



2021 Round Table Assembly

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La Rhea Pepper

CEO, Textile Exchange





About Us

Textile Exchange is a 501c3 non-profit founded in 2002. We create leaders in the sustainable fiber and materials sector by providing learning opportunities, tools, insights, standards, data, measurement and benchmarking — and by building a community that can collectively accomplish what no individual or company can do alone.





Our Mission, Vision & Strategy

OUR MISSION

Textile Exchange inspires and equips people to accelerate adoption of preferred materials in the textile value chain. We focus on carbon reduction, soil health, water and biodiversity as part of our holistic approach to drive positive impact for the entire industry.

OUR VISION

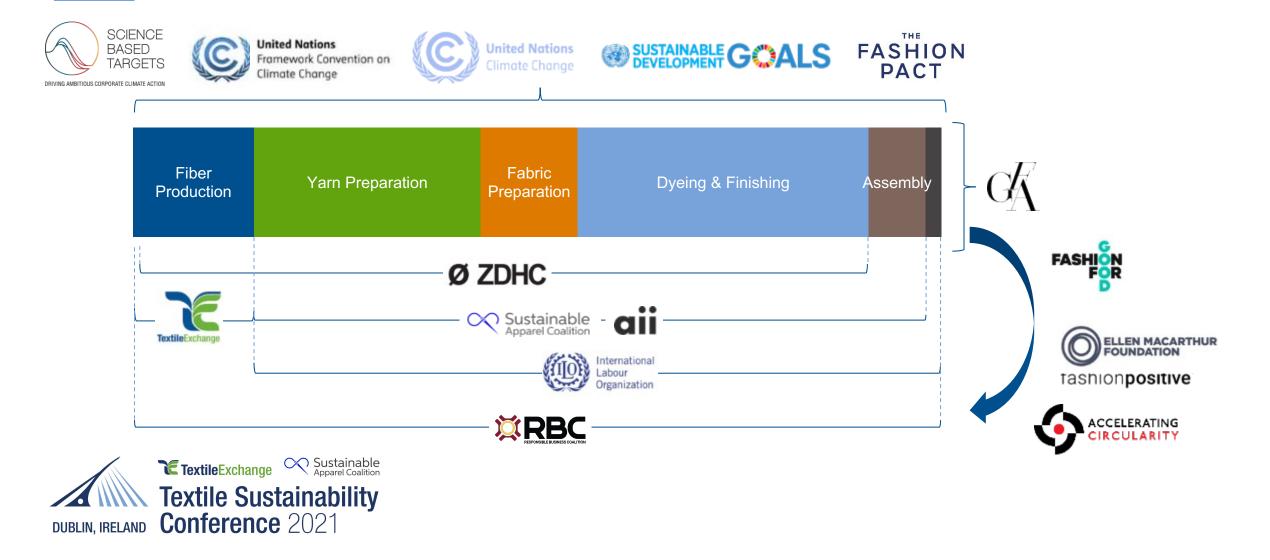
We envision a global textile industry that protects and restores the environment, while enhancing lives. By 2030 we aspire to guide the textile industry to reduce GHG emissions (CO_2 equivalents) by 45% from a 2020 baseline.

OUR STRATEGY

Our strategy is to accelerate climate action in the textile industry by providing trusted data and reporting, market-based solutions, and a community that can do what no single company or organization can do alone.



Partnering & Convening to Address Impacts





Climate+: Strategy Evolution

Beth Jensen:

Climate+ Strategy Director





CLIMATE **G Textile**Exchange • VISION 2030

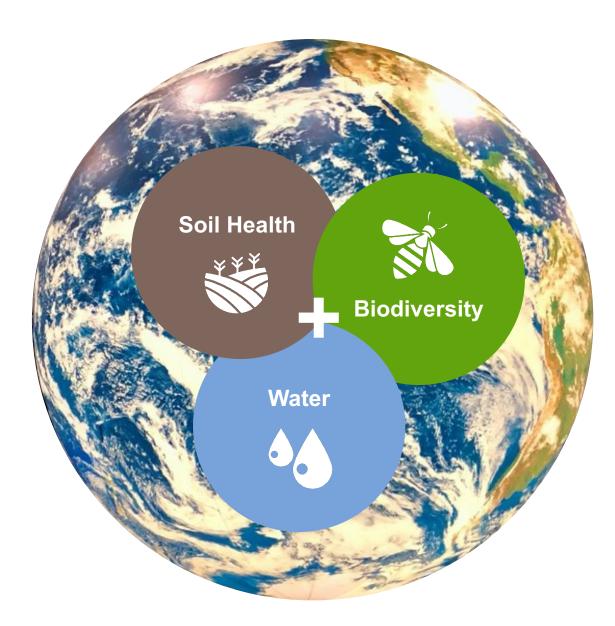
A driving force for urgent climate action in textile fiber and materials production.

Enabling and guiding the textile industry to reduce GHG emissions (CO2 equivalents) **45% by 2030** in the pre-spinning phase of textile fiber and materials production.



Grounded in Partnership+

Amplifying positive impacts in soil health, water, + biodiversity.



