

The Upcoming Circular Economy for Textiles



Life has changed



And the global supply chain that feeds life is now filled with complexity, uncertainty and risk

TRASH TO TREASURE



The U.S. Chamber of Commerce Foundation has published *Trash to Treasure: Changing Waste Streams to Profit Streams*, and they listed several interesting stats from the report:

- **342 million metric tons of waste to landfills and incinerators in 2014 in US.**
- **If reduced paper waste by 1%, it would save companies nearly \$1 billion.**
- Company waste is 37% paper, 21% food/other organic materials, 17% plastic, 11% construction materials, and 8% metals.

United Nations signed 2030 Agenda for Sustainability Development on September 2015

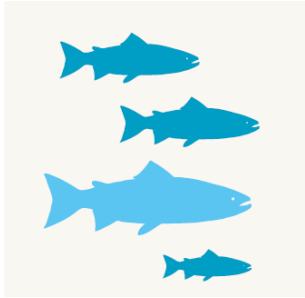


17 Global Goals, 169 Targets by 2030 for Sustainable Development



The Global Goals, or Sustainable Development Goals (SDGs)

It's Happening in Many Industries



- Credible Standards and Certifications are key to SDGs
- Sustainable Salmon Farming by 2020
- Zero Deforestation by 2020 – beef, palm oil, pulp, paper, soy

What are Brands Doing to Meet SDGs

COMMITMENTS TO MARKET TRANSFORMATION THROUGH STANDARDS

TIMBER, PULP & PAPER



- **IKEA** sourced 50 per cent of its timber products from FSC-certified or recycled sources in 2015, and it's committed to 100 per cent by 2020. IKEA's commitment has resulted in big increases of forest certification in China, Russia and Eastern Europe.
- **Kimberly-Clark** purchases 100 per cent of the fibre in its global tissue products from certified suppliers.
- **Procter & Gamble** used FSC sources for 50 per cent of the fibre in its tissue and towel products in 2015.

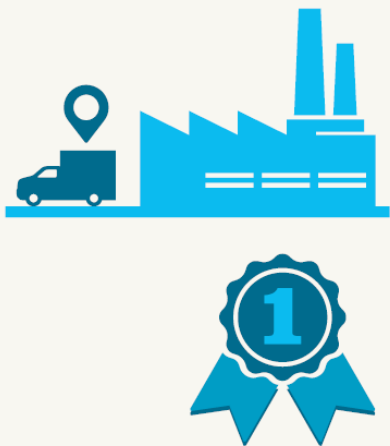
Shared Benefits



Shared benefits across supply chains

- **Efficiency:** in many cases, the improved management practices required to meet standards will improve the overall efficiency of producers, workers, processors and traders.
- **Transparency and traceability:** the use of credible certification coupled with traceability enhances transparency within supply chains and provides public information about sustainability.
- **Supply chain relationships:** multistakeholder standards can strengthen relationships between buyers and suppliers, increasing the longevity of their commercial exchanges and allowing for better long-term planning.

Shared Benefits



Benefits for producers and certified firms

- **Increasing profitability and productivity:** in many sectors certification has led to higher revenues through increased yields and reduced inputs, and helped small and medium enterprises to realize economies of scale
- **Lowering external costs:** certification is a way of lowering the external costs of production, which benefits the environmental and social well-being of producers and the communities they live in.
- **Market advantages:** credible certification can help producers to access high value markets, and may include a price premium.
- **Access to finance and payments for ecosystem services:** increasingly, banks and investors are looking for their clients to become certified, and will offer better credit terms because of the reduced risk. Private and public funders are creating systems to reward those who help to maintain and enhance ecosystem services, such as freshwater supplies and carbon storage. Businesses using sustainability standards are well placed to access such incentives.

What Does this Mean for Textiles?



MANUFACTURERS, TRADERS, BRANDS AND RETAILERS SHOULD:

- Map the sustainability impacts of their operations and supply chains.
- Engage with and use credible standard systems to increase the use of sustainability practices.
- Make public commitments to credibly certified and (where possible) segregated commodities for 100 per cent of their volume requirements.
- Use credible standards to report on progress toward their sustainability targets and the SDGs.

From Linear to Circular...



The Circular Economy is Here



A **circular economy** is restorative and regenerative by design, and aims to keep products, components, and materials at their highest utility and value at all times.



