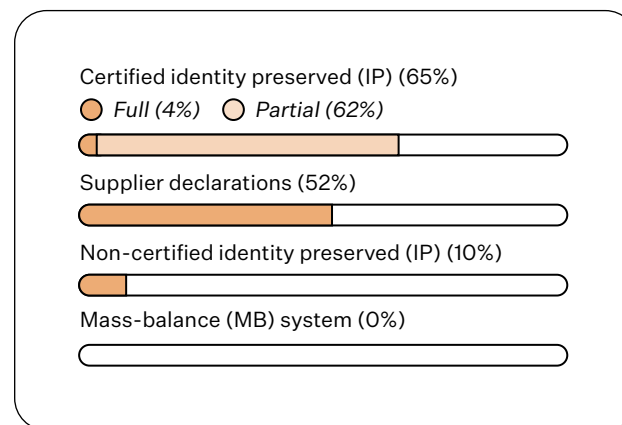
## Progress to preferred



### Recycled polyamide is still at the start of the journey.

Polyamide is a small-volume material for most companies yet for others, such as swimwear and some outdoor brands, it is a priority and can represent a considerable share of a company's materials portfolio. Overall, polyamide remains conventional, however the recycled share has nudged up from 1% to close to 5% over the past three years. With the growth in target-setting, innovation in polyamide recycling, and new initiatives, it will be interesting to see how recycled and biobased polyamide uptake increases going forward.

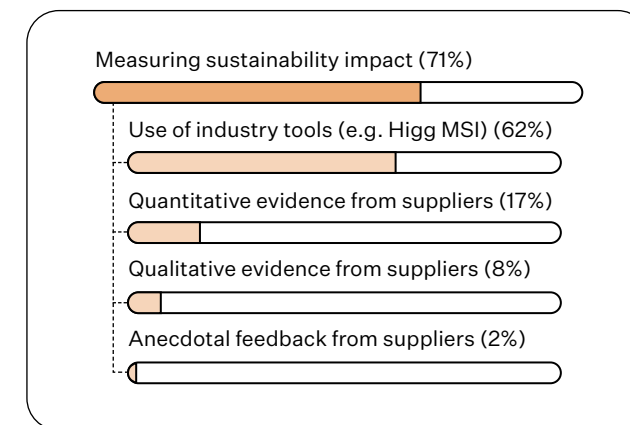
## Verification



### Use of verification programs is growing including supplier verification of branded materials.

Over three years, there has been an increase in the use of both the GRS and the RCS. In 2020, the GRS remains the most common verification program used by 74% of polyamide participants. It is important to note that full supply chain coverage is low (2%), and work must continue to certify all suppliers to achieve full chain of custody and a content claim on products. Supplier Declarations are commonly relied upon and increasingly we see the use of branded materials with their own traceability systems.

## Impact monitoring



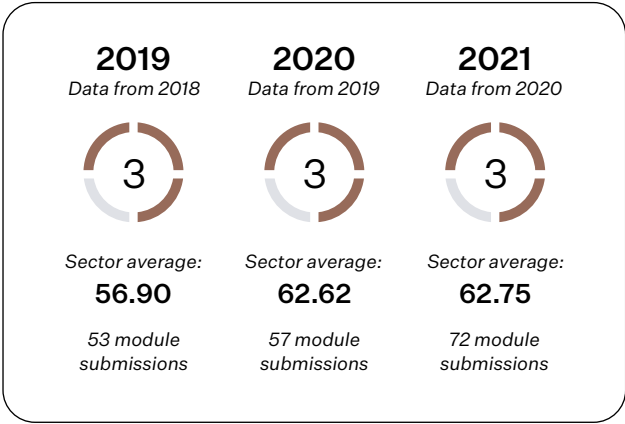
### Companies are dependent on industry tools for impact monitoring of polyamide use.

62% of polyamide participants used industry tools, such as the Sustainable Apparel Coalition's Higg Materials Sustainability Index (Higg MSI) for measuring impacts associated with their polyamide portfolio.

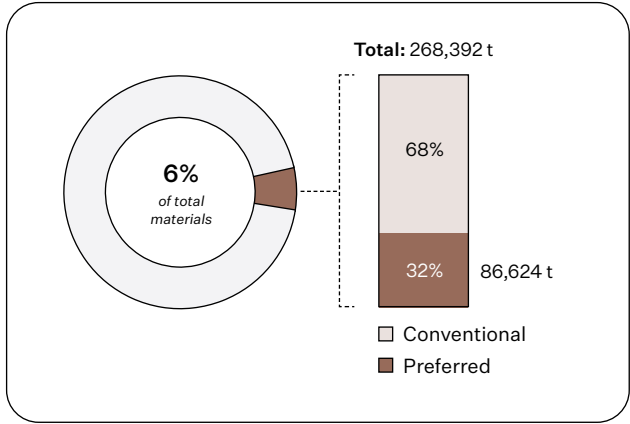
# Manmade Cellulosics



## Participant profile



## Manmade cellulosics portfolio



### MCI Manmade Cellulosics Index constant at Level 3 (Maturing).

Manmade cellulosic fibers (MMCFs) comprised 6% of materials reported in 2020, with 32% coming from preferred (certified) feedstocks (mostly FSC and PEFC forests, and small amounts of recycled cellulose). This is similar to global production, where MMCFs represented approximately 6% of global textile materials produced, but considerably higher shares of certified feedstock (55-60%).

Over the three years, the MCI Manmade Cellulosics Index remains relatively stable at Level 3, showing the biggest increase between 2019 and 2020.

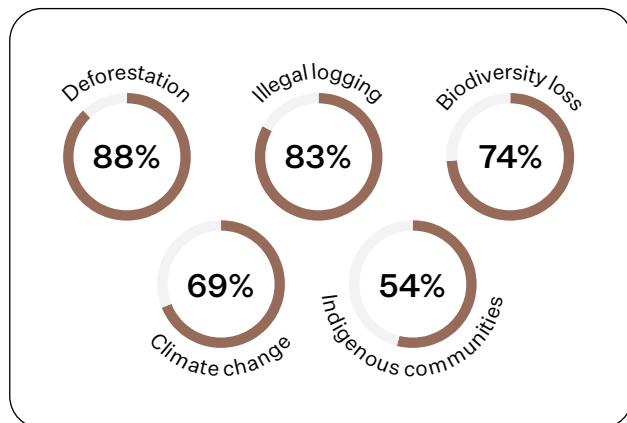
72 companies (47% of all participants) completed the manmade cellulosics module in 2021—up 36% from 2019 to 2021. The following analysis is based on the 72 companies that completed the manmade cellulosics module. Uptake volumes include all manmade cellulosic fiber uptake data reported as part of a companies materials accounting, totaling 106 companies.



# Manmade Cellulosics



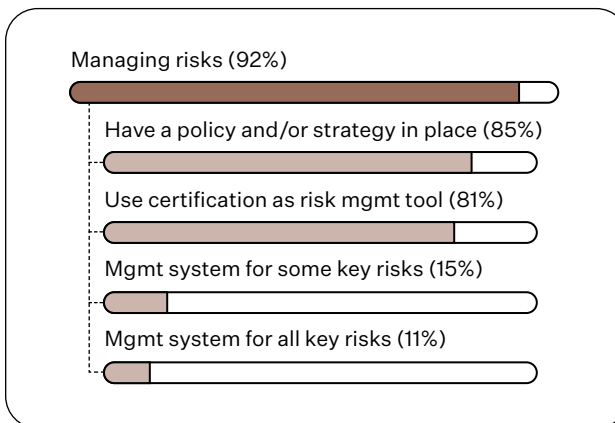
## Top five risks



**Deforestation and risk for Indigenous people, species and the climate are rightly at the top of the list.**

Deforestation sits at the top of the risk list for sourcing manmade cellulosic fibers (MMCF), followed closely by highly-associated risks of logging in high conservation value forests, biodiversity, climate change, concern for indigenous communities and species extinction.

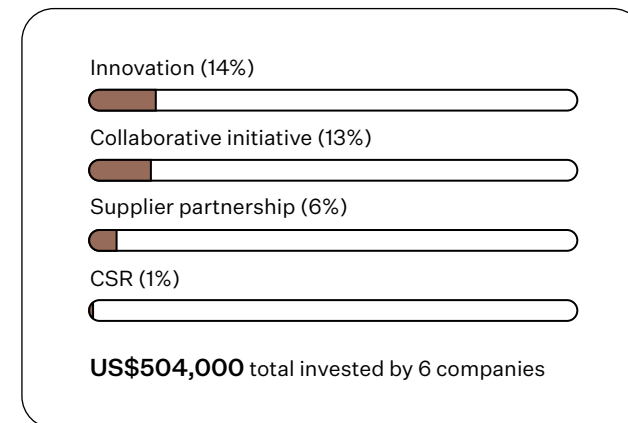
## Risk management



**Increased use of forestry certification but management systems are still lagging.**

There has been some improvement in mitigating risks associated with MMCF production. Three years ago, 30% of participants had not even begun their risk management journey, and our latest data shows only 8% with no plans. For the rest (92%) risk management is mostly in the form of policy adoption and strategies to protect against forestry-related risks and chemistry associated with the primary processing of MMCF. Sourcing certified feedstock (namely FSC and PEFC) from suppliers has been a key step in managing risk, however direct intervention remains low in forestry and the primary processing of pulp and fiber.

## Investment



**Investment is low but those investing are contributing to innovation and collaborative efforts.**

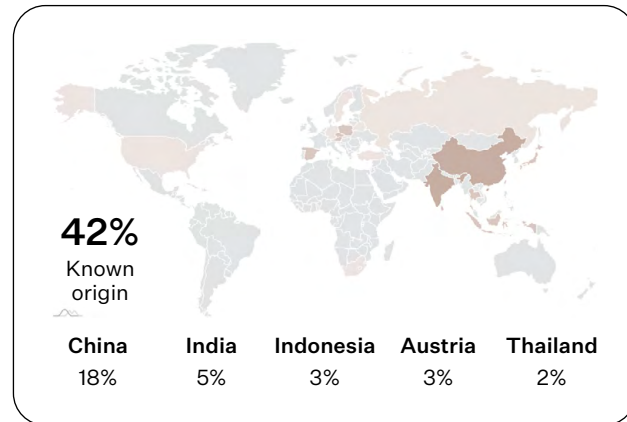
Investment remains low (35%) and is split between financial and in-kind contributions. Only 6 of the 72 module participants reported actual financials (totaling US \$504,000) which is too little data to arrive at any real trends. However, what is evident is that “next-generation” cellulose fiber based on waste is the dominant investment category, at least by the manmade cellulosics module participants.

For our Circular Fashion Partnership, we have introduced key suppliers to the initiative to help to segregate waste and to further waste traceability in Bangladesh.

# Manmade Cellulosics



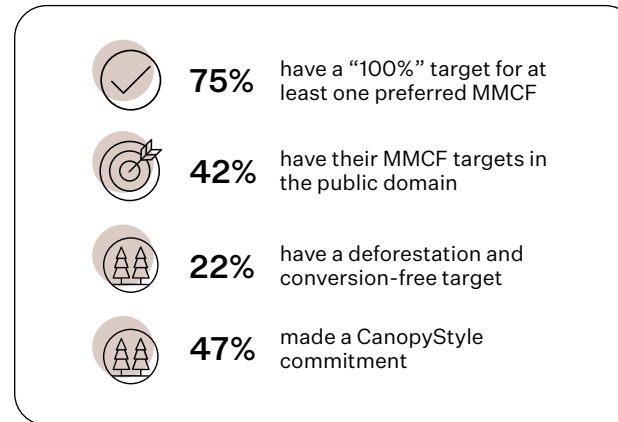
## Transparency



**Transparency of origin still challenging but key to meeting zero deforestation and related commitments.**

Transparency back to forest or alternative sources remains challenging due to the way forestry standards operate, and the complexities of physically tracking all the way to finished product, however 42% of participant supply is known at least at the country level. In 2020, where visibility exists, the top five sourcing countries by volume are China, India, Indonesia, Austria, and Thailand.

## Targets



**Commitments rightly focused on forests and more work needed to define fiber-level targets.**

75% of module participants have adopted a target for “100% more sustainable feedstock.” This usually translates to the use of certification, a preferred process such as lyocell (over viscose), and/or sourcing from a nominated supplier. 22% have set zero deforestation targets—which will become more and more important as legislation tightens around this topic and its connection to climate change. Overall, companies’ commitment to the sustainability of MMCF is growing, and 42% of participants have made their targets/commitments public. The CanopyStyle Commitment remains the most popular public commitment.

## What companies are saying

### Risk Management:

When vetting MMCF supply chains, we request CO<sub>2</sub> emissions data for each fiber type and require suppliers to create a Carbon Reduction Roadmap as a contingency for continued partnership. We are particularly concerned with the energy and chemical input necessitated by MMCF pulping and processing, which is why we are keeping the supply chain tight. As a part of our internal policy, suppliers must disclose progress towards CO<sub>2</sub> emissions reductions targets seasonally as a requirement for continued approval.

### Target Setting:

Our target is to source 100% more sustainable MMCF by 2023. We have mostly focused on increasing our use of trademarked products in order to address the issues of viscose feedstock and production.

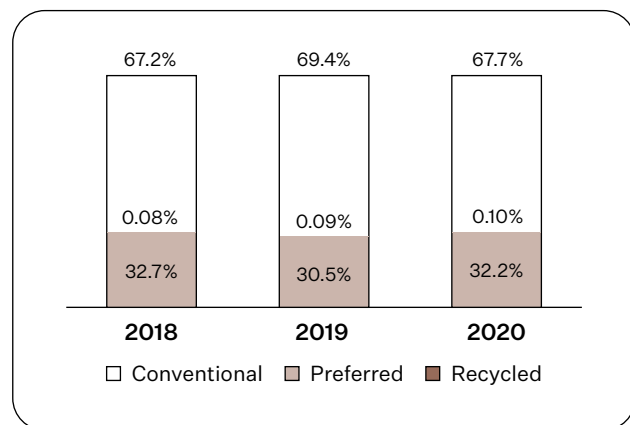
### Verification:

Last year we mapped 100% of our nominated mills, collecting information about which fibers they sourced, including MMCF, to find out how many MMCF producers are Canopy Green Shirt certified.

# Manmade Cellulosics



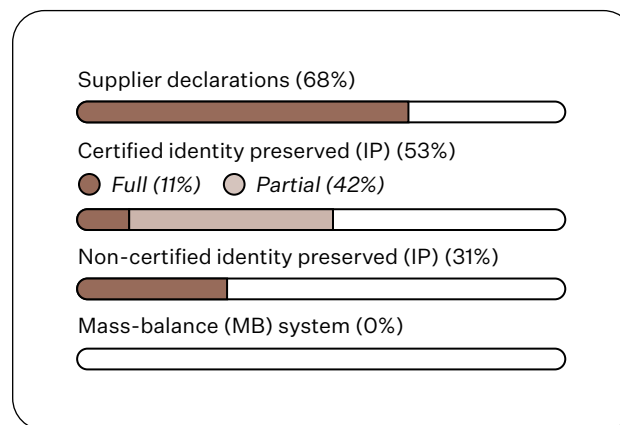
## Progress to preferred



**Volumes decreased in both conventional viscose as well as preferred versions.**

In 2020, COVID-19 impacted the total volumes of MMCF (and wool) consumed by benchmark participants. After seeing steady growth in the use of MMCF, uptake of both conventional and preferred fell in 2020 (-15% and -8% respectively), although proportions of preferred and conventional remained similar (at approximately 30% preferred). We know from PFMR data that this scenario was similar in global production, where MMCF production fell by 8%, in 2020. Progress in uptake of recycled cellulose remains nascent, representing less than 1% of the module participants MMCF portfolio.