Comparison of Apparel and Textile Sector GHG Emissions - % of Global, Across Select Studies



Research	CO ₂ e Emissions (% of global)	Notes
A New Textiles Economy (2017, Ellen MacArthur Foundation and McKinsey)	1.2 Gigatons (2%)	Apparel only
Measuring Fashion (2018, Quantis)	3.29 Gigatons (6.7%)	Apparel only (footwear is an additional 0.7 Gt)
Fashion on Climate (2020, Global Fashion Agenda and McKinsey)	2.1 Gigatons (4%)	Apparel with a scale up for footwear ²⁴

New report launching November 2021: "Apparel and Footwear Sector Roadmap to Net-Zero Emissions"

Led by WRI and Apparel Impact Institute

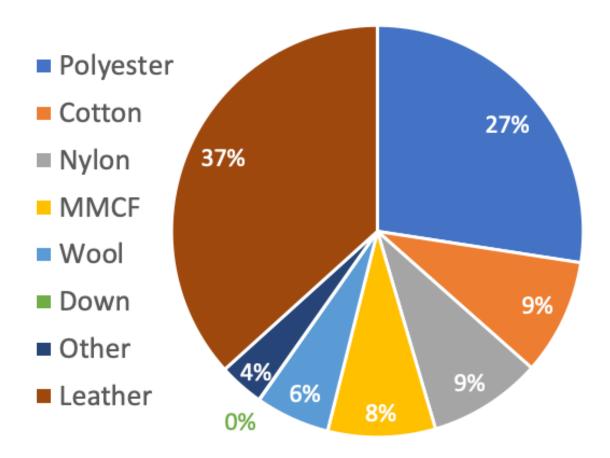
Estimated GHG Emissions for the Apparel Sector - Contribution by Tier

Figure 4: Estimated GHG Emissions for the Apparel Sector, 2019

Total Apparel GHG Emissions: 1,025 million tonnes CO₂e (1.025 gigatons) TIER 3 TIER 2 TIER 1 TIER 4 Textile **RAW MATERIAL** MATERIAL **RAW MATERIAL** FINISHED Exchange PRODUCTION **EXTRACTION** PROCESSING PRODUCTION Scope of ASSEMBLY Cultivation and Production and Processing of raw **Activity:** extraction of raw finishing of materials materials into yarn Assembly and "Pre-Spin" materials from the and other (e.g., fabric, trims) manufacturing of that go directly into earth, plants, or intermediate final products. finished product. animals. products. 241.3M tonnes CO₂e 80M tonnes CO₂e 155M tonnes CO₂e 534M tonnes CO₂e 24% 15% 52% 9%

Baseline: 2019 Emissions

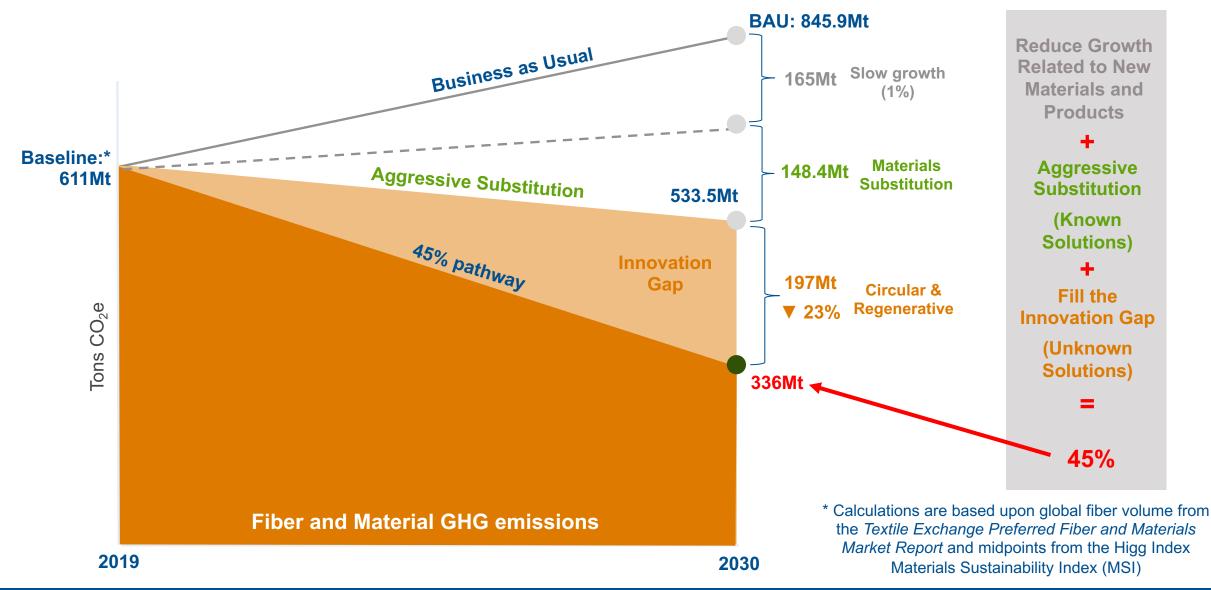
611 million tons CO₂e



Fiber Volume 2019

Material	Tonnes	%
Polyester	57,700,000	52.5%
Cotton	26,000,000	23.7%
Nylon	5,580,000	5.1%
MMCF	7,084,100	6.4%
Wool	1,070,000	1.0%
Down	270,000	0.2%
Other	4,870,216	4.4%
Leather	7,300,000	6.6%
Total	109,874,316	100%

Getting to 45% in Tier 4



Three levers to reducing impacts

Materials Substitutions

Substituting conventional materials for lower impact materials – known solutions today

Recycled materials

Certified preferred materials

Filling the Innovation Gap

Investing in technology and scalability of next-gen lower impact materials

Regeneratively grown materials

Textile-to-textile / polymer-to-polymer recycling

Biobased alternatives to traditional synthetics (note: not automatically "preferred")