Millennials Are Most Responsive/ Sensitive To Sustainability Actions



- The 92 million millennials in the united states spend a total of \$600 billion each year
- Millennials are estimated to have a combined global spending power of 2.45 trillion in 2015
- MILLENNIALS MAKE UP ABOUT ONE-FOURTH OF THE US POPULATION ([Nielsen](#)).
- 85% of Americans ages 18-29 are smartphone owners
- 90% of millennials ages 18-29 are on social media
- 40% of millennials relate to online influencers more than they do their friends

Ralph Lauren unveils forest-friendly sourcing policy



The firm plans to publish and implement new sourcing guidelines this year as part of a broader traceability initiative © Paul Porter /BFAnyc.com

posted by Francis Churchill
in Ethics, Supply chain
10 January 2017

Ralph Lauren has committed to tracing its supply of wood-based fabrics to prevent rainforest destruction and human rights abuses.

INSIDER SERIES

06

Millennials are influencing sustainability choices in the home textiles market, both in their own purchases, and the choices they make in travel and hotels. **WestPoint Home** President and CEO Normand P. Savaria gives us his insights [here](#).



INSIDER SERIES

08

Gap has committed to obtain 100 per cent of its cotton from more sustainable sources by 2021. Sister brand Athleta has pledged that 80 per cent of its apparel materials will be made with sustainable fibers by 2020. Wendi Goldman Sustainability Champion and Chief Product Officer at Gap Inc. tells us more [here](#).



Photo: West Point Homes



In our fiber portfolio we are looking beyond our base preferred fibers like recycled polyester, organic cotton, and hemp to continually increase material performance while lowering our environmental and social impacts. We take a holistic approach weighing all impacts, such as, raw material origin, dyeing and finishing chemistry, social and animal welfare in the supply chain, and land use. A few key areas of focus are a renewed push to expand organic cotton, grow our overall use of hemp, and supporting innovative recycling technologies.

Sarah Hayes

Senior Material Innovation & Development Manager,
Patagonia

“Walmart is pleased to join Circular Economy 100 to share our learnings and learn more from other companies so that we can better engage suppliers and customers. Achieving zero waste is one of Walmart’s three sustainability goals. The next frontier is to work closer with suppliers to encourage more circular design in products and packaging, and customers to help them maximize the value of products they buy.”



Laura Phillips

Senior Vice President of
Sustainability at Walmart

A woman with short brown hair, wearing a dark blue sleeveless denim dress, stands on a rooftop. She is looking back over her shoulder towards the camera. In the background, an American flag flies on a tall pole. To the left is a white concrete structure, and to the right is a brick wall with a metal fire escape. The city skyline is visible in the distance under a cloudy sky.

“People are more aware of where their clothing and food comes from these days. They want to know the story behind the product and that is part of their experience in buying it and owning it,” said Noorism CEO, Noor Zakka.



Unique Bluesign®-certified bio polymer fabric,
made from 100% resin oil from castor beans •
Castor beans grow in the wild, do not require
any additional watering, and do not compete
with food chain

SUSTAINABILITY THROUGH MATERIAL DEVELOPMENT

Sustainability is at the core of everything that they do or create. They are always striving for as sustainable a product range as possible, and as we discover new, more environment-friendly materials, we often re-invent our products by upgrading the materials used, if it means decreasing their environmental impact.



RECYCLED POLYESTER LEADERBOARD

Photo: Ioniqa

TOP 10 BY VOLUME	TOP 10 BY GROWTH	RACE TO THE TOP	100% CLUB
1	1	1	ARMEDANGELS
2	2	2 OUTERKNOWN	
3	3 OUTERKNOWN	3	
4	4	4 NORRØNA	LOOMSTATE
5	5	5	METAWEAR
6	6	6	mini rodini
7 WILLIAMS-SONOMA, INC.	7	7	
8	8	8 WESTPOINT HOME	
9 M&S	9	9	
10	10	10 EILEEN FISHER	

Top 10 By Volume: Top 10 brands/retailers using recycled polyester in 2016 by MT consumption • Top 10 By Growth: Top 10 brands/retailers that have made the biggest increase in uptake of recycled polyester in 2016 by MT consumption • Race To The Top: Top 10 brands/retailers who are closing the gap between their share of recycled and virgin polyester consumption. This category excludes companies who are using 100 per cent recycled polyester • 100% Club: Brands/retailers using 100 per cent recycled in their polyester portfolio. • The leaderboards are based on data submission to the Textile Exchange PFM Benchmark Program 2017.