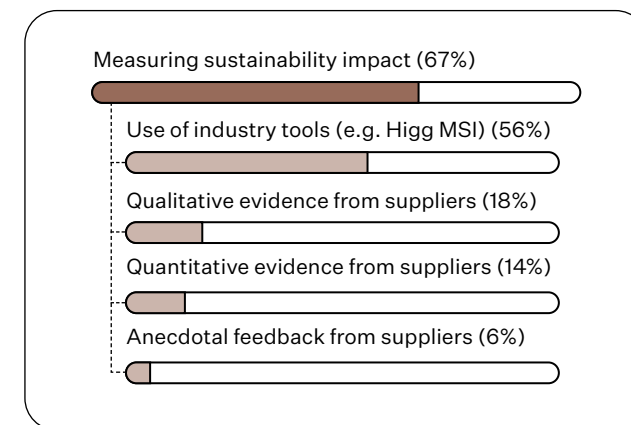
## Verification



**Supplier declarations are used for verification but signs of switching to stronger methods.**

Companies' reliance on supplier declarations to validate their MMCF credentials could be waning, decreasing from 75% to 68% of participants. 53% now use identity-preserved (IP) systems (e.g., FSC, PEFC, GRS) to verify at least some of their wood-based or recycled sourcing (up 21% from 2019). Non-certified IP systems have significantly increased (up 25% from 2018) and could reflect the use of new technology that is being trialed and scaled in the industry for tracking branded materials.

## Impact monitoring



**Companies continue to use industry measurement tools.**

In 2020, 67% of module participants were measuring the impact of MMCF production, with most (56%) using industry tools such as the SAC Higg MSI—up 16% over previous years. A smaller group are collecting primary data either qualitative or quantitative.



# Manmade Cellulosics



## Moving forward with Meg Stoneburner, Textile Exchange's Fiber & Materials Director

### What's coming up for manmade cellulosic fibers?

MS: We need to see a significant reduction in GHG emissions and beneficial Climate+ outcomes by 2030, and manmade cellulosic fibers (MMCF) will be part of the solution. The industry need to prioritize decarbonizing Tier 4 and Tier 3.5 of the supply chain (3.5 is the initial processing stage of raw materials). We will also need to limit the amount of wood-derived feedstock sourced for MMCFs, and what is sourced must be certified from responsibly managed tree farms. At the same time, we need to significantly shift feedstocks to next generation inputs from waste streams.

### What needs to be done to get there?

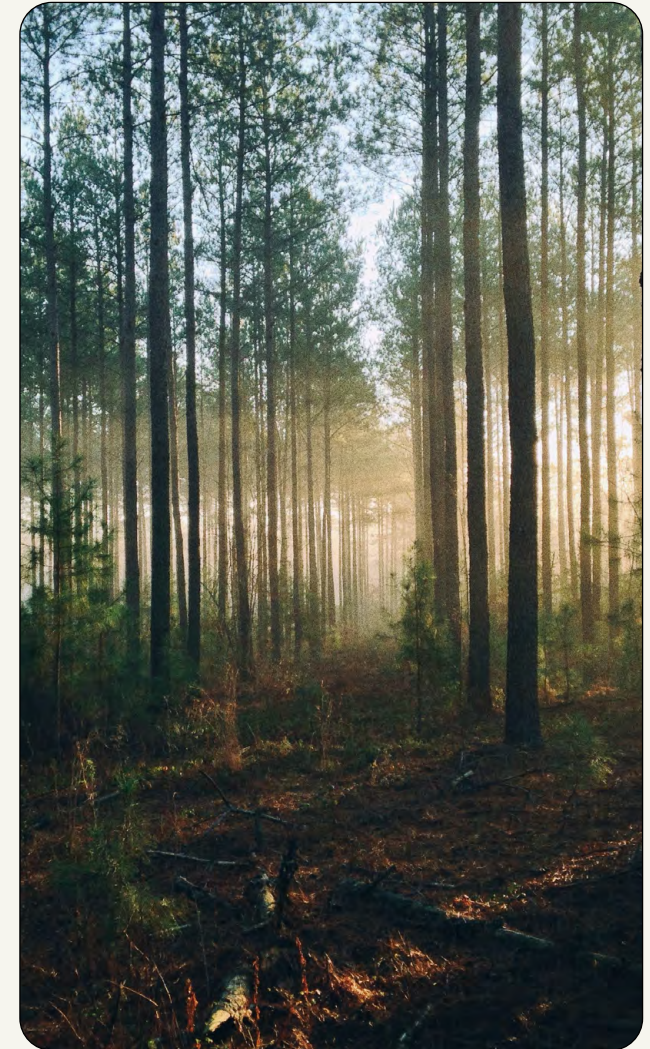
MS: Deforestation Free campaigns are bubbling up across many sectors, while legislation and regulation continue to see increased traction and growing support. The MMCF supply chain is a relatively concentrated network of suppliers. Through the Changing Markets Roadmap, CanopyStyle's Hot Button report, and our recent MMCF Supplier Questionnaire, this is an area in the supply chain where we see increased transparency. However, there is always room for improvement and technology to drive efficiency and accuracy.

### Can you give us examples of progress?

MS: Yes! They range from CanopyStyle's campaign and Hot Button Report—their push for brands to implement policies that eliminate wood-derived fibers from ancient and engagement forests. Supplier's piloting, investing in and scaling innovative alternatives to wood-derived feedstocks.

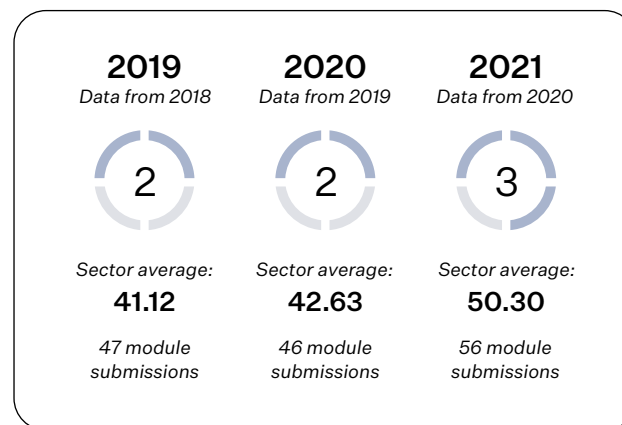
We need to see a significant reduction in GHG emissions and beneficial Climate+ outcomes by 2030, and manmade cellulosic fibers will be part of the solution.

We are seeing an increased commitment and number of brands setting targets to source FSC certified fibers. The next build on this would be getting certification in place from fiber to final garment. This is something we are working on at Textile Exchange and will be addressed through the production of our Unified Standard.

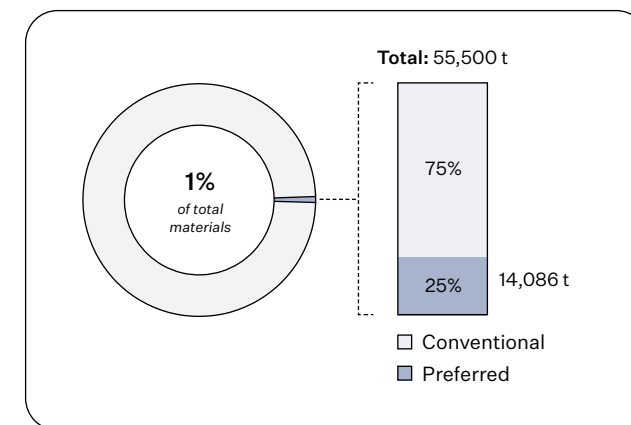




## Participant profile



## Wool portfolio



### MCI Wool Index has moved up to Level 3 (Maturing) banding.

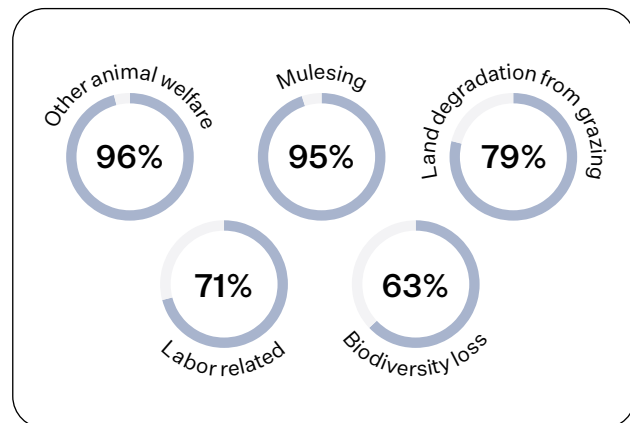
Wool comprised 1% of materials reported in the benchmark which is on par with the share of global materials production. To date, 1-2% of the world's wool supply is produced within a more sustainable wool program. This low share contrasts dramatically with the 25% share of preferred virgin and recycled wool reported to be consumed by the 2020 cohort of companies completing the wool module.

Over the last year, the MCI Wool Index moved up almost 8 Index points (18%), from a Level 2: Establishing to a Level 3: Maturing.

56 companies (37% of all participants) completed the wool module—up 19% from 2019 to 2021. The following analysis is based on the 56 companies that completed the wool module. Uptake volumes include all wool uptake data reported as part of a company's material accounting, totaling 98 companies.



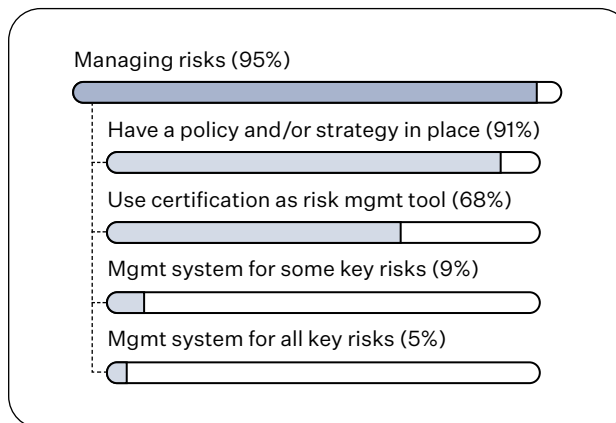
## Top five risks



**Animal welfare is a key concern for wool users followed by grazing and land use.**

Mulesing and other animal welfare risks continue to top the risk list. Wool users also have on their radar labor-related risks and animal grazing, particularly in high-risk geographies or landscapes, where there are potential threats to biodiversity.

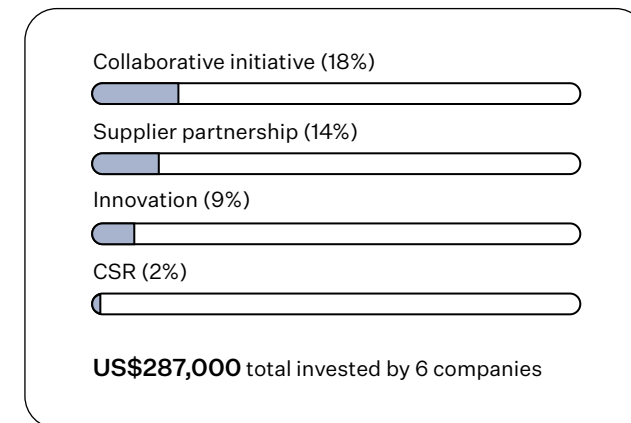
## Risk management



**More companies are taking steps to manage risks related to sheep farming and wool production.**

Over the past three years, the number of companies formalizing policies/developing strategies and using certification to mitigate risks associated with their wool use has increased by 24% and 20% respectively. The Index has seen the number of companies not managing wool risk decrease from 30% to 5% over three years. These improvements reflect major changes in awareness by wool users.

## Investment



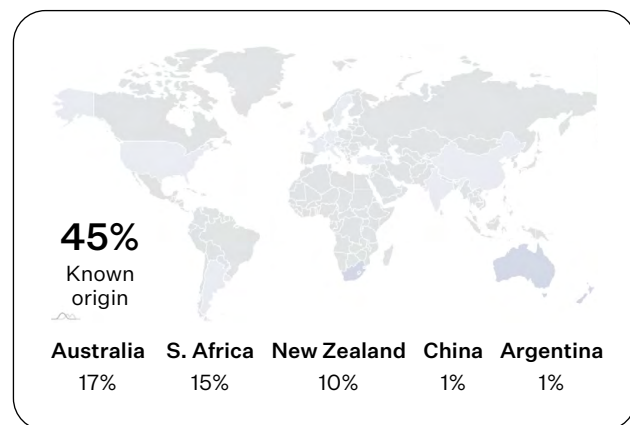
**Investment is on too gradual of an incline and needs to be accelerated.**

Investment levels declined in 2020, following steady growth in 2018 and 2019. This may have resulted from companies stalling or reallocating funds due to COVID-19. Collaborative initiatives and supplier partnerships are the most common forms of investment for wool programs.

A range of training has been undertaken over the last three years with all parts of the supply chain from farms to makers, spinners, and mills, to garment factories as part of our RWS rollout, including the launch of a new program to support local garment manufacturing.



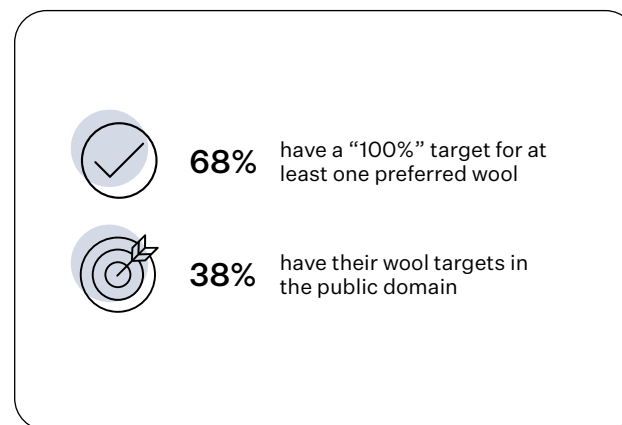
## Transparency



**Country of origin, a step towards understanding landscape risks, is at 45% visibility.**

As companies increase their sustainability work in wool there will be an increase in transparency. For now, sourcing remains at 75% conventional wool which means country-of-origin is less likely to be a top consideration for brands and retailers. There is more work to be done. From the volumes that were traced back to source, the top five sourcing countries in 2020 were reported to be Australia, South Africa, New Zealand, China, and Argentina.

## Targets



**Companies scale their ambition to source preferred wool.**

Showing promise for the future, 33% more companies have set measurable targets for “100% uptake of preferred wool” in 2020 over 2019. 11 companies have achieved 100% preferred wool and 27 are at 50% or more of their total wool use.

## What companies are saying

### Risk Mitigation:

A significant portion of our wool is from the Ovis21 network, a Savory Land-to-Market supplier. The wool growers' land is verified for showing continuous improvement in ecological health using the EOv (Ecological Outcome) methodology. Through carbon insetting project with Native Energy, carbon sequestration is measured as a result from transition to regenerative practices.

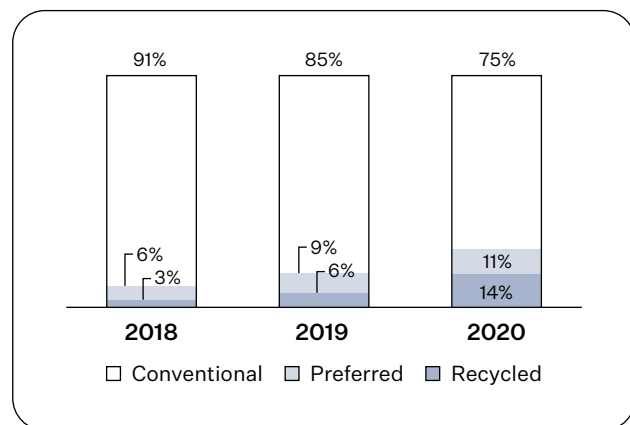
### Transparency:

In some cases, country of origin verification allows us to know the exact wool supplier, but often times the collector gathers wool from multiple farms within a region before shipping to a wool processor, meaning that while we may know the country/region of production, we have not yet mandated knowing each farm which produced the wool. We rely on our materials verification policy and our relationships with certifications like RWS, New Merino, ZQ, and GOTS to verify that animal welfare is being upheld at the farm level.