Producing Less

Extracting fewer new materials to make fewer new products; decoupling "growth" from the above and redefining value

Materials efficiency / elimination of waste

Durable products

Circular products

Textile Exchange Climate+ Strategy: How it started

 2018-2019 Strategy development prowith Textile Exchange governance board 	ocess	 Additional strategy development of the strategy development of the strategy development of the strategy development of the strategy of the strategy with Round Tables 	and impact nared at 2020 erence (virtual)
	November 2019 • Launch of topline Clima Strategy at 2019 Textile Exchange Conference i Vancouver, Canada		2021 • Creation of new Climate+ department and team, to drive strategy integration across the organization

Textile Exchange Climate+ Strategy: How it's going

Textile Exchange Climate+ Strategy Team – new as of June 2021

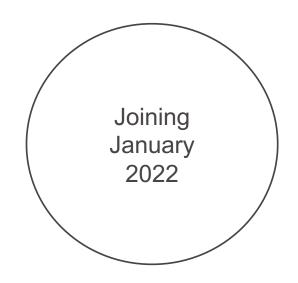


Beth Jensen Climate+ Strategy Director *Colorado, USA*



Hanna Denes Climate+ Strategy Senior Manager *Sweden*





To Be Announced Climate+ Impact Data Senior Manager *Europe*

Climate+ Department Priorities





MATERIALS IMPACT DATA



Integration of Climate+ strategy across Textile Exchange platforms and with external partners Supporting industry needs related to Tier 4 impact data and filling key data gaps, with an "LCA+" approach IMPACT AND INNOVATION



POLICY ENGAGEMENT



Enabling the industry to take coordinated, collective action on key cross-cutting topics:

- Regenerative agriculture
- Limiting growth tied to extraction of new materials
- Circularity initiatives with relevance to Tier 4

Where appropriate, advocating for key policy initiatives with relevance to Tier 4

Relevant across all Textile Exchange Round Tables



MATERIALS IMPACT DATA



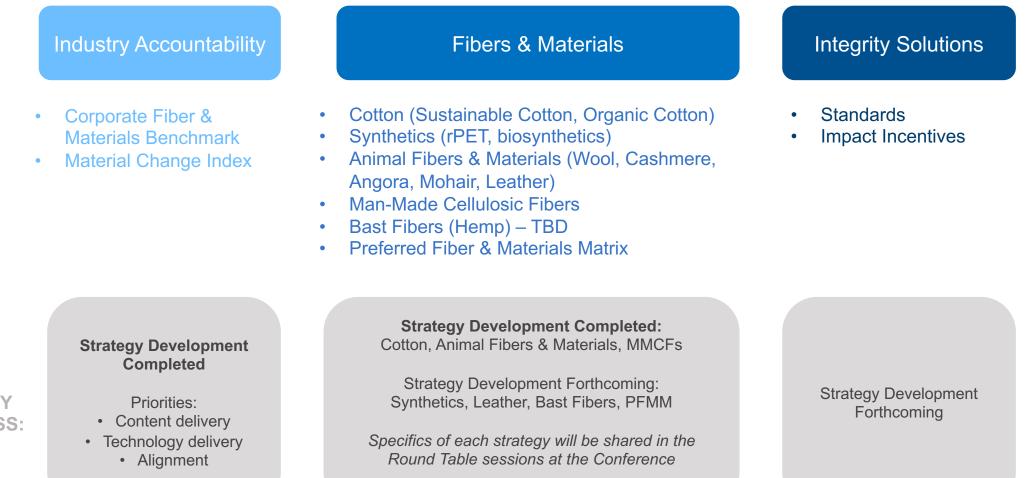




POLICY ENGAGEMENT

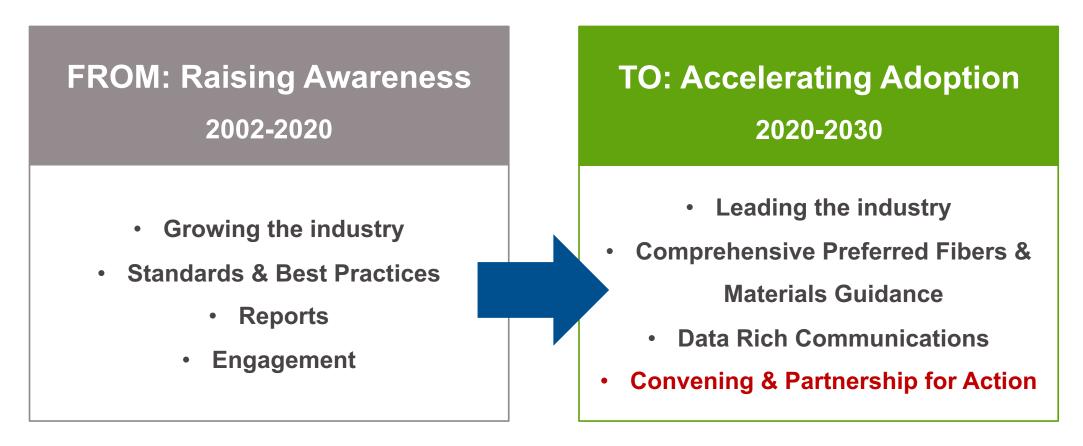


Climate+ Strategy Implementation Across Textile Exchange Platforms Within the new Textile Exchange organizational structure



STRATEGY PROGRESS:

Pivoting the Fiber & Materials Round Tables to Drive Climate+ Action



Round Tables will convene the industry around tangible projects that drive toward the 45% GHG emissions reduction goal