Timberland Products Are Made From Recycled PET



Thread X Timberland
Delivering good with every fiber

CertainT[®] for r-PET



FLAKE IS CONVERTED TO RECYCLED PET PELLETS

At the recycling facility, plastic waste is sorted, cleaned, crushed/shredded, resorted and pelletized. SigNature[®] T molecular tag is applied to masterbatch pellets. CertainT verifies all tagged pellets.



EXTRUSION

These masterbatch pellets are processed through an extruder and transformed into fiber. SigNature T is embedded into the r-PET fiber during the extrusion process.



R-PET FILAMENT YARN SPINNER

Tagged r-PET fibers are spun into filament yarn, ready to be woven into fabric. CertainT verifies all tagged r-PET fiber before, during, and after manufacture.



WEAVE OR KNIT INTO R-PET YARNS

The tagged filament yarns finally take shape as they are woven or knitted into fabric to be used in various home textile products. CertainT verifies the tagged r-PET yarns.



MANUFACTURE INTO HOME TEXTILES

After passing the CertainT test, the tagged r-PET fabric is then cut and sewn into finished home textile products. CertainT verifies the tagged r-PET products.



RETAIL

Finished goods, bearing the "CertainT" label, arrive at retail where consumers, driven by a desire for quality and authenticity, can be assured of the integrity of their purchase.



ENJOY

Consumer enjoys the CertainT Certified product, where its authenticity has resulted in a product with proven sustainability and authenticity.

CERTAINTY IS ONLY A MOLECULE AWAY[™]

CertainT[®] For Consumer Goods

Assure Label Claims in Consumer Goods



Trackability



Transparency



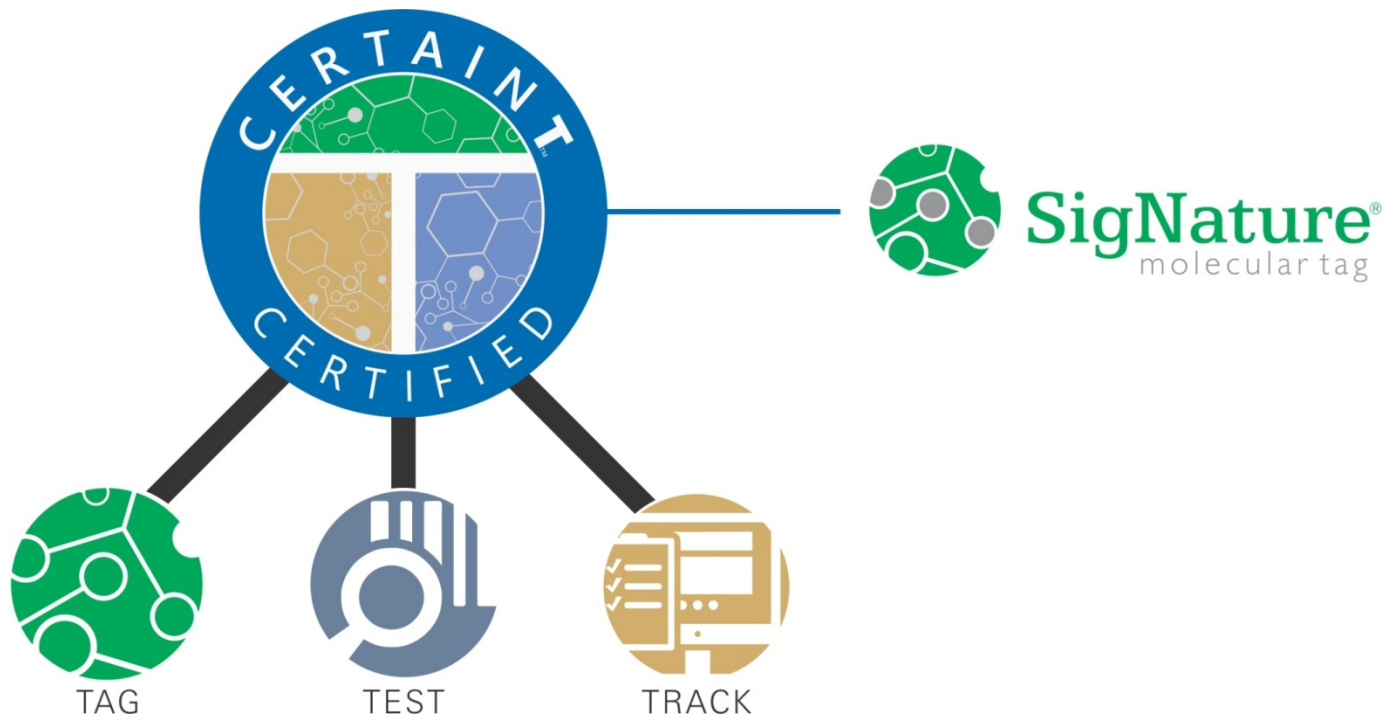
Assure in Content Claims in source materials