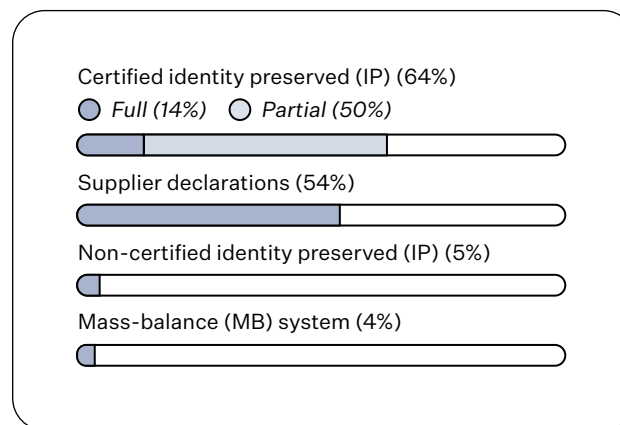
## Progress to preferred



**Wool volumes down, possibly hit by COVID-19, while share of preferred continues to grow.**

Both preferred renewable wool e.g., Responsible Wool Standard (RWS), ZQ certified, and recycled wool volumes are reported to have increased. While still a small part of the overall volume of wool portfolio (at 25%), this growth in preferred and decline in conventional is sending a strong signal to the industry. A point of interest is the share of recycled wool volumes now at over 14% of wool module participants' overall wool use.

## Verification

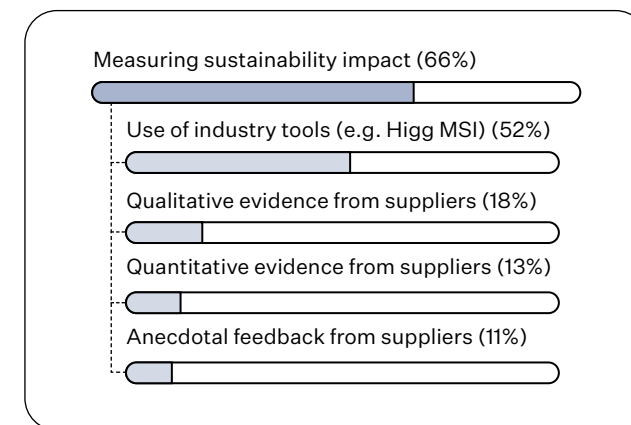


**As preferred wool use grows so does certification.**

The use of verification programs associated with preferred wool have increased over the past three years. Certified identity-preserved programs such as the RWS for virgin preferred wool dominates the certification options, and GRS for recycled. Overall use of certification has increased by 12% from 2018 to 2020—although as with all chain of custody, the challenge is to get from partial supply chain coverage to fully certified.

To assess compliance against our requirements we ask for import documents and documents to demonstrate COO. If Australian, we ask for a non-mulesed statement. Suppliers are required to sign our animal-derived materials policy which stipulates our requirements for non-mulesed wool.

## Impact monitoring



**Impact monitoring is more relevant now than ever before.**

Overall, impact monitoring of wool increased by 20%, with a considerable rise in the use of industry tools (up 26%) between 2018 to 2020. Alongside industry tools, companies are gathering evidence and anecdotal feedback from suppliers—potentially for case studies and communications.



## Moving forward with Anna Heaton, Textile Exchange's Animal Fiber and Materials Lead

### What's coming up for animal fibers?

AH: Our vision is that by 2030 all animal fibers will be regenerative, driven significantly by Responsible Animal Fiber certification (soon to be encompassed) and/or principles. To achieve this goal there will need to be significant increased uptake of “preferred” certification in all viable farming regions in the next few years.

### What will be the major hurdles or challenges to reaching this vision?

AH: Carbon tunnel vision is a concern. Carbon is one of the key indicators for our Climate+ strategy but if brands focus solely on carbon, it can lead to actions at farm level that negatively impact on other key climate indicators. One issue is that carbon accounting only looks at change from the point of the assessment: farmers that have been working to restore native habitat for years do not get any recognition for this in carbon accounting. Natural Capital Accounting does a better job of accounting for existing habitats and biodiversity on a farm as well as carbon and financial indicators. It's more expensive to do, but the outcome is a more holistic overview of the farm and the environmental outcomes it delivers.

The vision for animal fibers to be regenerative also requires us to more clearly define what regenerative animal fibers must deliver and to understand the change in impact. Work is ongoing in this area as we transition our standards into one unified standard, and work to provide improved data for LCAs for both cashmere and wool.

### How is Textile Exchange and its Responsible Wool Standard (RWS) helping the industry get there?

AH: One development for our Responsible Wool Standard (RWS) has been greater engagement with certifications that are primarily focused on food. Many fiber animals have a dual use for food and fiber and there is a lot of overlap between farm assurance standards for meat and Responsible Animal Fiber (RAF) standards for fiber. The Textile Exchange Regenerative Agriculture Landscape Analysis recommended that regenerative agriculture conversations are framed around food and fiber, allowing the conversations on regenerative land management to be taken up more widely.

The development of the Unified Standard will build on the existing Responsible Animal Fiber standards to include requirements that deliver Climate+ benefits.

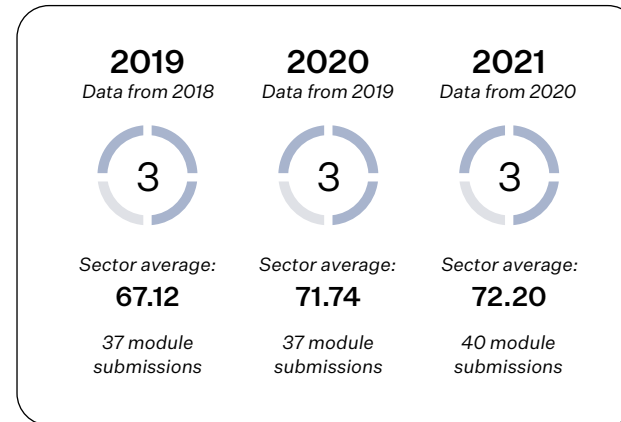
We are also seeing more interest in coarser wools certified to the Responsible Wool Standard (RWS); those used for home textiles rather than apparel. This is a very positive development and has overlapped with the introduction of the Communal Farmer Group module for certification. The Communal Farmer Group module uses a modified audit protocol to make meeting the RAF standards more accessible. But farmers in this category still need on-the-ground support to meet requirements. Brands that are prepared to support this model can link with NGOs and others already working on the ground to help wool, mohair, and alpaca farmers gain certification.



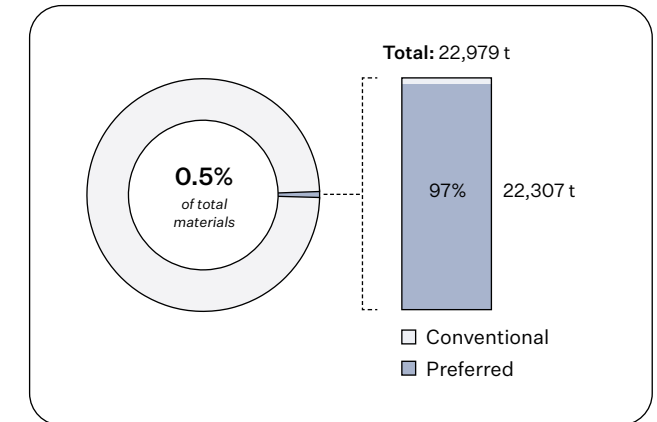




## Participant profile



## Down portfolio



### MCI Index for Down breaks into a Level 3 (Maturing) banding

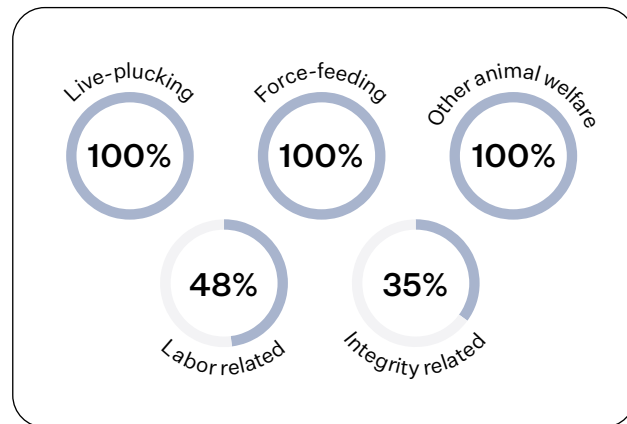
Down comprised 0.5% of materials reported in the benchmark, and almost all (97%) was sourced from a preferred program. While global production shares are similar, the preferred portion (mostly certified virgin down) contrasts dramatically, with more sustainable down certification at only 4% of production.

The MCI Down Index has improved each year, moving up through the Level 3: Maturing band.

At 40, slightly more companies (31% of all participants) completed the down module in 2021—an increase of 8% from 2019/2020. The following analysis is based on the 40 companies that completed the down module. Uptake volumes include all down uptake data reported as part of a companies materials accounting, totaling 51 companies. Please note, the down analysis is derived from both duck and goose down and feather.



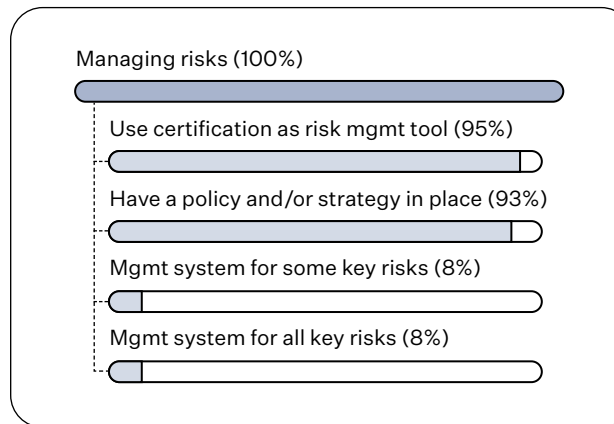
## Top five risks



### Animal welfare number one risk in down sourcing.

The overarching risk in down sourcing lies in the treatment of the ducks and geese, with live-plucking and force-feeding considered a top risk for all down module participants. Other risks rated in the top five are labor and integrity related.

## Risk management

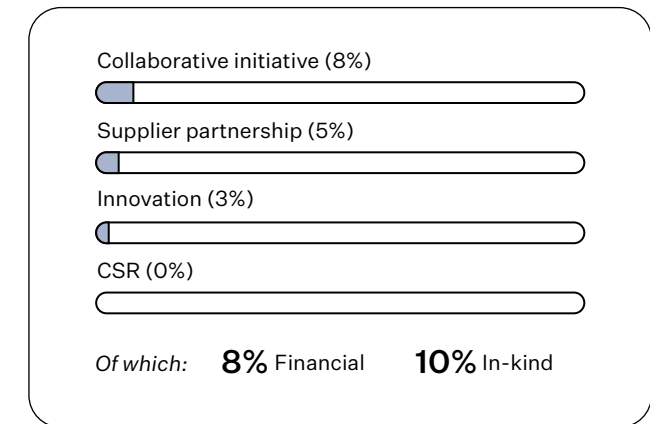


### Almost all participants use certification to manage down-related risks.

Over the past three years, our data reflects the high use of certification. Companies have developed animal welfare policies and have strategically transitioned to certified down use (predominantly the Responsible Down Standard and Downpass) to reduce the risk of animal welfare issues in their supply chains.

We work in short and transparent supply chains. We know our down supplier, and he knows his farmers. We only work with down from Europe, that comes from the Netherlands and Germany. We know these countries have strict animal welfare rules and we make sure the down is certified on animal welfare too.

## Investment



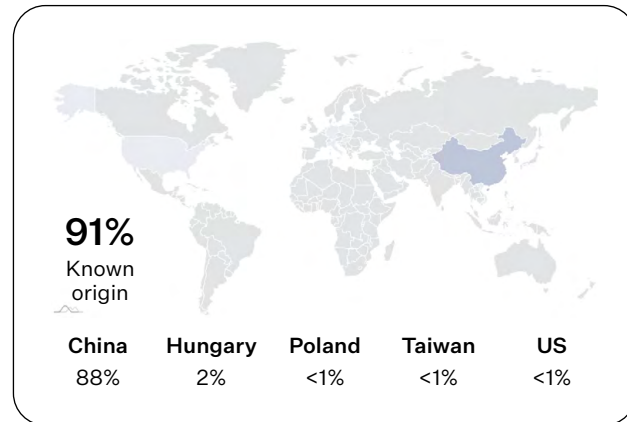
### Beyond certification, investing in down supply is limited.

Investment in the down supply chain is low, with only 13% of participants in 2020 making financial or in-kind investments—and investments in-kind are more frequent than financial. Where investments have been made it has been through collaborative efforts or directly into supply partners.

We have been investing in training throughout our supply chain, from farmers to down processors, and scaling up RDS uptake. This is all in kind, covering travel costs and time investment on our side.



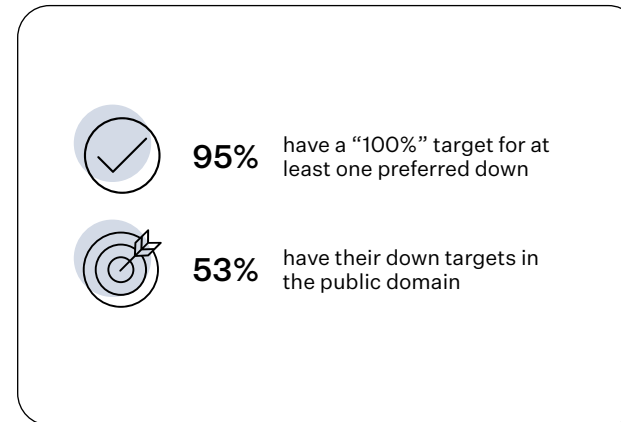
## Transparency



**Majority of down sourced can be traced to country of origin.**

Visibility of sourcing countries covers 91% of down. This figure closely reflects the volume of certified down used by down module participants (95% of uptake). However, exact locations of the farms are still opaque; only 13% have drilled down to a local level. China continues to dominate the down and feather market, increasing 12% over the three years. The other countries in the top five are Hungary, Poland, Taiwan, and the US.

## Targets



**Targets for 100% preferred down have been met by almost all participants.**

35 of the 40 down module respondents are at 100% preferred down with the remaining three at >50% and two at 100% conventional. These strong results are a credit to the companies and—at only 53% companies publicly disclosing—there is opportunity for more recognition.

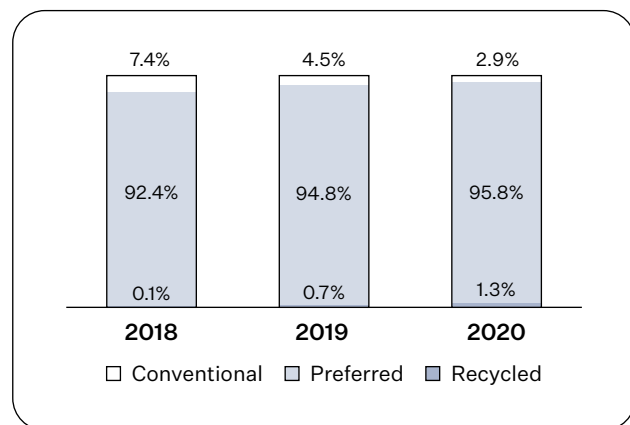
## What companies are saying

### Verification:

We buy all down from one supplier and require RDS declaration on an annual basis. Recycled down is a small component of our supply, but GRS is always required in that application. We rely exclusively on RDS and GRS.



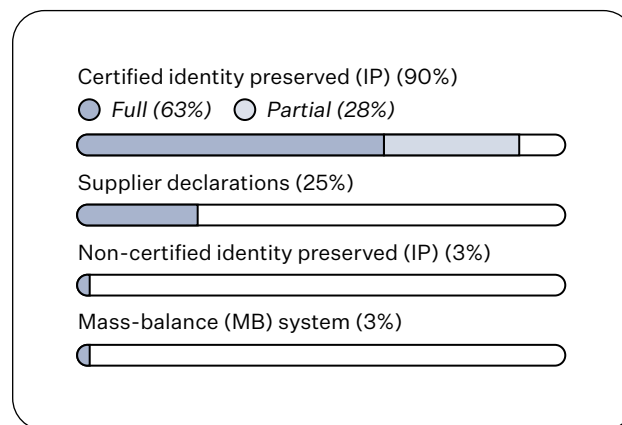
## Progress to preferred



**Down portfolios dominated by preferred and have been for some time.**

Companies have made progress towards sourcing more preferred down from 2018 to 2020—almost closing the gap completely. The preferred portion is dominated by preferred virgin down (RDS, Downpass, and a small volume of organic) however, companies have advanced on sourcing recycled down—still a sliver of the down portfolio but increasing from 0.67% in 2019 to 1.32% in 2020.