2022 Priorities

CLIMATE+ STRATEGY IMPLEMENTATION

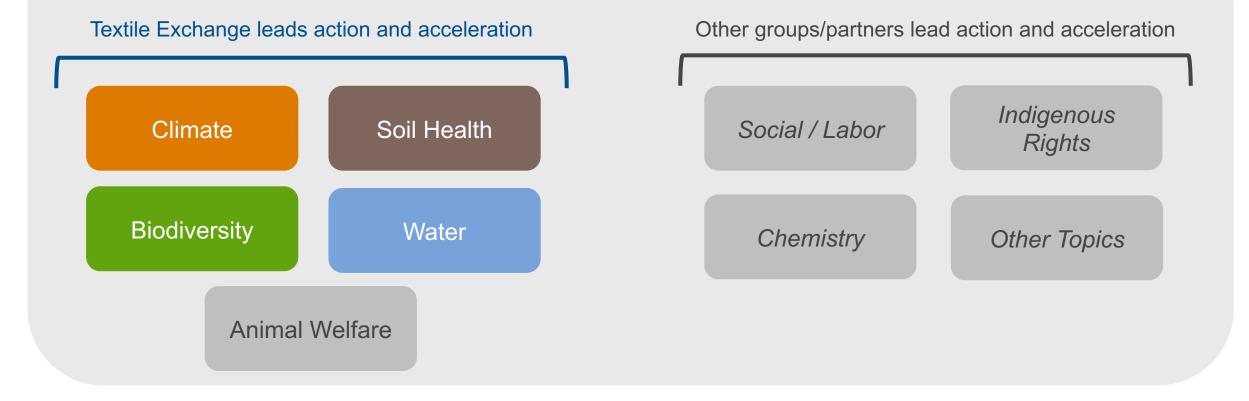
- Completion of platform-level strategies
- Workplans, timelines, and performance plans
- Round Tables and strategic partnerships to drive Climate+ actions
- Formation of more formal community of "Expert Advisors"





Climate+ Impact Areas – our "LCA+" approach

LANDSCAPE OF IMPACTS IN TIER 4 (RAW MATERIALS EXTRACTION)



The "LCA+" Equation – WORK IN PROGRESS

How we will measure the industry's positive impacts in climate, biodiversity, soil health, and water

Priority Outcomes

Examples:

- GHG Impact
- Eutrophication
 - Ecotoxicity
- Water Scarcity
- Species Diversity
- Land Use Conservation
 - Soil Organic Matter
 - Soil Water Infiltration

Impact Data Sources

Examples*:

- LCA data including the Higg Material Sustainability Index (MSI)
- Integrated Biodiversity Assessment Tool (IBAT) – STAR Metric (also being

explored by SBTN)

- Global Forest Watch
 - Delta Framework

*Note: we are closely monitoring the development of Science-Based Targets for Nature (will include biodiversity, water, and land), to ensure alignment with the outcomes, data sources, and targets identified within that framework More to come...

Life Cycle Assessment data (such as the Higg MSI)...

Is one important input to an "LCA" approach

AND

....we will need additional impact data sources to measure our progress in areas like biodiversity and soil health that are not covered by LCA methodology.

....is what we have available to use today, and is what EU policymakers have committed to using - so it is in our interest to work on improving the industry's LCA data, in conjunction with identifying other sources of impact data to enable a holistic view of impacts.

Has many shortcomings within its methodology

AND

What is Textile Exchange doing to address the industry's LCA data gaps?

A note on impact data use cases (value of tools)

Understanding Preferred Materials and "LCA+" Impacts

Textile Exchange Preferred Fiber & Materials Matrix

Broad view of materials choices, impacts, and trade-offs – both quantitative and qualitative indicators (MSI data is one of several key inputs into this tool) Making Product Environmental Impact Claims

Materials Sustainability Index (MSI)

Quantitative LCA data that has been normalized for use in product labeling, ensuring comparability of claims Tracking and Modeling Impacts ("Database" Function)

Textile Exchange LCA/LCI data project - TBC

Addressing the need for better LCA data to enable more accurate company and industry modeling against GHG reduction targets (i.e. Science-Based Targets) What is Textile Exchange doing to address the industry's LCA data gaps?

A note on LCA vs. LCI data

LIFE CYCLE ASSESSMENT / LIFE CYCLE ANALYSIS (LCA)

Goal & Scope Definition

Life Cycle Inventory (LCI) Life Cycle Impact Assessment (LCIA)

Interpretation

LCI quantifies the inputs and outputs of a system, material, and energy flows. When producing more than one product, an allocation problem rises. What share of the environmental burdens should be allocated to the product in question, i.e., in the LCI? Different solutions have been proposed, with the most well known being ISO 14041 (Vanegas, 2003)

Source: Carina L. Gargalo, ... Rafiqul Gani, in Assessing and Measuring Environmental Impact and Sustainability, 2015

What is Textile Exchange doing to address the industry's LCA data gaps?