Traceability



The Essence of CertainT[®]

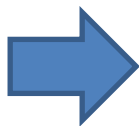




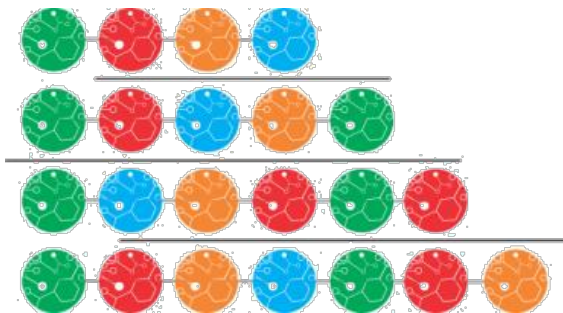
CertainT begins with Your Tag

What's Your Need?

Brand Protection
Provenance
Traceability
Origin
Sustainability



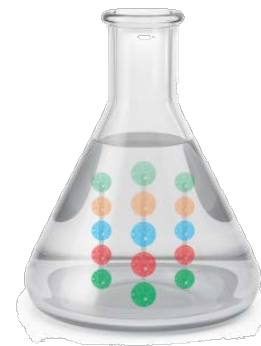
Unique Tag is Created



Short inert "A-C-T-G-
C-T-A-G" tag



Formulated at Parts per Billion Applied onto Billions of Fibers



Raw Fiber
Yarn

Finished
Goods

Packaging

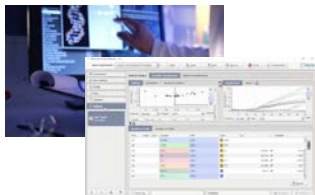


CertainT in the Lab and In Field

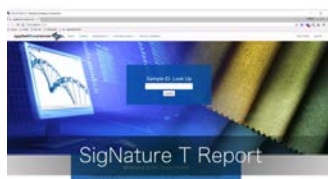
Testing in the Forensic Lab



Forensic
Scientist
Performs
Analysis



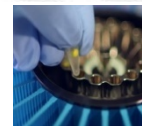
Test Results are
Compiled



Results are
Uploaded to
Secure Portal

Forensic Lab Level Testing follows ISO 17025 protocols

Testing In Field



Yes –No
Quick Test
Portable



CertainT in the Cloud



Tag



- Tag ID
- Spraying conditions
- Secure storage

Test



Desktop

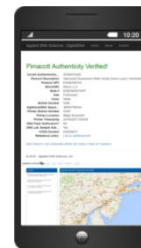


Portable



- SigNature T test gin cotton
- Supply chain sample submission
- Self-service reports and analysis

Track



Tell the Story...



- Mobile access
- Geolocation
- Timestamp
- Video links
- Consumer messaging

Traceability, Transparency and Trust



LOFTEX KNOWS CERTAIN^T

Unique, secure and steadfast
SigNature[®] molecular tags
verify textile supply
chain elements
with absolute CertainT.



Origin | Authenticity | Claims
Provenance | Quality | Ethics
Integrity | Sustainability

CERTIFY

TAG

TEST

TRACK

LEARN MORE

adnas.com/CertainT
meilin.wan@adnas.com

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Traceability, Transparency and Trust 

  **KNOWS CERTAIN^T**

Unique, secure and steadfast
SigNature[®] molecular tags
verify textile supply
chain elements
with absolute CertainT.



CERTIFY
Origin | Authenticity | Claims
Provenance | Quality | Ethics
Integrity | Sustainability



 TAG

 TEST

 TRACK



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