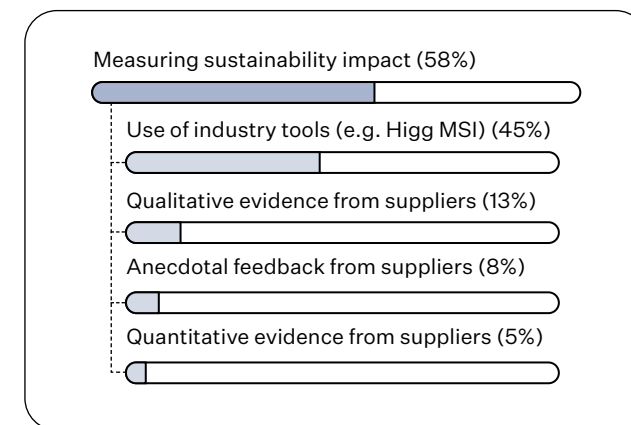
## Verification



**Certification of down supply matches uptake of preferred down.**

The dominant verification model used has been certified identity preserved (90%), which has increased slightly from 2018 (up 4%). RDS and GRS both provide strong chain of custody and can be used to label products providing full supply chain certification. Currently 63% are fully certified.

## Impact monitoring



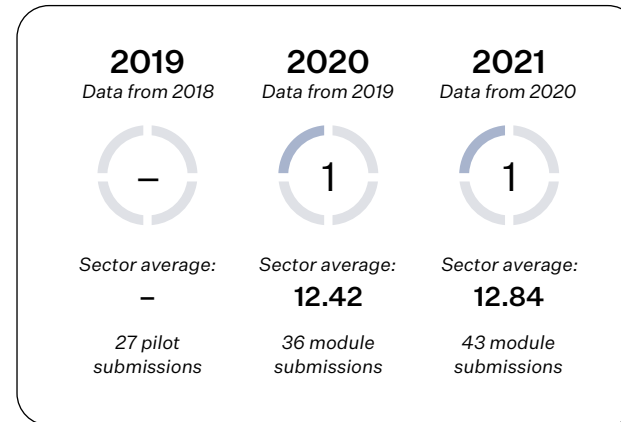
**Companies rely on industry tools to evaluate down impacts.**

For down, there is more focus on certification and less on impact measurement when compared with other materials, given the focus is on animal welfare. The majority (45%), up 21% over the past three years, rely on industry tools to measure and report; most supply chain-specific information showed a positive impact on sustainability.

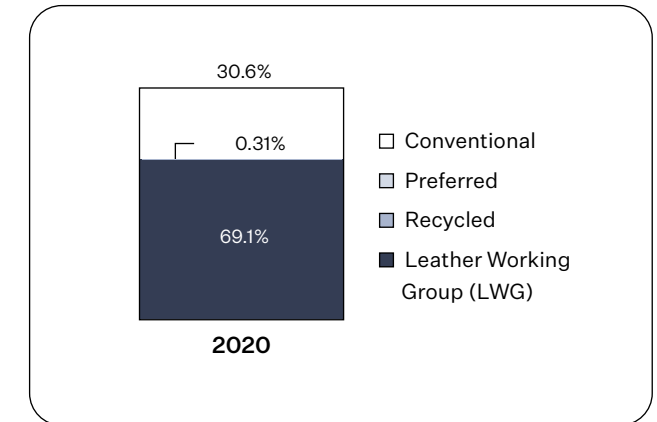
# Leather



## Participant profile



## Leather portfolio



### MCI Index for Leather in the early stages at Level 1 (Developing)

Leather volumes (measured in weight of fresh hides) reported through the benchmark represented approximately up to 3% of the global leather production in 2020 (over 12.5 million tonnes, see Preferred Fiber and Materials Market Report). Cattle hides were the most used type of hides with 49 of the benchmark cohorts leather reporting, on leather production. While percentages of leather from raw material sourcing programs (organic, recycled, etc.) were very small, almost 70% was sourced from Leather Working Group certified tanneries.

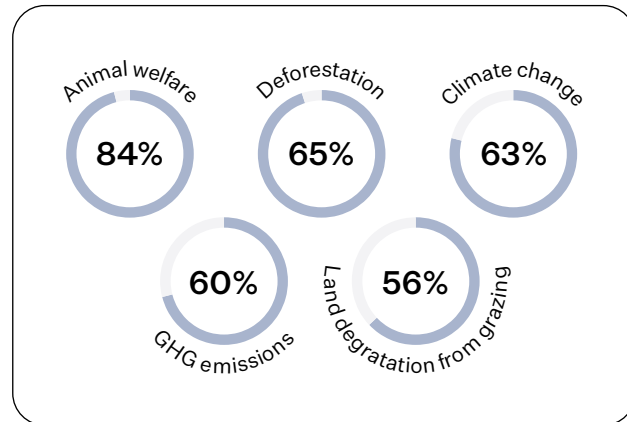
The MCI Leather Index is currently at a Level 1 (Developing). This considerably lower average (compared to other modules) reflects the limited options there are currently for leather programs (standards, certification at “Tier 4”) and challenges in connecting back to origin, as much as it does the early stages of company management and performance of their leather supply. As a high-risk material and a priority for Textile Exchange as well as many brands, we will see more activity in the leather space.

43 companies (28% of all participants) completed the leather module—an increase of 19% from 2020 to 2021. The following analysis is based on the 43 companies that completed the leather module. Uptake volumes include all leather uptake data reported as part of a companies materials accounting, totaling 60 companies.





## Top five risks

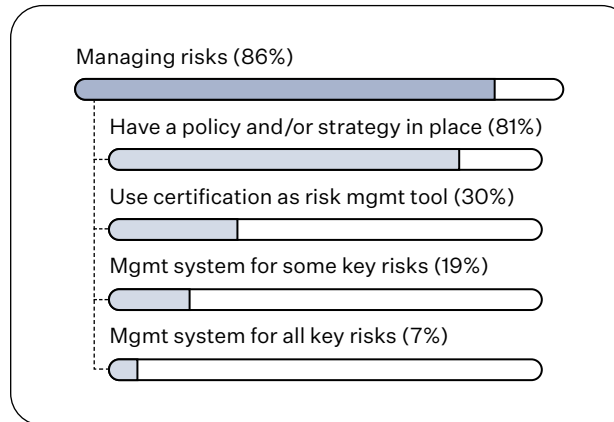


**Animal welfare followed by deforestation remain the top risks.**

Animal welfare and deforestation are the most highly-rated risks for leather. Deforestation (and land use change) are escalating up the risk list, due to the connection to climate change and biodiversity loss. This concern is being converted to legal frameworks by governments and policy makers to help address the problem—which will further increase the risk to companies.

Our vision is to enable a world in which all aspects of the leather value chain are environmentally and socially responsible, economically viable, and promote animal welfare. We were present at the UK Round Table for Beef Sustainability, working to identify a road map for the UK to meet the European Round Table for Beef Sustainability agreed targets.

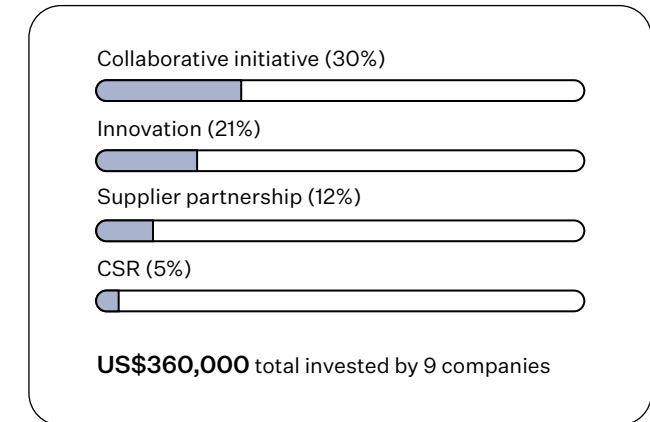
## Risk management



**Progress has been made on formalizing risks into policy.**

In 2020, 86% (up 8% from 2018) of participants have started managing risks associated with leather sourcing. 81% have developed animal welfare and leather sourcing policies or strategies and 30% refer to the use of certification schemes. When it comes to certification, most companies are referring to their use of Leather Working Group (LWG) certification that starts at the tannery. Connecting back to the farm-level is complex and challenging, but there is genuine interest by companies and innovative work underway to enable the connection to be made.

## Investment



**Leather users are uniting for collaborative action and investment.**

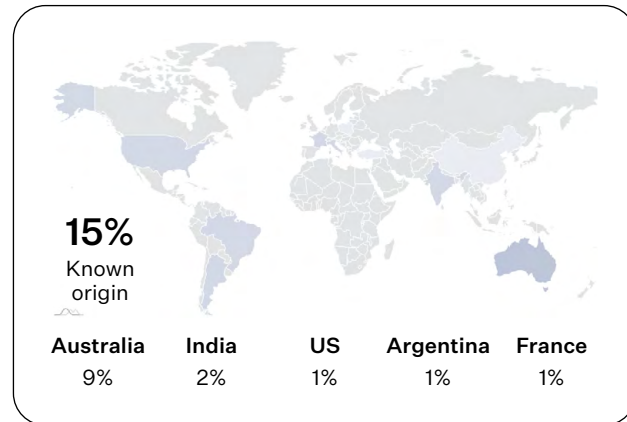
Leather module participants are investing in collaborative initiatives such as Textile Exchange's Responsible Leather Round Table, the Leather Working Group (LWG)—many towards the LWG Animal Welfare Group and ZDHC. There is some investment in innovation, such as recycled leather developments and leather alternatives. Some companies are also investing in their leather supply chains, including goat leather suppliers. The nine companies that shared financial information spent a total of US \$360,000 in 2020, with six of them making multiple investments in leather activities.



# Leather



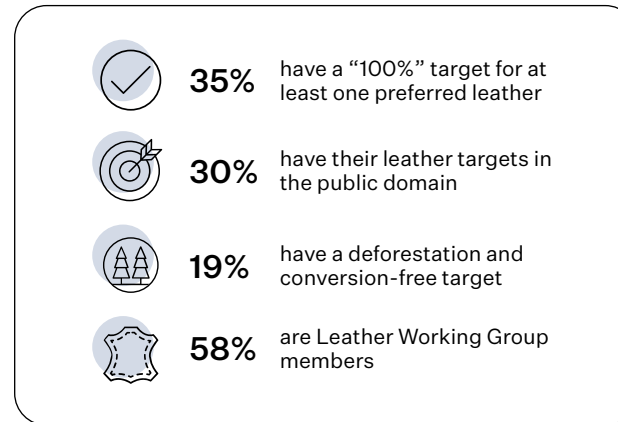
## Transparency



**Unlocking country of origin will be key to managing risk in leather supply chains.**

15% of leather module companies have reported transparency to country of origin for their leather products. Farm-level supplier mapping remains a challenge with only 9% reporting to have carried out this exercise. However, 72% of participants have mapped most of their leather supply back to the tannery. This work is in line with the direction and support offered by the Leather Working Group (LWG) and gives these participants a starting point for going further to farm location. Australia, India, US, Argentina, and France were the countries most cited as sourcing locations for leather products, and likely to be a combination of processors and feedstock origins due to the challenges mentioned earlier in tracing to farm.

## Targets



**Due to high risk, target setting for deforestation and conversion-free will be key for leather companies.**

More work is needed to agree a definition and an uptake target for preferred leather, and given the challenges in connecting to farm plus the nascent level of definition, “preferred leather” has been kept open-ended for companies. In light of this, 35% of leather module participants have set their own “100% uptake targets” and 30% have made them public. Uptake targets, as set by the company, include sourcing only from LWG certified, chrome-free. 19% have committed to zero deforestation (up 8% over the previous year) and 58% are Leather Working Group members (up 8% over the previous year).

## What companies are saying

### Investment:

We create financial obligations with our leather suppliers that give them long-term confidence in the relationship and in return support our carbon footprint, water reduction, and waste management programs..

### Transparency:

We do have a list of countries which our tanneries advise is the country of origin of the leather used, we collect this through questionnaires sent to the tanneries. However, we do not know the country of origin used at material level, only tannery level. We do not know at this stage the country share or share per animal type. We also understand that the tanneries each define country of origin differently which creates challenges with accuracy, complexity and transparency. Therefore, we cannot accurately complete the country share currently.

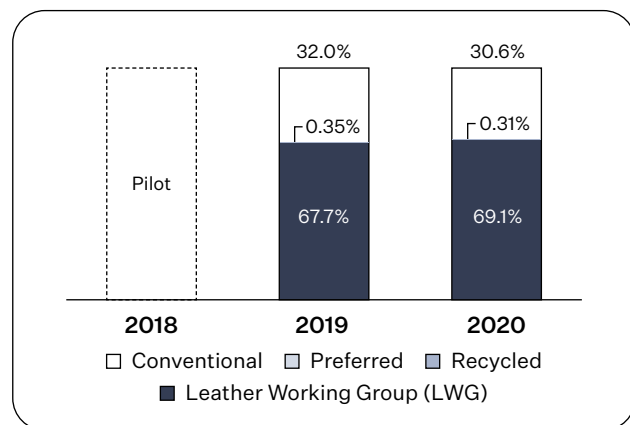
### Transparency:

By improving traceability at the tannery, we have been able to identify and visit a slaughterhouse which supplies hides to one of our key leather suppliers.

# Leather



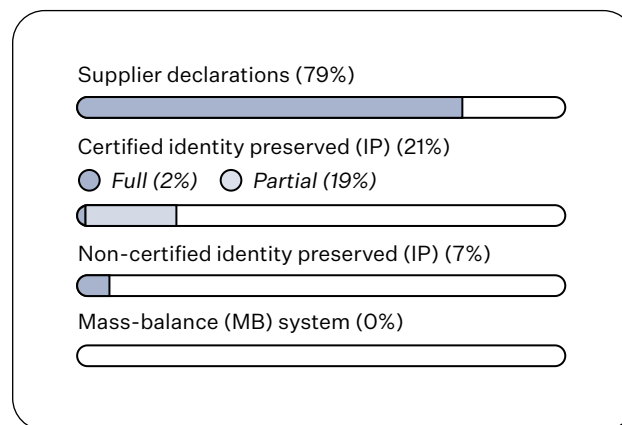
## Progress to preferred



**Sourcing leather from LWG certified suppliers is an important stepping stone for companies.**

Currently “preferred leather” includes organic, recycled and Land to Market certified. However, we have allowed volumes of leather passing through LWG suppliers as a “half-way base” until other programs at farm shape up and become viable options. Currently, 11 companies have achieved 100% LWG status and a further 18 companies are over 50% of their leather supply sourced from LWG suppliers.

## Verification

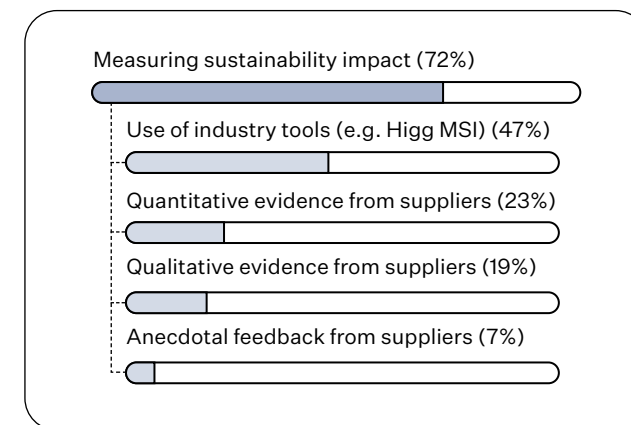


**Companies are dependent on supplier declarations for assuring leather status.**

Supplier declarations (79%) are the most common form of “verification” of leather meeting brand/retailers leather requirements. A further 21% of participants reportedly use identity preserved (IP) systems, mostly OCS for organic and GRS or RCS for recycled. The use of non-certified IP systems such as digital or blockchain-based systems are shifting from pilots and trials into more scalable systems. But these types of platforms are still nascent and ultimately depend upon good data being collected.

We run on-site traceability verification and animal welfare assessments together with our NGO and supply partner. We use a traceability system to secure the material down to direct farm.

## Impact monitoring



**Industry tools are useful for measuring generic impacts in leather, but more work needed to prove zero deforestation.**

47% of participants rely on industry tools to measure sustainability impacts related to the use of leather. The industry tools most frequently quoted are the Sustainable Apparel Coalition’s Higg MSI, and results provided by the LWG on certified facilities.