Scoping a project to invest in gathering *Life Cycle Inventory* data for the industry in 2022

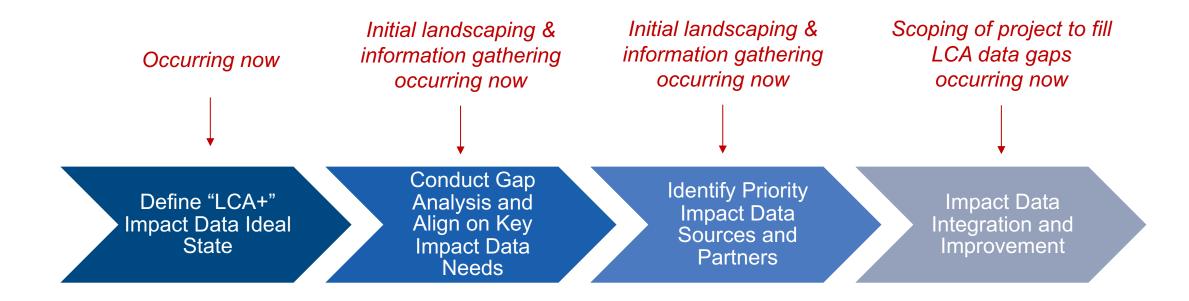
Objective input/output data points to which companies could apply the specific parameters and assumptions relevant to their sourcing scenarios, allowing more efficient creation of material-level LCA's

We think this makes more sense than investing in gathering full LCA's for the industry, given the variability of data and assumptions involved in each LCA as well as the high cost of conducting a single LCA – but open to feedback Participating in the Sustainable Apparel Coalition's Member Expert Team to evolve the MSI methodology

Refining the methodology to allow more efficient inclusion of data points, vs. continuing to require unique full LCA's that are costly and often noncomparable

Textile Exchange is very open to feedback and discussion on this topic and how we can best support the industry on this important issue – please bring your thoughts to the Round Tables!

Impact Data / "LCA+" – Internal Next Steps



THIS PROCESS WILL CONTINUE TO EVOLVE OVER TIME AS OUR UNDERSTANDING OF IMPACT DATA EVOLVES AND NEW IMPACT DATA AND METHODOLOGIES BECOME AVAILABLE

2022 Priorities

MATERIALS IMPACT DATA

- Onboarding of Climate+ Impact Data Senior Manager – January 2022
- Update impact reduction modeling against the 45% GHG reduction target
- LCA+ impact data model development
- Alignment with key partners around data sources and methodologies
- Life Cycle Inventory library/database project TBC

At the Conference (and Beyond)

Wednesday 10 November

Wednesday 17 November

SAC Annual Meeting – Impact Data Session

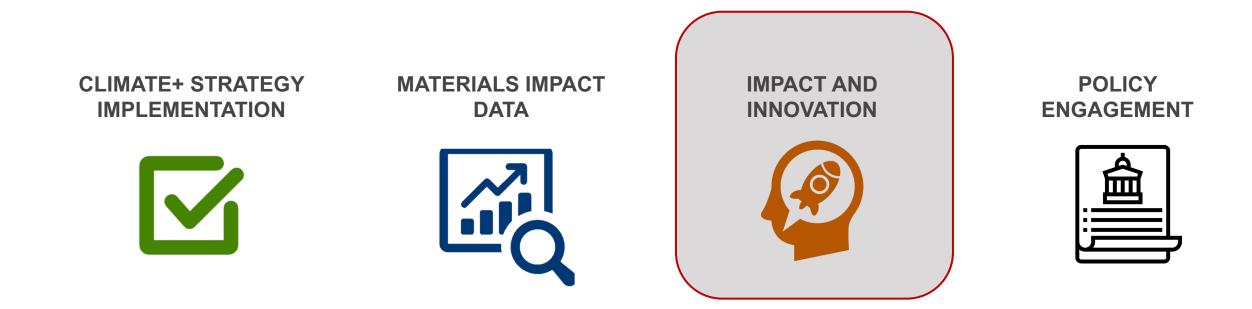
Conference Breakout Session: Textile Exchange's "LCA+" Approach to Understanding and Assessing Impacts

- Ed Ellis, Business Manager, Integrated Biodiversity Assessment Tool (IBAT) (virtual)
- Joel Mertens, Director, Higg Product Tools
- Michael Moeller, Division Manager Audits & Certification, Hohenstein Group
- Siena Shepard, Climate+ Strategy Manager / Preferred Fiber and Materials Matrix Manager, Textile Exchange
- Moderator: Beth Jensen, Climate+ Strategy Director, Textile Exchange