## Moving forward with Nicole Lambert, Textile Exchange's Leather Manager

**Nicole, what should companies prepare for when it comes to sourcing leather?**

NL: Deforestation and land use change have long been on the risk register for leather sourcing for some time now, alongside animal welfare of course. However, the deforestation agenda is ramping up. New legislation is being developed requesting better due diligence from companies purchasing commodities at high risk of being associated with deforestation. Leather is included in the draft scope of the European Deforestation-Free Regulation proposal. The European regulation proposal is currently the most advanced but similar regulations are already being developed by other countries (e.g., the United Kingdom and the US) and more are expected to follow.

**To prepare for tighter regulation, what does the industry need to do?**

NL: The industry is expected to have a better knowledge of bovine leather supply chains and will be required to provide robust due diligence to ensure that supply chains are not associated with deforestation.

Bovine leather supply chains are long and complex and there is currently a lack of transparency down to all levels of cattle farming—and this is confirmed through the results of the Material Change Index. Deforestation is continuing at high rates in High Value Conservation areas and its impacts on climate change, biodiversity and people are alarming. It is urgent to stop deforestation and investing immediately at the farm level in high-risk areas is an

effective way to address the issue. As an example, Textile Exchange has developed the Leather Impact Accelerator (LIA) Impact Incentives program, enabling brands to connect directly to cattle farmers and incentivize them to preserve their forests. For more information on LIA [visit our website](#).

**How can the Benchmark support this urgent and important work?**

NL: In the Transparency section, the benchmark captures a company's progress towards transparency and traceability. Through the benchmark, the company will be able to track its progress towards fully mapped supply chains down to all levels of farming and compare its progress against its peers. The CFMB also captures investments made in leather supply chains and will capture investments made to tackle deforestation.

Textile Exchange has developed the Leather Impact Accelerator (LIA) Impact Incentives program, enabling brands to connect directly to cattle farmers and incentivize them to preserve their forests.

The more companies take part in the benchmark and share critical information the more clarity we all have on the progress, barriers to success, possible solutions, and—critically—the benchmark helps provide the accountability our industry needs to prove it's part of the solution.

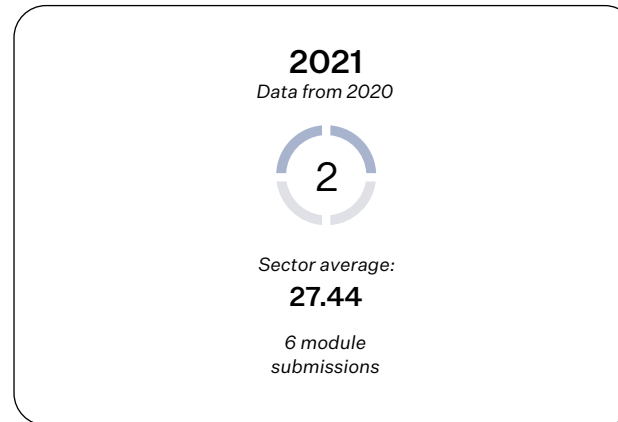




# Other Materials: Cashmere



## Participant profile: Cashmere



### Other Materials

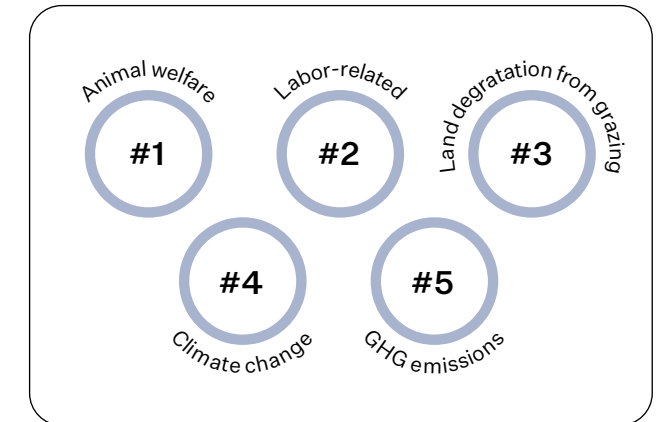
Alongside the option to completed the dedicated material modules, such as cotton or polyester, there is the option to select the “other material” module and self-select a material important to the company’s business.

In the 2021 survey, 25 companies reported on an additional material using this option. This was up from 9 companies the year before.

Between them, these 25 companies reported on ten materials in the following material categories:

- **Animal fibers:** Cashmere, Llama, Silk
- **Plant-based:** Natural rubber, Flax/Linen, Hemp, Kapok
- **Synthetics:** Elastane, Acrylic, Polyurethane (PU)

## Top five risks



**In this Extra Insights, we take a closer look at Cashmere—the most popular fiber in terms of other materials reported.**

Cashmere goat herding and farming depends on healthy grazing lands and other natural capital such as healthy soils, a reliable supply of water, energy, sunlight, dependable weather/seasons, and a stable climate for its ongoing availability. It also depends on nature’s contributions to people for pollinating native pastures and controlling pests and disease.

Cashmere comes with a host of sustainability issues that impact the areas of animal welfare, the environment, and societies, particularly in China and Mongolia where 60-70% is produced.

For information on preferred cashmere programs see the Textile Exchange 2021 [Preferred Fibers & Materials Market Report](#) (page 46 and 47).

# Other Materials: Cashmere

## Risk Management

Most (84%) of cashmere module participants have a policy or strategy in place that outlines their sourcing sustainability requirements, including the use of regenerated cashmere fibers, and 67% use certification as a tool for managing risk.

In a complementary effort to increase efficiency that reduces pressure on the already degraded areas of the Gobi region, we use cashmere fibers from production offcuts thanks to an innovative process to recover scraps, which are sorted by quality and color and then transformed into regenerated cashmere fiber.

## Targets | Progress to Preferred

67% of cashmere participants have set measurable targets for more sustainable cashmere e.g., sourcing from certified programs. As a luxury, high-value fiber, volumes of cashmere are relatively low. The majority is virgin fiber but with some use of recycled.

We have made a commitment to source 100% of the cashmere used in our sweaters and non-apparel products from certified responsible sources. Targets are set for 2025 and 2030, where we are making incremental progress year on year.

## Investment

Cashmere respondents are aware of environmental risks such as desertification from over grazing, and a third of companies are investing in their cashmere growers and in sourcing regions. Investments spanned from direct supplier investment to landscape conservation projects, usually in collaboration with experts and other stakeholders.

We continued supporting our flagship cashmere program in the South Gobi in Mongolia. The program is especially focused on rangeland health, livelihoods and animal welfare.

## Verification

Two-thirds of respondents use supplier declarations and/or third-party and/or non-certified traceability. The use of certification includes the Good Cashmere Standard (GCS), the Sustainable Fiber Alliance Standard, and the Global Recycling Standard (GRS) for regenerated cashmere. A third of companies are yet to implement a verification system.

We have not looked into a full mapping or chain of custody of cashmere, and we believe our sourcing took place before the launch of the fully fledged GCS certification, so we have marked this cashmere as conventional.

## Transparency

Half of the respondents have good transparency of their cashmere supply geographies and down to site locations. Key supply countries are Mongolia and China. Nepal was also reported as a sourcing country.

We have visibility to the country of origin for the majority of our cashmere and can report by article. However, we do not currently have the ability to report on share volume at the country level. We plan on updating our current fiber uptake report to have this level of insight for next year's benchmarking reporting cycle.

## Impact Monitoring

Half of responding companies have started monitoring their impact, mostly using industry tools. However, a few companies are actively engaged in monitoring impact on the ground through both quantitative and qualitative data collection.

GRS Certification is the only way that we are managing risks at this time. We do not have another, more strategic hands-on means to measure and manage impacts aside from our adoption/sourcing of certified materials.

# Other Materials: Cashmere

## Moving forward with special guest Liz Hershfield, Head of Sustainability, J.Crew Group, and SVP Sourcing, Madewell

### Why cashmere has become an important sustainability topic for J.Crew to get behind?

LH: Cashmere is an important fiber for J.Crew. That's why we are committed to supporting farmers, herders, and the organizations that are making meaningful changes on the ground to produce cashmere in a responsible way. We are proud to be the first US retailer to join two important organizations addressing cashmere sourcing: the Sustainable Fibre Alliance (SFA) and the Good Cashmere Standard (GCS).

### Can you give us a whistle-stop tour of the work you are doing in cashmere, your goals, and your progress to date?

LH: In February 2021, J.Crew became the first U.S. retailer to commit to using certified responsible cashmere in all its cashmere sweaters and non-apparel products. We do this by certifying our cashmere to the Good Cashmere Standard (GCS), an independent standard for sustainable cashmere, developed by the Aid by Trade Foundation. Their aim is to improve the welfare of cashmere goats, the lives of farmers and farming communities, and the environment in Inner Mongolia. We are also committed to supporting the broader cashmere industry and are active members in the Sustainable Fibre Alliance (SFA), and support their efforts to ensure animal welfare, advocate for communities and restore grasslands in Mongolia.

### What inspires you most when it comes to your work in cashmere?

LH: We're honored to share that in 2020, we founded a program with the Sustainable Fibre Alliance to support over 1,000 female herders across Mongolia. The program offers financial knowledge, economic prospects, and techniques for elevating quality (and adding value) to their products.

We are committed to supporting farmers, herders, and the organizations that are making meaningful changes on the ground to produce cashmere in a responsible way.

The Cashmere Herders Women's Empowerment Project is going into its third year and has empowered over 1,000 women (and their households) of SFA-registered herding cooperatives in the South Gobi of Mongolia. The women are trained on how to better negotiate trades and contracts, handle cash, make decisions, and secure higher economic returns for their cooperative. It's amazing to see the impacts that this program has had on the lives of the women and their families, as they are both able to create financial safety nets and are integrated into the decision-making structures of their communities.





# Extra Insights

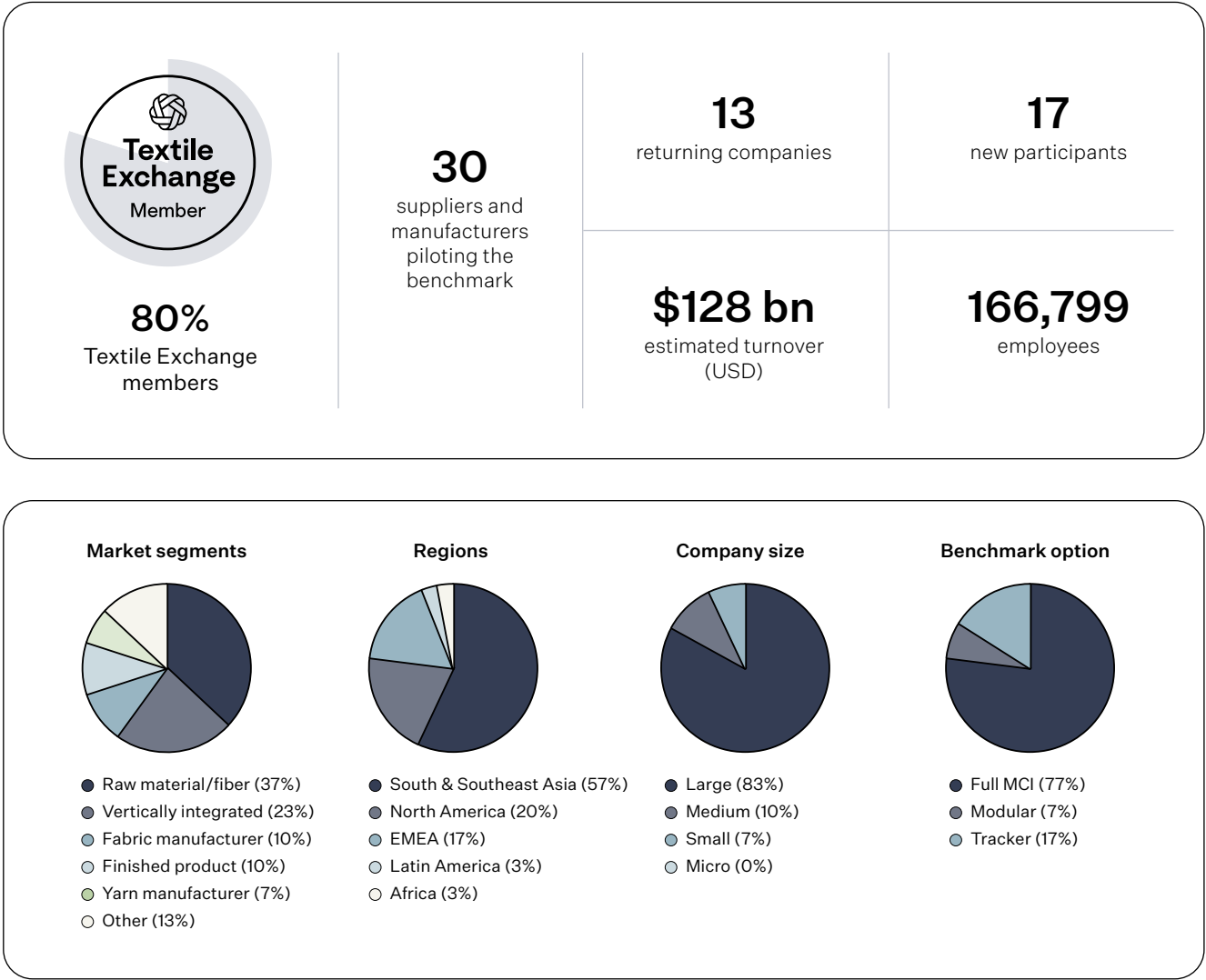
# Supplier Pilot in Second Year

When it comes to Material Change, everyone has a role to play. While retailers and brands have participated in the Material Change Index (MCI) for several years now, we recognize that suppliers and manufacturers are influential in driving the agenda and not simply responding to it. And so, building on the efforts of the past seven years, we developed and piloted the Suppliers & Manufacturers benchmark in 2020 to support material change across the entire textile value chain.

In its second year of piloting, the Suppliers & Manufacturers benchmark created an opportunity to gain feedback from a broader cohort of suppliers and manufacturers representing a cross-section of the industry and specializing in different materials and manufacturing processes. We also welcomed the deeper learnings from returnee companies.

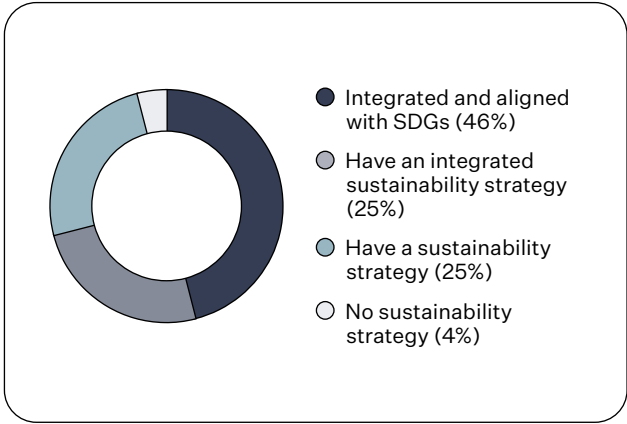
This year we saw increased participation with 30 companies taking part—up from 16 in the initial pilot. 23 participants completed the full MCI survey, five completed the Progress Tracker, and two companies completed the modular survey, focusing on a select fiber or material of their choice. A full review was conducted of all surveys submitted. The second year of the pilot provided another opportunity to understand the experience of suppliers and manufacturers while ensuring that as the program develops it does so in a manner that is fit for purpose.

The following Extra Insight is themed around the Sustainable Development Goals results and shines a light on the work suppliers are doing to align their strategies with the all-important SDGs.



# Supplier Pilot in Second Year

## Materials strategy



**Almost half of respondents are aligning strategy with the Sustainable Development Goals.**

Of the 24 companies that completed the strategy section, 23 have a materials sustainability strategy. 46% of respondents report that they are aligning their materials sustainability strategy with the Sustainable Development Goals.

We aim to reduce our synthetic fibers usage and become a fully circular garment producer before 2030. We source cellulose-based, recycled (post-industrial, post-consumer) fibers in the fabrics that we use in production. We conduct sustainability seminars together with our customers to spread the knowledge and have an impact on their decisions.

## Priority SDGs

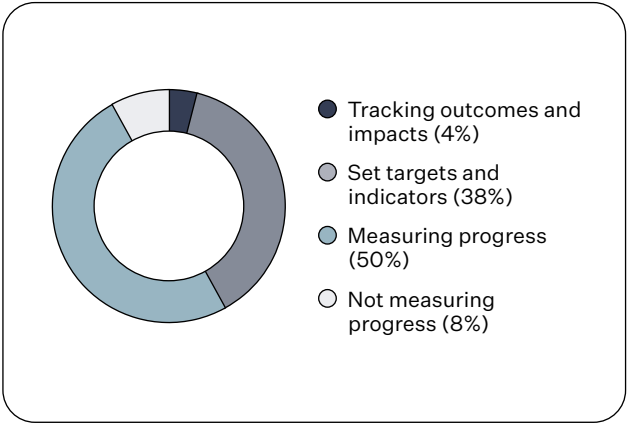


**SDG 12: Responsible Consumption and Production tops the priority SDG list for suppliers.**

Priority SDGs for suppliers are Responsible Production, Climate Action and Land Use. Respondents also signalled other global commitments (beyond the SDGs) as important, with 63% (15 of the 24 respondents) being a signatory to one or more global commitment, most commonly the UN Global Compact (29%), followed by the Science-Based Targets initiative (25%) and the UNFCCC Fashion Charter for Climate Action (21%).

Our strategic roadmap for the entire textiles business, is aligned according to UN SDGs.

## Progress towards SDGs



**Half of respondents are measuring progress towards the SDGs.**

Suppliers and manufacturers are not only aligning and setting priorities but 50% are actively measuring progress. There is opportunity to further track the (expected) outcomes and impacts related to the SDGs, with only 4% (one respondent), currently addressing this.

Our sustainable and ethical vision consists of a material sustainability strategy which is integrated with our overall company sustainability strategy and aligns with the SDGs.

# Supplier Pilot in Second Year

## Moving forward with special guest Claudia de Witte, Sustainability Leader, Textiles, Eastman Chemical Company.

### What is your vision for the future?

CdW: Our vision is to make sustainable textiles accessible to all. We recognize our responsibility to participate in positive change and are contributing to the achievement of the United Nations SDGs. We launched our Naia™ Sustainability Goals in 2020 and the SDGs continuously guide our efforts in three critical impact areas that mitigate climate change, mainstreams circularity, and cares for society.

### Why did you decide to take part in the supplier’s pilot?

CdW: At Eastman Naia™ we believe that collaboration and transparency are essential to creating a healthier industry that we all desire. The Textile Exchange supplier benchmarking pilot is an exemplary industry tool to enhance understanding as to the industry sustainability journey and a platform from which we can spring from to innovate and further improve.

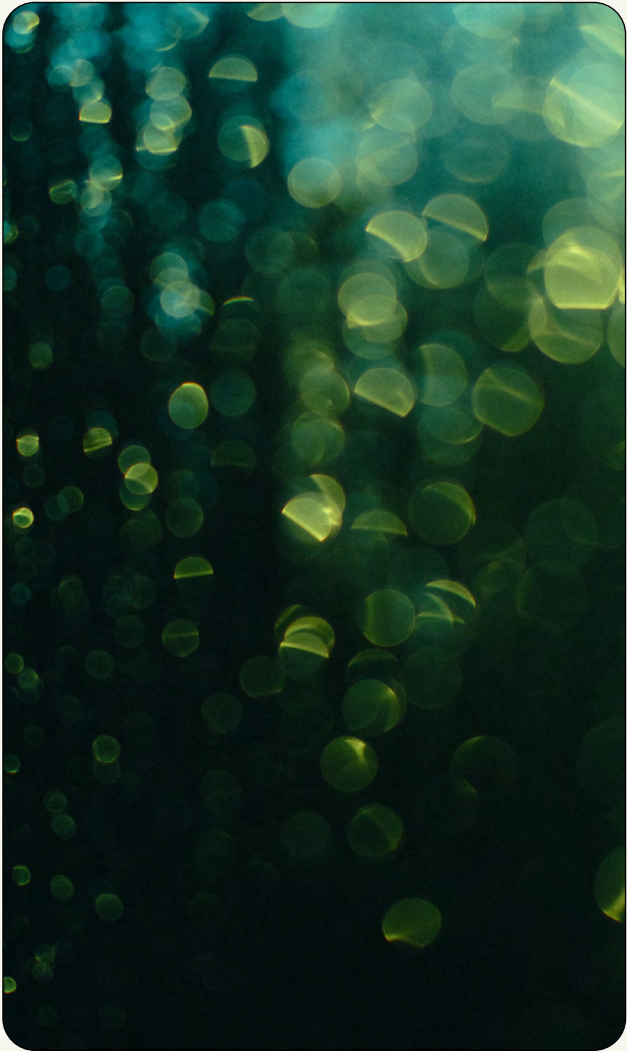
### What are the key benefits of the benchmark for manufacturers and suppliers?

CdW: From an industry perspective, this is important. For individual manufacturers and suppliers, this tool will help them benchmark their performance versus the industry and identify the areas of for improvement and future development. It will share best practices and raise the sustainability bar for other manufacturers and suppliers across the globe.

The SDGs continuously guide our efforts in three critical impact areas that mitigate climate change, mainstreams circularity, and cares for society.

### What were your biggest learnings from taking part in the benchmark and what would you like to see happen next?

CdW: Looking at the survey questions, it was a confirmation that we are on the right trajectory and have a holistic and comprehensive sustainability strategy in place. We are keen to learn more about our results, leverage our scorecard and organize deep dive sessions internally to analyze the results. This will trigger further dialogues on innovation and future programs.



# COVID-19: A Year Disrupted

## What we asked

2020 will always be associated with the onslaught of the global pandemic, which has had an undeniable impact on businesses. It will be remembered as a “pause” year in many ways, yet one that saw the resilience of people, with many in our industry rising to a new level of humanity and imagination. One that is likely to be preparing us for, sadly, a future of increasing uncertainty, climate-related shocks, and other COVID-19 style calamities.

In the MCI survey this year, we added a couple more questions because we wanted to understand the impact of the pandemic, particularly when it came to sourcing preferred materials.

133 participants responded to our COVID-19 questions, helping us make sense of what happened and what we can learn.

COVID-19 started an industry-wide, global discussion about fashion's calendar being out of sync with the real-world seasons. This resonated with our business, and we took the opportunity to revise our seasonal calendars and better align product launches with the season they are intended for.

– Juliette Hogan, Juliette Hogan Ltd.

## What we discovered

All questions and analysis are provided over the next few pages but here we have summarized the key themes.

- **Disruptions were across the board from supply planning to international logistics:** The pandemic disrupted most companies preferred materials strategies and sourcing processes in one way or another. However, there were a few companies resilient to the disruptions.
- **Cotton was the biggest pain point:** Cotton prices and availability, especially of organic, were by far the most widely acknowledged and seriously-felt materials-related sourcing challenge.
- **An entire supply chain dilemma:** While Tier 4 was reportedly the greatest challenge, the pandemic effected all parts of the supply chain from garment making to yarn spinning and fabric making.
- **COVID-19 may well have sped up new ways of working, innovation in business models and the switch to preferred:** Innovation—and usually with a sustainability angle—was triggered, accelerated and scaled, during the height of the pandemic, in ways that moved many companies from “ambition and ideas” to “investment and execution”.

What was truly rewarding from this exercise was the discovery of so many examples of agility and a deep “rethink” about business models that either came about in response to the pandemic or were accelerated. Potentially transformative changes included:

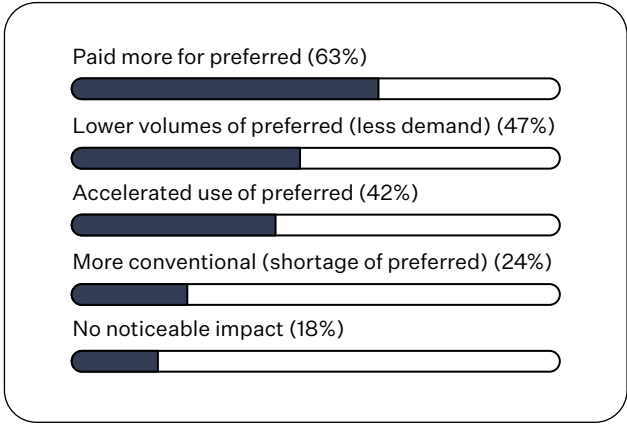
- **Rethink on materials and sourcing:** Some companies doubled down on their switch to preferred, others went further on their procurement commitments, and there were others returning to—or thinking about—sourcing closer to home (nearshoring).
- **Dramatic escalation of online solutions:** From online retail, buying and sampling platforms to 3D printing and traceability technology, our industry went digital.
- **Business model rethink amping up circularity:** From collections and seasonal cycles to entire business models, brands were slowing down. They were also flexing in different ways around supplier meetings to workplaces in order to compensate for travel bans and reduced in-person meetings. Adaptation may stick.

Some of these changes may dissipate or change as the risks associated with the pandemic reduce. Others will be permanent and only get better, and scale further. Hopefully, many will be game-changers for our industry.



# COVID-19: A Year Disrupted

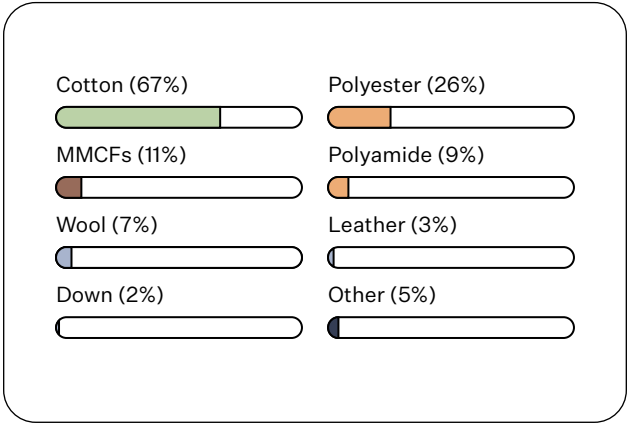
## Impact on sourcing



**Price was the biggest impact on sourcing preferred materials during the pandemic.**

The majority (63%) of respondents were affected by the higher cost of preferred materials, which resulted in a decreased use and the sourcing of more conventional alternatives. At the same time, there were companies that confirmed an increase in the sourcing of preferred and transition plans were accelerated. Around 20% of respondents felt no impact on their business.

## Materials impacted

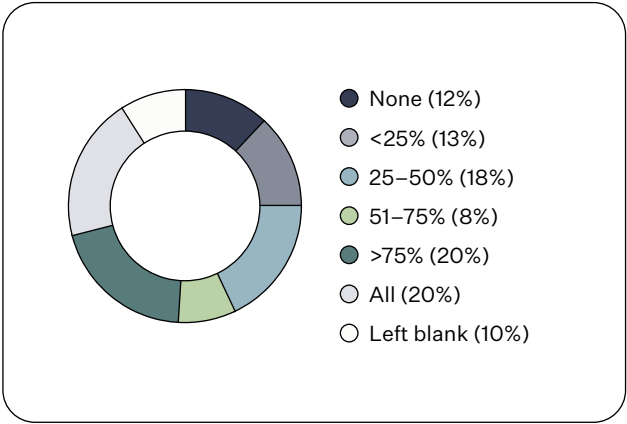


**Sourcing preferred cotton was hardest hit by the pandemic.**

Preferred cotton such as organic was by far the most challenging for companies (although most cotton supply was affected). Cotton was followed by recycled polyester and manmade cellulosic fibers.

It is likely that the high numbers of companies that did not answer this question will include companies that were not experiencing disruptions.

## Extent of impact

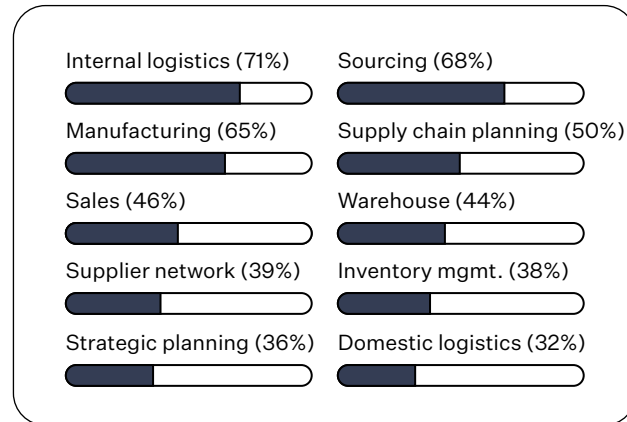


**20% of respondents reported disruption to their entire supply and 12% experienced no effect.**

Participants were divided in their answers to supply chain disruption, with 12% experiencing no disruption and 31% less than 50% of their supply chains. 20% of companies said all their supply chains were disrupted by the pandemic.

# COVID-19: A Year Disrupted

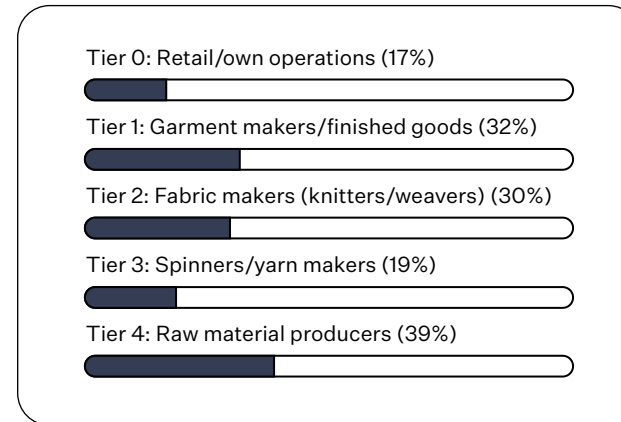
## Business areas affected



**International logistics was the business area most affected by the pandemic.**

Most materials-related areas, operations and functions within a business were affected by the global pandemic, with disruptions to international logistics, sourcing and procurement functions, and manufacturing operations being the most frequently reported. Other COVID-19 related impacts included delays or stalls to innovation such as circularity projects, trials or expansions.

## Supply chain tiers most impacted

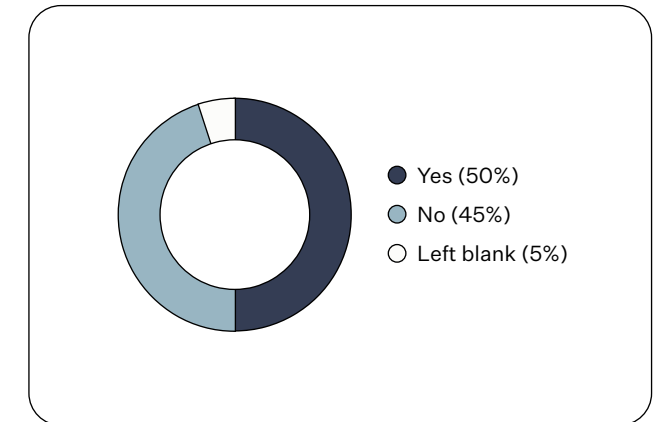


**Tier 4 (Raw Materials) was the greatest roadblock to sourcing preferred materials.**

The supply chain blockages were reportedly at the raw material level, but not surprisingly, disruption occurred right along the supply chain.

*Note: It is likely that the high numbers of companies that did not answer this question will include companies that were not experiencing disruptions.*

## Business model changes



**50% of companies said COVID-19 inspired new models and accelerated changes.**

The picture is a divided one. While many companies experienced great pains and disruptions to preferred materials strategies and programs during the 2020 business cycle, an impressive 50% of companies either took advantage of the disruption to fast track sustainability projects or otherwise found ways to innovate. Examples include accelerated expansion into digital platforms and use of 3D applications, increased work from home policies, measures to secure supply, return to “near-shoring” and circularity agendas. For insights and inspiration, read what companies told us in their own words in the appendix of this report.

# Looking Back, Moving Forward

## What's on the corporate radar?

Where do you see the industry moving over the next five to ten years?