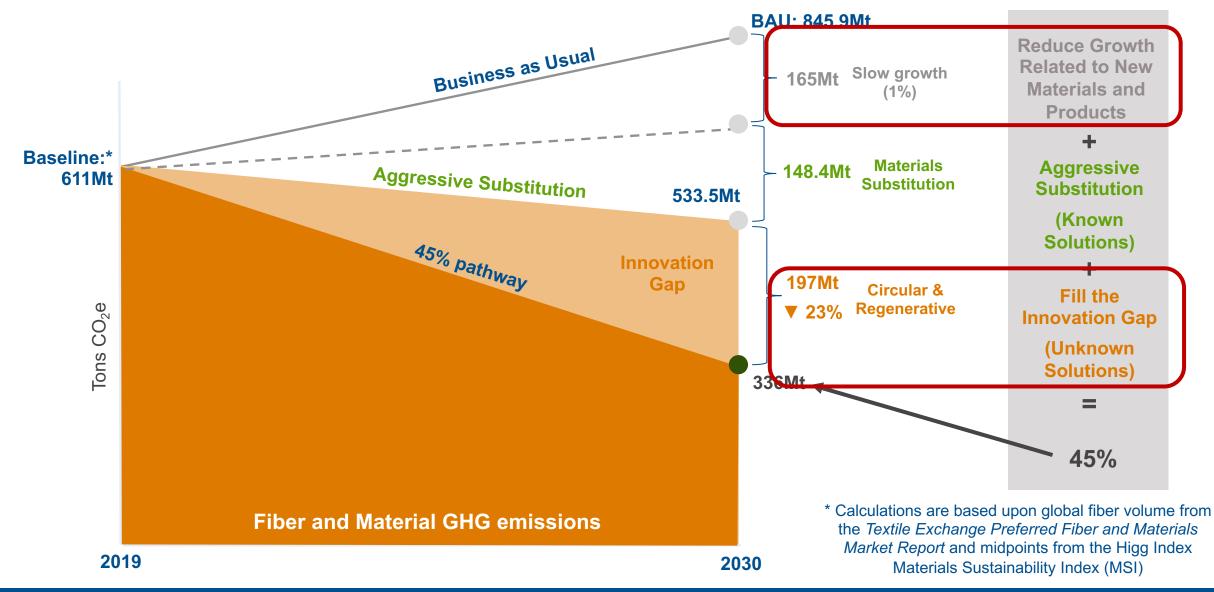




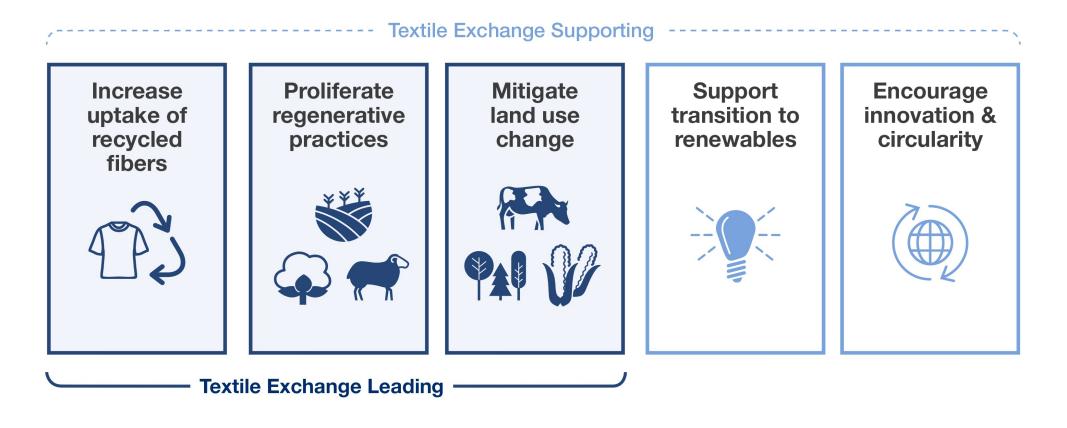




Getting to 45% in Tier 4



Key Emerging Technologies



Improve measurement tools & close data gaps

Regenerative Landscape Analysis Report



KERING





Deliverable: A public report to serve as a centralized reference point on the topic of regenerative agriculture and the related program and partnership space specific to the apparel, footwear, and textiles industry

Value of this Report:

- Prevent duplication of the research and fact-finding efforts currently taking place within individual brands
- ✓ Enable efficient determination of appropriate partners and scaling of projects
- ✓ Accelerate meaningful impact reduction via regenerative agriculture initiatives
- Timeline:November 18, 2021 Breakout session at Textile Exchange ConferenceTextile Exchange's Regenerative Landscape Analysis Report: Key Findings and Next Steps

January 2022 - Formal launch of report



2022 Priorities



- Regenerative Landscape Analysis Phase 2
 research
- Regenerative agriculture impact cohort
- Circularity and "degrowth" strategy development
- "Point of view" statements developed on key industry issues

At the Conference

Tuesday 16 November	Keynote: Jason Hickel, Author, Less Is More: How Degrowth Will Save the World
Wednesday 17 November	Breakout Session: Circularity in the Apparel Sector
Thursday 18 November	Breakout Session: Textile Exchange's Regenerative Landscape Analysis Report - Key Findings and Next Steps
Thursday 18 November	Breakout Session: Learnings from Leading Regenerative Agriculture Initiatives
Thursday 18 November	Breakout Session: Circular Solutions at Scale









Initial Policy Priorities for Textile Exchange



2

3 Product Labeling EU Focus

Preferential Tariff Project **U.S. Policy TBD:**

Regenerative Ag Policy

• Farm Bill

US Focus

USDA funding

Policy Hub

Where and how we are able to engage is limited by legal restrictions related to Textile Exchange's status as a U.S. 501(c)(3) nonprofit organization – we have already received a legal briefing on this, and are continuing to work with our lawyers to ensure we are clear on the nuances before moving ahead with some of the above.

Prioritization Criteria

How did we determine our initial policy priorities?

Policy area is	PTP	US Ag Policy	Policy Hub
directly relevant to Textile Exchange strategy and priorities (tier 4 environmental impacts)	\checkmark	\checkmark	\checkmark
applicable to a significant portion of Textile Exchange membership	\checkmark	\checkmark	\checkmark
already in motion and requiring our reactionary engagement			\checkmark
a potential risk for Textile Exchange and the industry if we don't engage			\checkmark
uniquely positioned for Textile Exchange to lead or actively support	\checkmark	\checkmark	
a potentially significant upside/benefit for Textile Exchange and the industry if we do engage	\checkmark	\checkmark	

2022 Priorities



- EU policy strategy development and execution
- Preferential trade initiative workplan and initial engagement
- Key regenerative agriculture policy partners identified; engagement in priority initiatives (i.e. 2023 U.S. Farm Bill)

At the Conference (and Beyond)

Tuesday 16 November

Conference Breakout Session: Policy Hub

Tuesday 7 December

Members-Only Webinar: Policy Hub Briefing for Textile Exchange Members Members, check your email for registration information!