1. **Preferred materials will have to be the “norm”.** We must have systemic shifts in production methods, smart tech, traceability, and we need to seriously scale.
2. **Goals for carbon will be the biggest game in town** and will require a “dematerialization” pivot. Waste will fuel the future and lighten the load on the land.
3. **Land stewardship will go further**, it will bust siloed commodity chains, but it will take some time to see the benefits on the ground.
4. **Governments and civil society must be part of the solution** and will shift the goal posts, at least in some geographies. New regulations will force the industry to step up and be accountable. Ditch the greenwash. Bring on social justice.
5. **There will be a shake out in the industry and/or a much greater divide between the good and bad.** Time will tell if the fast and furious will continue to appeal but our leaders are leaning in on purpose and impact.

I think that we will have amplified the waste to fiber model across many sectors, working to reduce landfill from bio-waste. We will have scaled these models to where they are not novel, but consistent and expected to move away from fossil fuel products.

Honestly, the supply chain will be smaller, leaving only the large and start ups. The middle range will either grow or disappear due to the economic current state.

My hope is that technology will be further leveraged in all capacities for transparency, for circularity, and for storytelling to connect consumers to the humanity of the supply chain.

It would be amazing to see land use shift to more regenerative, but I think we will only see single digit growth until after 2030 due to the length of conversion and the systemic plan of land use today that is largely political.

For transition of all, we need to gain consumer understanding that their purchases can positively impact climate change, and craft transitional language that allows a brand to support the transition in a grey space rather than the black and white of certifications today.

If we do not address the full breadth of the raw materials supply chain, there will be limited improvements. As of now, there are only a few key players truly shifting their supply chains. Realistically there is a vast apparel market, as of yet, unengaged. As companies with commitments continue to pursue limited supplies of preferred materials, we aren't seeing evidence that the entire market is shifting, simply that there is a squeeze at the high-performing end.

The efforts to radically scale up modest improvements will support a broader transition, bringing down the cost of preferred materials for all, making them accessible, and expanding beyond the well-known circle of brands with similar commitments at the progressive end of the industry.

Measurements are important to create actions and develop improvements. Collaboration is the only way towards success. Benchmarks need to be as much about learning how to improve as measuring improvements.

# Looking Back, Moving Forward

## How can we unlock the future?

What will be the challenges (risks), and the opportunities for sourcing preferred materials? What is most needed to unlock the opportunities?

Demand for preferred materials growing faster than supply is a risk for the integrity, agility, and scalability of certification, as well as contributing to price volatility. Inequality, geo and socio-political unrest, and the risk that change will only be initiated and taken seriously by a few leaders is problematic for scale and transformation. Existential threats of climate change and nature loss undermine the industry's resilience.

### Opportunities and solutions:

1. **Innovation and tech must be scaled**, particularly to support traceability and fiber-to-fiber recycling, taking nascent technology and infrastructure to the next level of implementation.
2. **Supply scarcity can be leveraged to accelerate innovation and investment.** Financing and financial flows need to align with sustainability outcomes.
3. **There needs to be a greater commitment to the transitional period.** This means, for example, transitioning in-conversion cotton to organic, and looking at the co-benefits associated with landscapes that deliver regenerative and restorative value.
4. **The industry requires multistakeholder collaboration and much wider communication.** This will result in increased engagement and empowerment.
5. **Legislation will speed up changes will be fundamental.**

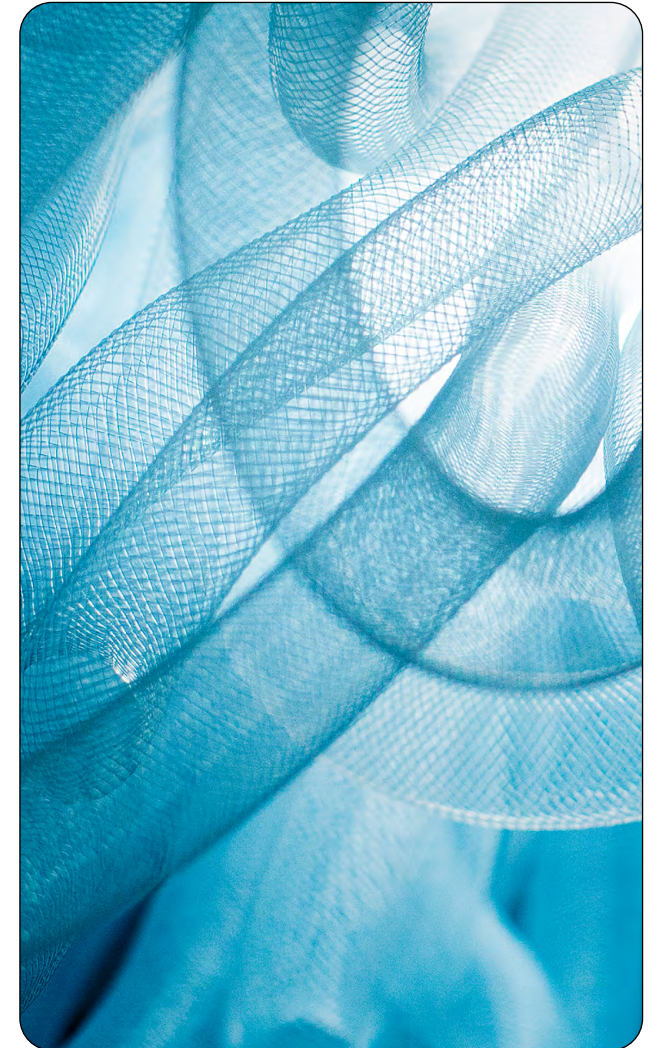
I think the need of the hour is a holistic landscape approach involving multiple stakeholders which should represent the policy makers, private institutions, businesses and the change enablers.

No one can make this happen in silos and time has come for a concerted call to action on the ground. Early movers will always have an advantage.

In terms of risk management, here are some of the key risks and challenges that might come into play in the future:

- Price volatility will continue (demand versus supply dynamics).
- Geo and socio-political risks specific to certain geographies or regions.
- New and upcoming legislations and specific market compliance requirements.
- End-to-end traceability of supply chains particularly to the farm level.

The industry needs to connect the dots in terms of a materials agenda versus a sustainability agenda specific to products and supply chains.





# Looking Back, Moving Forward

## How is benchmarking helping?

What were your biggest learnings from the past three years of benchmarking?

1. **Strategy.** An understanding of what needs doing in the materials space. Insights into company strengths and where to focus next.
2. **Measurement.** Methodologies and understanding what and how to calculate and quantify. Best available data is better than none, and only by practicing and putting in the processes can data be improved.
3. **Communications.** How to talk about this stuff with others in the organization and beyond to our wider stakeholders.
4. **A trusted yardstick.** The MCI is seen as an authoritative sense check on how companies are doing compared to others. But companies also appreciate being part of a community serious about driving change.
5. **Collective measurement.** The benchmark allows for collective industry metrics and progress tracking. Those involved are stepping up, engaging on challenging topics and role modeling for others by doing so.

The Corporate Fiber & Materials Benchmark has become the industry benchmark for sustainable raw materials. It is a very comprehensive evaluation that entails numerous inputs of information.

Our biggest efforts have been to make all our relevant teams aware of its importance and the synergies with our strategy.

We are now better prepared to provide insightful information and include this framework into our overall strategy that pursues transforming our industry.

My biggest learning is that what looks obvious, can actually be much more complicated. A sustainability journey is a long journey, it's not an easy journey, but it's the only one bringing the joy and the satisfaction to act while preserving our planet for the future generations.

Filling out the benchmark, shows us things that we could do more to move faster in our sustainability journey.





# Fundamentals

# Corporate Fiber & Materials Benchmark Program

## About the benchmark program

The Corporate Fiber & Materials Benchmark program is the largest peer-to-peer comparison initiative in the textile industry, generating the Material Change Index (MCI) among other benchmarks. It tracks the apparel, footwear, and home textile sector's progress toward more sustainable materials sourcing, as well as alignment with global efforts like the Sustainable Development Goals (SDGs) and the transition to a circular economy.

The program provides a robust structure to help companies systematically measure, manage and integrate a preferred materials strategy into mainstream business operations, to compare progress, and to transparently communicate performance and progress to stakeholders.

The MCI offers a quantified index ranking, including a company's position in relation to peers and the overall industry (universe of participants). It provides an indicator of progress, helps companies identify strengths and gaps, and encourages year-on-year improvement and a "race to the top."

Participants see details about their performance, and industry averages are reported for public consumption. Participants receive a comprehensive scorecard comparing their own progress year-on-year and how they rank alongside their peers. Customized scorecards are confidential to the participant, and annual insights, including index results, are shared in the public domain.

During this decade of action, the corporate benchmark leverages the SDGs to drive necessary Material Change for people and planet.



# Corporate Fiber & Materials Benchmark Program

## Moving forward with special guests Gautam Shah, Director of Operations and Vikram Shetty, Co-founder and Community Builder at 73Bit.

Since the beginning, 73Bit, a web-based benchmarking platform provider, has been an integral part of the CFMB program's foundation and growth. Textile Exchange relies on the expertise and innovation of the 73Bit team—as well as their benchmarking platform—to deliver our program, including the Material Change Index.

### Can you tell us about your benchmarking services?

GS: 73Bit developed “Probench” a software platform in 2007. Since then, we have built a community of around 20 organization offering benchmark-related programs, indexes, and similar assessments of companies, including Textile Exchange's Material Change Index. Our diverse range of clients includes the United Nations Principles for Responsible Investing (UNPRI), Access to Nutrition Index, and Business Benchmark on Farm Animal Welfare (BBFAW).

### What is special about your relationship with Textile Exchange?

GS: Simply put, our relationship with Textile Exchange is a mutually beneficial and rewarding one. Together, we push each other to new areas of development and the resulting innovation allows us both to evolve—and to share with the wider Community of Practice. This open-access allows for scaling of innovation and rewards always go full circle.

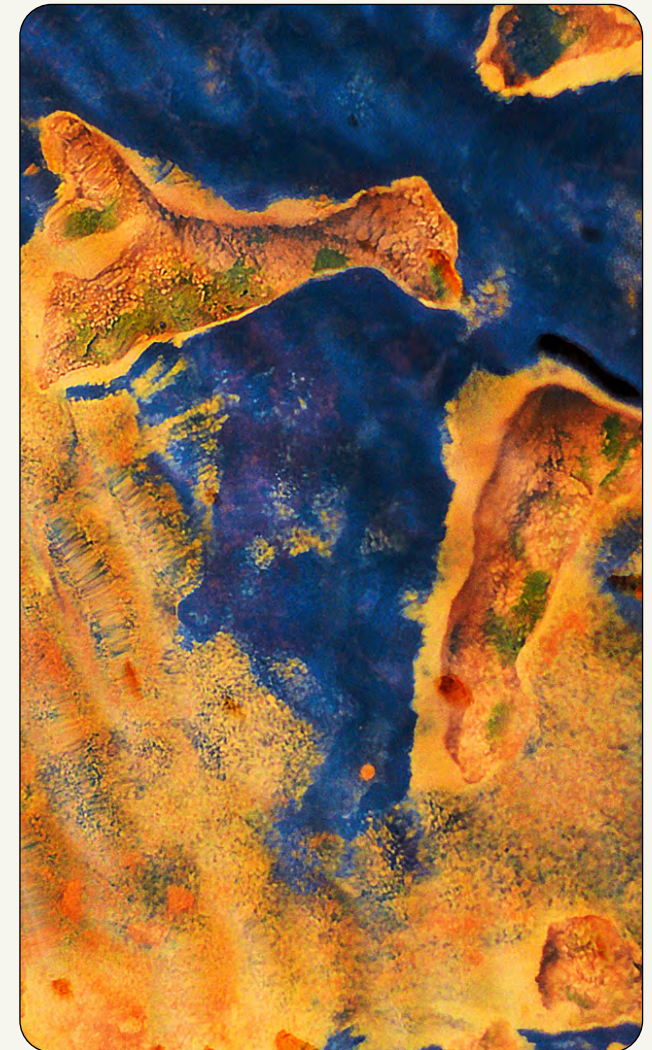
### Vikram, you were one of the founders, but can you tell us about your unique and creative role in the company?

VS: We provide a high-quality experience to our clients, but we go beyond that. We are currently building a close community of active members to whom we can provide additional value. This community is of people working in sustainability benchmarking, index development, ratings, rankings, and similar assessment. We want to provide this community with content that will truly delight them and be so valuable that they will want to share it with their wider teams and the wider world. This will give us a sense of achievement that we understand the community better and serve them to the best of our ability.

We are proud of our collaborative community, and we are working hard to build shared assets and knowledge that help everyone to move forward in achieving their goals.

### And to the future, what's your goal?

VS: We are proud of our collaborative community, and we are working hard to build shared assets and knowledge that help everyone to move forward in achieving their goals. This collaborative spirit was born out of our first-hand experience of building Probench as an open innovation within our community—using the collective inspiration and efforts of all. This aspiration drives what we do each and every day.





# Corporate Fiber & Materials Benchmark Program

## About the Material Change Index

The Material Change family of indices is driven by a sophisticated scoring methodology. A simplified summary of how the scoring works for each index category is provided below, however please refer to the Scoring Methodology for full details.

The Material Change Index is the result of an assessment of the overall performance of a company that has completed the full MCI survey. It is based on scores within each of the three sections, i.e., Strategy and Integration (25%), Materials Portfolio (65%) and Materials Circularity (10%). MCI results are normalized to a score out of 100.

Business Integration reflects a company’s materials sustainability strategy and how it is integrated into the core of the business and its management systems.

### Family of indices:

#### Useful links:

- [Material Change Index Leaderboard](#)
- [Results Guide](#)
- [Getting Started FAQs](#)
- [Materials Terminology Guide](#)

I. Strategy	II. Materials Portfolio							III. Circularity
	Plant Fibers 	Animal Fibers & Materials 		Leather 	Regenerated Fibers 	Synthetic Fibers 		
	Cotton	Wool	Down	Leather	Manmade Cellulosics	Polyester	Polyamide	
Materials Strategy	Risk Management							Circularity Strategy
Leadership	Investment							Business Models
Internal Engagement	Transparency							Resource Efficiency
Materiality	Targets							Design for Circularity
Customer Engagement	Uptake							Textile Collection
Reporting	Impact Monitoring							Recycled Content

The framework is aligned with the Sustainable Development Goals (SDGs).

The Materials SDG Index reflects progress against the Sustainable Development Goals (SDGs). It is derived of a cross-cutting score that draws selected SDG-related results aggregated from Materials Strategy (85%), Materials Portfolio (2.5%) and Circularity (12.5%) sections of the benchmark. This is then normalized to a score out of 100 to create the SDG Index.

The Materials Circularity Index is derived from a company’s response to questions in Section III of the MCI survey and normalized to a score out of 100

Material index scores reflect the sustainability progress made by the company at the individual material level and cover both management (30%) and performance (70%). There are seven Material Indices: Cotton, Polyester, Polyamide, Manmade Cellulosics, Wool, Down, and Leather.

# Corporate Fiber & Materials Benchmark Program

## A preferred material

Textile Exchange currently defines a preferred fiber or material as one which results in improved environmental and/or social sustainability outcomes and impacts in comparison to conventional production.

### Ways to recognize or achieve a preferred status

- Sustainability criteria developed through a formalized multi-stakeholder process.
- A recognized industry standard in place which confirms its status as preferred.
- A robust chain of custody system in place to track or trace the material through the supply chain and back to its origin.
- Objectively and scientifically tested or verified as having greater sustainability attributes, such as through peer reviewed Life Cycle Assessment.
- Potential for circularity (under consideration for inclusion in updated preferred material assessment)

### A portfolio approach

- Build a suite of preferred materials, from a choice of preferred options, through the consideration of impacts and organizational priorities.
- Embed a strategy that leads to preferred options replacing unsustainable or less sustainable options.
- Make a commitment to the principles of continuous improvement and ensuring options selected result in a positive impact.

## Plant fibers & materials

### Cotton

- BASF e3
- Better Cotton
- bioRe
- Transitional Organic Cotton
- Cotton made in Africa (CmiA)
- Fair Trade
- Field 2 Market
- ISCC Certified
- myBMP
- Organic cotton
- Organic Fair Trade
- REEL Cotton
- Regenerative Organic Certified (ROC)
- Responsible Brazilian Cotton (ABR)
- US Cotton Trust Protocol
- **Recycled cotton**

### Rubber

- Fair rubber
- Forest Stewardship Council (FSC)
- Global Organic Latex Standard (GOLS)
- Organic rubber
- **Recycled rubber**

## Animal fibers & materials

### Cashmere

- Certified Wildlife Friendly™
- Good Cashmere Standard
- Sustainable Fiber Alliance Standard (SFA)
- **Recycled cashmere**

### Down

- Downpass
- Organic down
- Responsible Down Standard (RDS)
- **Recycled down**

### Leather

- Land to Market™
- Leather Working Group
- Organic leather
- **Recycled leather**

### Wool

- Organic wool
- Ecological Outcome Verification (EOV)
- Responsible Wool Standard (RWS)
- ZQ Certified
- **Recycled wool**

## Regenerative fibers

### Manmade Cellulosics

- Acetate (FSC, PEFC)
- Cupro
- Lyocell (FSC, PEFC)
- Modal (FSC, PEFC)
- Viscose (FSC, PEFC)
- **Recycled cellulose**

## Synthetic fibers

### Polyamide

- Bio-based polyamide
- **Recycled polyamide**

### Polyester

- Bio-based polyester
- **Recycled polyester**



# Appendix

# In Their Own Words

## COVID-19 disruptions bring fresh thinking

### Materials and sourcing

- Built out our sourcing strategy to include new vendors as a contingency to support potential COVID-19 shutdowns. We increased our weeks of supply of products to proactively plan any future shutdowns due to COVID-19.
- Apparel/Footwear
- [COVID-19 accelerated] the reactivation of European supply chains, due to complications, costs and longer lead times from Asia.
- Manufacturer/Supplier
- Direct financing and sourcing of raw organic cotton. In cooperation with our producer, we source cotton now directly after harvesting, so farmers have more security regarding fair and organic prices, instead of selling for world market price at the end.
- Brand/Retailer
- Respond to delays/ postponements, greater importance of nearshoring.
- Multi-sector
- In partnership with a larger B2B partner, we began our first in the world Biodynamic/Demeter in conversion cotton farm project in Namakkal, Tamil Nadu.
- Apparel/Footwear

### Online solutions

- Online sales meetings were organized rather than physical meetings. The brand invested in online presence and marketing like online marathon events.
- Outdoor/Sports
- We launched a B2B organic fabric online-shop to compensate the lack of trade fairs. This online-shop was accepted well and will stay a key channel for us.
- Brand/Retailer
- We have drastically increased our digital direct-to-consumer channel as a result of extended storefront and outlet closure throughout the pandemic.
- Outdoor/Sports
- Our digital platform performed much better than expected, we also accelerated the digitalization of our designs.
- Apparel/Footwear
- Development of digital platform/webshop were ongoing before COVID-19 hit, but this work was accelerated during COVID-19, new ways of delivery etc.
- Apparel/Footwear
- The biggest change was with our wholesale channels and the switch to 100% virtual presentation of our product lines (no more shows).
- Apparel/Footwear

### Business model pivot

- We set our new Climate Positive Commitment.
- Apparel/Footwear
- COVID-19 has pushed the consumer sentiment in favor of sustainability.
- Manufacturer/Supplier
- We started a partnership with the thrift stores, seeking to encourage conscious consumption and extension of the useful life of the parts.
- Brand/Retailer
- New sense of urgency to become circular.
- Apparel/Footwear
- No changes but the strength of circularity and a circular business was further proved.
- Apparel/Footwear
- [COVID-19 accelerated] more sustainability, circular business model opportunities recycling waste product.
- Brand/Retailer
- Accelerated our circularity and re-commerce strategy, business planning, and pilot initiatives.
- Outdoor/Sports
- New buying tools online, less samples made due to that, circularity strategy.
- Apparel/Footwear

# In Their Own Words

## Looking back, moving forward

### What's on the corporate radar (next 5-10 years)?

I think that we will have amplified the waste to fiber model across many sectors, working to reduce landfill from bio-waste. We will have scaled these models to where they are not novel, but consistent and expected to move away from fossil fuel products.

Honestly, the supply chain will be smaller, leaving only the large and startups. The middle range will either grow or disappear due to the current economic state.

My hope is that technology will be further leveraged in all capacities for transparency, for circularity and for storytelling to connect consumers to the humanity of the supply chain.

It would be amazing to see land use shift to more regenerative, but I think we will only see single digit growth until after 2030 due to the length of conversion and the systemic plan of land use today that is largely political.

For transition of all, we need to gain consumer understanding that their purchases can positively effect climate change, and craft transitional language that allows a brand to support the transition in a grey space rather than the black and white of certifications today.

– Outdoor/Sports

### What's on the corporate radar (next 5-10 years)?

With new legislation incoming, I think that there will be a shift in production markets due to trade regulations and logistical hiccups. The global setting for this industry will provide challenges that need to be dealt with from a business perspective if not from a sustainability point of view.

Brands that are based in the EU will see an increased cost to run this business model as we need to invest in IT infrastructure for both supply chain transparency, 3D design and production on demand.

There will also be extra costs for extended producer responsibilities, carbon taxes, and increased costs for raw materials. New (European) production markets will also cost more.

There is a huge development of this industry and the ones that are not planning for the change and transformation will find themselves to have a big business risk.

– Apparel/Footwear

### What's on the corporate radar (next 5-10 years)?

Sustainability will only increase in importance, in the eyes of legislators, consumers, and brands themselves.

The interim 2030 milestones for net zero pathways will mean companies need to show demonstrated and accelerated action on climate targets. There will be no hiding.

I predict that “greenwashing” and promotions of sustainability will peak soon. Over the next five to ten years, legislation will mean many claims made today are a minimum standard of doing business.

Our consumer research shows that consumers (particularly younger generations) are buying less, buying better quality and buying second hand. There will be an increase in business models that extend the life of existing clothing.

We will also need to be using data in a smarter way to support decision making, increasing the amount of data available and aligning data to promote standardization of measurement.

The focus of sustainability strategies will move away from sustainable materials to a more holistic viewpoint, addressing the overall product impacts and decarbonization of the supply chain, notably fabric manufacturing.

– Apparel/Footwear



# In Their Own Words

## Looking back, moving forward

### What's on the corporate radar (next 5-10 years)?

Over the next 5 to 10 years, preferred materials will become the norm and brands should (and will) begin to think about how to make their preferred materials even better. Supply chain interventions, alongside selection of preferred materials, will be essential.

Each fiber or material has a set of impacts, and strategies will need to be created on how to manage these various risks and challenges. Brands (small and large) will be challenged to better know their supply chain.

Investments will need to be made in the supply chain as companies recognize that their strategy needs to be holistic and complimentary.

The industry will also be confronted with the challenges of growth and decoupling their impacts (emissions, water etc.) from their growth plans. In addition, companies will invest in circular solutions for their product, thinking about textile and garment recycling, resale and longevity as part of their sustainability strategies.

– Outdoor/Sports

### What's on the corporate radar (next 5-10 years)?

There will be an ever-increasing attention to the use of less harmful fibers. This could bring a lot more greenwashing as brands will try to scramble to keep up with the consumer's awareness and demands. This can hopefully be tackled in part by changing legislation and regulation (as expected in the EU and UK). Traceability will become ever more the focus for "sustainable" efforts.

– Apparel/Footwear

More transparency, less intermediaries, more cooperation, and better regulations are on our corporate radar.

More awareness on biodiversity is coming. Today, focus is mainly on carbon neutrality, but we need to start today to talk about biodiversity.

More focus will also be on Human Rights Due Diligence (HRDD) when it comes to raw materials. Today, there is a big focus on social compliances at the factory level, but very little when it comes to the raw material supply chain.

Technology has to help to unlock easy, accessible, trustful solutions to face the coming challenges and to give more transparency, to help to manage the complexity of the supply chains.

– Apparel/Footwear

### What's on the corporate radar (next 5-10 years)?

Extended producer responsibility within the textile industry and technical innovation is on the radar. Implementation on a big scale is needed to increase technical innovation's chance of success.

– Apparel/Footwear

I believe we will see increased traceability and transparency within the industry. To be able to trace and be fully transparent with the full supply chain will be a new norm, as we all will understand that to be able to have a sustainable production we also need to know where and how the garments, fabrics, and fibers are made. An increased digitalization will make this possible, but brands will also work with supply chains that are much more consolidated than today. We will also see a much more developed recycling industry, and increased use of recycled fibers.

– Apparel/Footwear

I think the Textile Industry is definitely moving towards recycled, upcycled and renewable options with much greater emphasis on SMART and innovative cutting-edge solutions across the board.

– Home/Hospitality



# In Their Own Words

## Looking back, moving forward

### What's on the corporate radar (next 5-10 years)?

The current movement of recognizing that impacts are happening at Tier 4, meaning in the farms, rangelands, forests or other landscapes, will just keep on being more understood and within the next 10 years the industry will have been compelled to evolve significantly to address those impacts. Through scaling-up regenerative agriculture practices, we will transition to ensure positive impacts on both biodiversity and climate.

#### – Apparel/Footwear

As an “Organic Cotton” focused company and looking back at the year 2021, we are obviously a little bit worried for the future, but at the same time we are confident because the market is driven by enthusiastic brands and Textile Exchange and other satellite organizations are really trying to find solutions to overcome the challenges that this entire market has been facing.

#### – Home/Hospitality

We are seeing rapid shifts to committing to more sustainable fibers. The major moves over the next 5-10 years will be scaling the systems that enable these materials—as of now our ambitions exceed our abilities. There's a need to be pragmatic and pursue improvements at scale.

#### – Apparel/Footwear

### What's on the corporate radar (next 5-10 years)?

The industry will move towards more preferred fibers and processing due to either pressure because other companies are more consistently doing the right thing and/or that governments start to impose penalties for inaction. Our industry has no real option but to improve, and if enough energy is spent moving us in a positive direction, the shear motion will create long-term shifts to improve conditions on our planet and for the people and animals that live on it. We need to use technology to reduce our impact and use all the energy and waste from the past to fuel our future.

#### – Outdoor/Sports

### Unlocking opportunities, finding solutions

Financing will help unlock technology and get it to scale. Making more sustainable and circular material options available at cost neutral or cheaper prices will be needed. As long as there is a significant upcharge for more sustainable materials, they will never be used at the large scale that is required to transform our industry.

#### – Outdoor/Sports

Lack of agile certification and processes for suppliers. Scalability of certification and certification bodies for a worldwide supply chain. Integrity and credibility of organic cotton is something that needs attention if we want organic to deliver to its potential.

#### – Multi-sector

### Unlocking opportunities, finding solutions

In terms of risk management, here is the summary of some of the key risks/challenges that might come into play in the near future.

(1) Price volatility to continue (Demand versus Supply dynamics).

(2) Geo and socio-political risks specific to certain geographies or regions.

(3) New and upcoming legislation and specific market compliance requirements.

(4) End-to-end traceability of supply chains particularly to the farm level.

(5) Connecting the dots in terms of a materials agenda versus a sustainability agenda specific to products and supply chains.

I think the need of the hour is a holistic landscape approach involving multiple stakeholders which should represent the policy makers, private institutions, businesses and the change enablers.

I think no one can make this happen in silos and time has come for a concerted Call to Action on the ground. Early movers will always have an advantage.

#### – Home/Hospitality



# In Their Own Words

## Looking back, moving forward

### Unlocking opportunities, finding solutions

The increase for demand of better fibers will likely continue at a faster rate than the supply can keep up, as we are currently seeing with organic cotton, which brings further integrity risks and further price increases.

#### – Apparel/Footwear

If we do not address the full breadth of raw materials supply chain, there will be limited improvements. As of now, there are only a few key players (large, yes) truly shifting their supply chains. Realistically there is a vast apparel market, as of yet, unengaged. As companies with commitments continue to pursue limited supplies of preferred materials, we aren't seeing evidence that the entire market is shifting, simply that there is a squeeze at the high-performing end.

The efforts to radically scale up modest improvements will support a broader transition, bringing down the cost of preferred materials for all, making them accessible, and expanding beyond the well-known circle of brands with similar commitments at the progressive end of the industry.

#### – Apparel/Footwear

### Unlocking opportunities, finding solutions

Where do we begin!

Responding to regional and political disruptions and climate or water risks in sourcing regions will become increasingly urgent.

Demand outgrowing supply of preferred materials is also a major problem. There is going to be severe competition among brands to source preferred materials, as well as the huge challenge of tracing fiber forward.

There is opportunity in creating new innovative sourcing models and circular solutions within apparel. There needs to be investment into the gaps that exist in achieving circularity and addressing the labor-intensive parts of that process.

Policy and regulation are needed to move the apparel sector past voluntary efforts. This includes decarbonizing the supply chain as well as extended producer responsibility to hold the sector accountable for the volume that it produces.

#### – Outdoor/Sports

### Unlocking opportunities, finding solutions

Recycling at scale. When all member states on EU have to have a separate textile collecting system on national level latest 2025 there should be an enormous push for innovation within fiber recycling and money should be invested in this space. How will it else be? Loads of collected garments and nothing to do with them?

#### – Apparel/Footwear

Collaboration: first and foremost, with our suppliers. Indeed, we need to actively engage the various players in our supply chain in order to ensure that the change towards more regenerative and more broadly more sustainable practices becomes a reality. We are dedicated to working with suppliers and other partners such as start-ups in order to accelerate the sourcing of sustainable materials and fabrics.

Beyond supplier engagement, it's also imperative to collaborate across the industry as demonstrated through the work led by Textile Exchange or through other collective initiatives such as the Fashion Pact. This coalition of companies in the fashion and textile industry aims at addressing global warming, restoring biodiversity and protecting the oceans.

#### – Apparel/Footwear

# In Their Own Words

## Looking back, moving forward

### How does benchmarking help?

It is good to have a benchmark against others on the material level. The benchmarking also made us think about additional material categories, that we did not have in focus in previous years.

– Outdoor/Sports

I've done it only twice, but it is quite a lot of work that needs to be well done if we want it to be useful.

– Apparel/Footwear

In terms of learnings, the benchmarking provides us with a platform and an opportunity to be introspective and analyze our strengths and weaknesses both internally and externally with respect to the overall market.

– Home/Hospitality

Measurements are important to create actions and develop improvements. Collaboration is the only way towards success. Benchmarks need to be as much about learning how to improve as measuring improvements.

– Outdoor/Sports

The benchmarking was the first step towards calculating our impacts as a company. It shined a light on a lot of the holes we needed to fix in our data and reporting capabilities to set us up for long-term success in our overall climate strategy and calculations.

– Outdoor/Sports

### How does benchmarking help?

That it helps us get our own data house in order, that it is deeply motivating to product teams and leadership to see our numbers improve.

– Apparel/Footwear

The benchmarking is very ambitious and by answering the questions we know what a strategy for a fiber could possibly contain.

We have come across a number of flaws/challenges in our way of calculating and measuring.

– Apparel/Footwear

Our biggest learning is, that we are on the right way with our material strategy. We learned, that we still need to improve ourself in the field of Polyamide and Elastane. We know, that we need to improve and only use better alternatives, but this is also one of the biggest difficulties.

– Apparel/Footwear

The CFMB has become the industry benchmark for sustainable raw materials. It is a very comprehensive evaluation that entails numerous inputs of information. Our biggest efforts have been to make all our relevant teams aware of its importance and the synergies with our strategy. We are now better prepared to provide insightful information and include this framework into our overall strategy that pursues transforming our industry.

– Multi-sector

### How does benchmarking help?

Going through the process is always a good exercise, to identify gaps in knowledge, and metrics that we should begin tracking.

– Outdoor/Sports

Even though we have been using our own methodology for measuring and quantifying the environmental impact of our activities, having a third-party analysis thanks to the Textile Exchange benchmark is a useful compass to guide our efforts when it comes to sustainable sourcing by flagging strengths and opportunities.

– Apparel/Footwear

My biggest learning is that what looks obvious, can actually be much more complicated. A sustainability journey is a long journey, it's not an easy journey, but it's the only one bringing the joy and the satisfaction to act while preserving our planet for the future generations. Filling out the benchmark, shows us things that we could do more to move faster in our sustainability journey. Textile Exchange is challenging enough to make the Benchmark difficult enough to force every participant to commit themselves to do better the following year, towards a better future.

– Home/Hospitality

Assessing the total volumes of fiber usage via the conversion factors and seeing our improvement over the years.

– Apparel/Footwear