Climate+: Material Specific Strategies

Megan Stoneburner: Director, Fiber and Materials





Fiber and Materials Goals

Vision (beyond 2030):

Achieve 100% recycled or regenerative fibers production and scale circular business models related to fibers and materials.

Short-Term (by 2024):

Determine baseline and set fiber-specific impact reduction KPIs and conversion targets to ladder up into Climate+ goals

Long-Term (by 2030):

Reach fiber conversion targets and slow virgin and non-regenerative fiber production growth to achieve Climate+ goals.



New! Fibers & Materials Department Priorities

Climate+ Strategy Implementation

Integration of Climate+ strategy across fiber specific categories (e.g., Cotton & Crops, Synthetics, Animal Fibers, and MMCFs) – preview to be shared at RT Summits in November

Preferred Fibers & Materials Uptake

Driving collective action to increase the uptake of preferred fibers and materials in support of Climate+ outcomes, and to slow the growth of / eliminate the use of conventional fibers

Driving PFM Innovation & Impact

Enabling the industry to pilot and measure the impact of new innovative fiber solutions to bridge the Climate+ gap:1) Regenerative agriculture; 2) textile to textile recycling; 3) biosynthetic solutions; and 4) next gen cellulosic fibers.

Convening Industry To Take Action

Driving industry alignment, partnership and opportunities to collectively achieve PFM conversion targets and Climate+ goals

Fibers & Materials Resources & Tools



Fiber Challenges

Sustainable Cotton Challenge – commit to 100% of cotton from sustainable sources by 2025 rPET Challenge – commit to an ambitious uptake target

(aim for total rPET to reach 45%) by 2030





PFM Matrix

Assesses the impacts of fibers and materials across 9 impact indicators with the aim to inform brand PFM portfolios, targets and roadmaps, and sourcing strategies.



PFM Toolkit

A training course aimed to guide brands and retailers in making continuous progress towards building PFM portfolios at scale



Round Tables

Total of 8 Round Tables across the core fiber types tasked to identify barriers and solutions to increasing the use of PFMs



Climate+: Round Table Evolution

Sevilla Iovacchini:

Sr. Manager, Industry Engagement



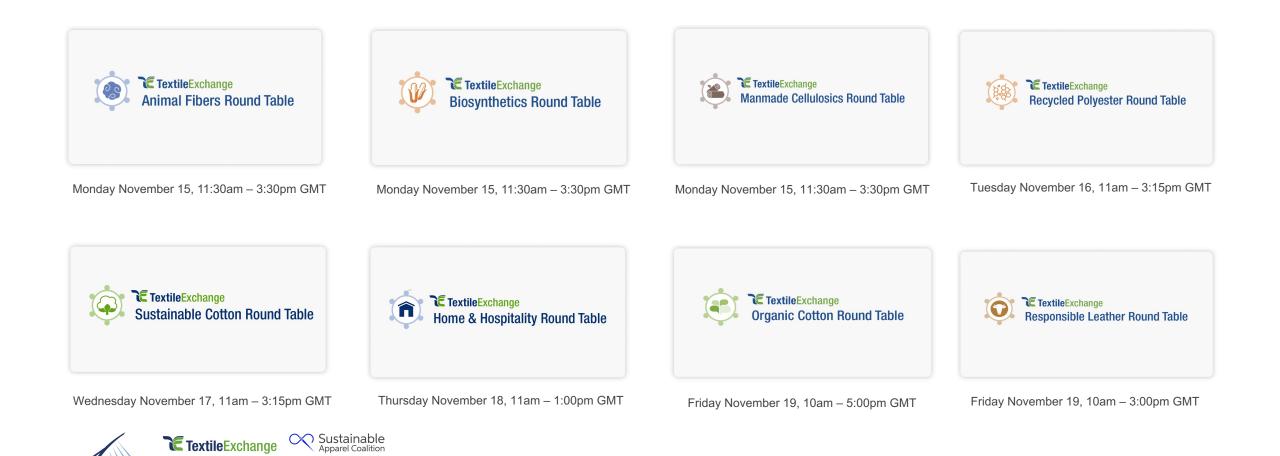


2021 Round Table Summits

Textile Sustainability

Conference 2021

DUBLIN. IRELAND



Animal Fibers and Materials Round Table



- Monday November 15, 11:30am 3:30pm GMT
- Join us for an engaging session on animal fiber systems. With input from experts and practitioners, we will explore how the key Climate+ impact areas of carbon, soil, water, and biodiversity relate to animal fiber systems and how the supply network can collaborate together to support this work. The second half of this RT meeting will be set in breakout groups where members will have a chance to explore case studies and extract key findings focused on action and partnership.



Biosynthetics Round Table



- Monday November 15, 11:30am 3:30pm GMT
- The Biosynthetics Round Table Summit is our annual meeting that connects members of the Round Table and the broader industry to inspire and equip people to accelerate sustainable practices and reduce climate impacts focusing on biosynthetics.



Man-made Cellulosic Fibers (MMCF)



C TextileExchange Manmade Cellulosics Round Table

- Monday November 15, 11:30am 3:30pm GMT
- Join our annual MMCF Round Table Summit in person or virtually to learn, discuss and co-develop what the MMCF sector needs to prioritize to overcome technical, societal and commercial barriers. Participate in interactive panels and breakouts lead by NGO and industry professionals and network with experts of the whole value chain from feedstock to end-of-life of MMCF fibers.



Recycled Polyester (rPET) Round Table



TextileExchange Recycled Polyester Round Table

- Tuesday November 16, 11am 3:15pm GMT
- The rPET Round Table aims to leverage industry expertise by bringing balanced participation from business, civil society, government, and development partners to discuss specific sustainability themes in the textile industry, through facilitated dialogue while working together to articulate a broad industry strategy and action plan.



Sustainable Cotton Round Table



- Wednesday November 17, 11am 3:15pm GMT
- The Sustainable Cotton Round Table (SCRT) works to increase the uptake of organic and preferred cotton, which has the ability to increase the income of smallholder farmers, reduce water use and improve water quality and soil health.



Home and Hospitality Round Table



- Thursday November 18, 11am 1pm GMT
- The primary objective of the Home & Hospitality Round Table (H+HRT) is to better understand the preferred fiber and materials needs and priorities of this industry sector. The H+HRT Summit is our annual meeting that connects stakeholders the broader industry to look at the unique challenges and opportunities this sector has to accelerate sustainable practices and reduce climate impacts.



Organic Cotton Round Table



- Friday, November 19, 10am 5pm GMT
- The Organic Cotton Round Table (OCRT) aims to bring together the global organic cotton community to collectively address the challenges and opportunities that exist within the sector. The event will cover a range of topics from the evidence for organic to the important role of in-conversion cotton in the journey to organic. We'll hear leading-edge examples from around the world of how organic cotton is being upscaled, and there will be plenty of opportunities for all attendees to interact and discuss the burning issues for the sector.



Responsible Leather Round Table



- Friday November 19, 10am 3pm GMT
- This year's RLRT summit will focus on the ways that the Leather Impact Accelerator (LIA) and Impact Incentives can be used to individual and global sustainability targets. We will look at where LIA is at and where it is heading in the context of what is happening in the wider leather landscape.
- Do not miss the launch of the Deforestation and Conversion Free challenge by Textile Exchange, NWF, WWF, and the Accountability Framework.

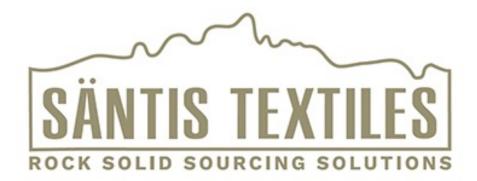


Questions?

Please type them in the Q+A box!



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Appendix



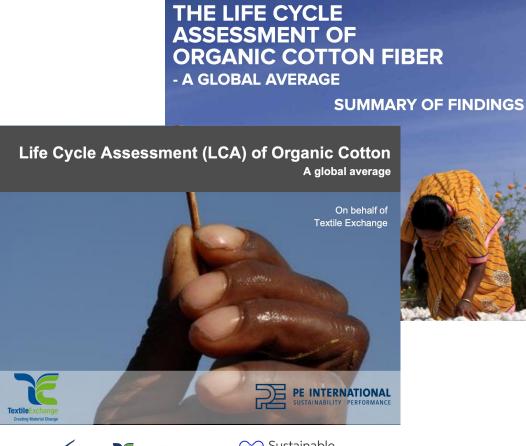


"LCA+" Impact Data Sources Key Gaps/Needs

- Representative LCA's (powered by LCI data)
 - Top representative of global sourcing regularly updated and used to calculate broad industry-wide progress
 - Additional LCA's representative of individual companies' key materials scenarios by volume used to calculate progress against individual SBT's
- Science-Based Targets for Nature guidance on biodiversity and water outcomes, impact data, and accounting methodologies
- Soil health data collected at individual farm level and rolled up to supply shed / regional reporting level
- Ability to capture impacts at supply shed / regional level
 - TE work to develop GIS/geospatial mapping
 - Gold Standard "supply shed" development
 - Regional farm groups/collaborations (i.e. Fibershed in California, New Zealand Merino)



A note on LCA's and the TE Organic Cotton LCA





- This LCA was conducted in 2014 Textile Exchange spent significant \$\$\$ to ensure that it was conducted by the same consultant, using the same methodology, as the Cotton Inc. 2012 LCA.
- The comparative information as written in the Summary of Findings is accurate – because they have framed the comparisons as being between two specific studies, which were conducted using the exact same methodology.
- However, outside of this specific comparative framing, these numbers should NOT be used to make broad claims about organic vs. conventional.

How is the TE Organic Cotton LCA being used?

- Life Cycle Inventory (LCI): the data collection portion of LCA the straightforward accounting of everything involved in the "system of interest." The thousands of quantifiable data points collected within a specific sourcing scenario. LCI data is used to conduct LCA's.
- Life Cycle Assessment/Analysis (LCA): LCI data with assumptions applied to reflect the "system of interest" this includes defining goals, scope, and intended use of the LCA; inventory analysis, impact assessment, and interpretation.
- The GaBi database uses LCI data from the 2014 TE Organic Cotton LCA to underpin all of the global LCA calculations on
 organic cotton. This is why it was so critical to conduct the the 2014 LCA using a specific methodology and consultant, to
 ensure it could be used for this purpose.
- The GaBi database is what provides the background data for the MSI. So while the TE Organic Cotton LCA is <u>not</u> in the MSI, the LCI background data from the TE Organic Cotton LCA is being used to power any organic cotton LCA's that meet the requirements for comparability within the MSI.
- LCA data from Cotton Inc. is being used in the same way within GaBi and the MSI for conventional cotton. Their last update was in 2016.

