

December 2020 / January 2021

ECOTEXTILE

The environmental magazine for the global textile supply chain

NEWS

100th ISSUE

Our centenary edition



Turning the page

Textiles and sustainability post-COVID19

A-Team

The journalists who helped to set the agenda

Mind the data gap

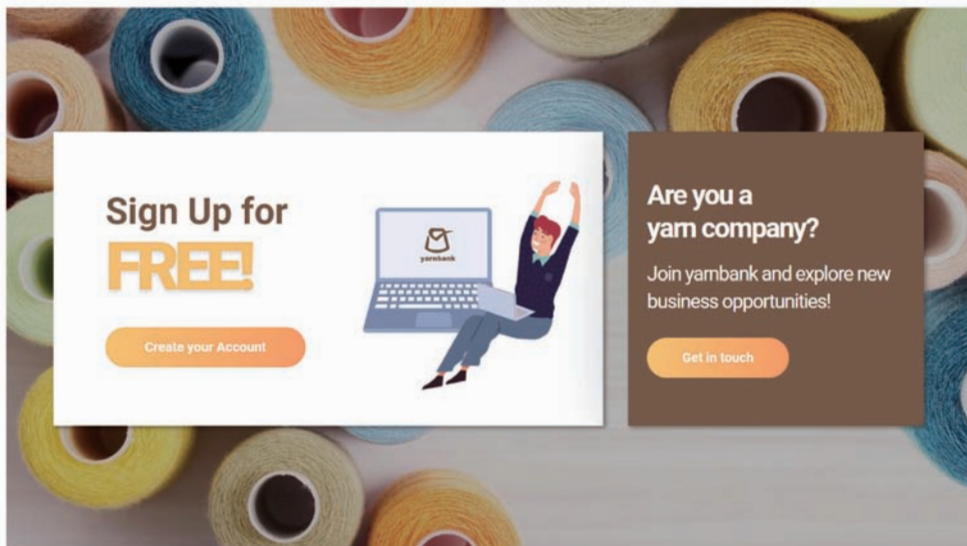
Why are environmental tools being powered by bad data?

Why Question Something SO GOOD, and SO FREE?!

It's been over 2 months since we launched **yarnbank™**—the world's first digital yarn sourcing website—and it comes as no surprise that hundreds have joined weekly to take advantage of its services. After all, where else can you search, view and download digitized data for the latest yarns from spinners around the globe? Where else can you source yarn data that makes your virtual samples* even more realistic because that data is based on actual yarn? Where else can you find yarn data that assures accuracy from design-to-product, because the yarn used for simulation is the same yarn you can purchase for actual knitting? And where else can you get all this FOR FREE?!



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New Day Rising

When the *Ecotextile News* website was launched back in December 2006, followed by the printed magazine in February 2007, I had no idea whether it would last a year, let alone more than a decade.

Fourteen years later, we've reached 100 issues of the magazine. It's a notable milestone and is thanks in large part to the fantastic writers and expert correspondents who have worked with me over the years (pp. 5 – 7).

A lot has changed in the textile industry during that time – and also in publishing. Social media was in its infancy when we first launched, Facebook was three years old and Twitter just six months, while LinkedIn was largely an online recruitment tool.

The current news media landscape looks very different to 2006. Unlike back then, you don't have to risk re-mortgaging your house to raise funds for a new website and the production, print and distribution of a new magazine to develop a global readership. Instead, you can simply use social media – risk free – to set up your project and immediately declare yourself an 'expert' or even worse: an 'influencer'.

This has been less of a concern in business-to-business publishing, the world in which we operate, but over the years as an increasing number of outlets have started to follow our lead on environmental reporting, we've noticed a distinct tendency to push either a grievance or greenwash, with facts skewed to represent a particular narrative. But this approach will not guide our industry towards more sustainable ways of working.

Back in 2006, no-one was writing solely about environmental issues in the textile sector, and my original idea was that by launching a publication, it would help readers – in particular brands and retailers – to guide their way through an emerging minefield of new certifications, claims and counterclaims around 'ecotextiles'.

With now over 50,000 subscribers and regular website users, I'd suggest we've met some of our original aims through the lens of traditional journalism – using talented writers coupled with industry experts to deliver news in both print and online formats.

Of course, we've extended our reach through various social media platforms along the way, but we're not stopping there. In the coming weeks we'll be launching an updated mobile news app for both Apple and Android platforms (see page: 15) and will be releasing more *Ecotextile Talks* 'Behind the News' podcasts, which are already available on Spotify, Apple, Google and eventually will also be on the Amazon platform.

Meanwhile, despite COVID-19 and the uncertainty around 'non-essential' industries such as fashion, the political support for a 'green-led recovery' has solidified across the globe during this health crisis – something that can only benefit those in our industry who've supported *Ecotextile News* over our first 100 print editions.

It feels strange, but even as we live in these dark times under the shadow of the virus, I'm actually more optimistic than ever that there's a green light at the end of this long tunnel.

Rather like back in 2007, the vision is there, but this time I sense a greater urgency for more rapid progress on sustainability in the textile sector.

Vigilance is still required though in the short-term, and we intend to provide plenty of that, but it's hard to argue for anything other than a green-led recovery over the next decade. There's simply no other alternative.

We'll be here to offer you news, guidance and advice on how to do that in the coming years – and thank you ever so much for continuing to support our work.

John Mowbray

2007



2010



2015



2020

Time and tide wait for no man!



Issue 100
December 2020 / January 2021

Image: © MCL News & Media

Cover story

10. Making headlines

Ecotextile News looks back at the industry's most defining stories.

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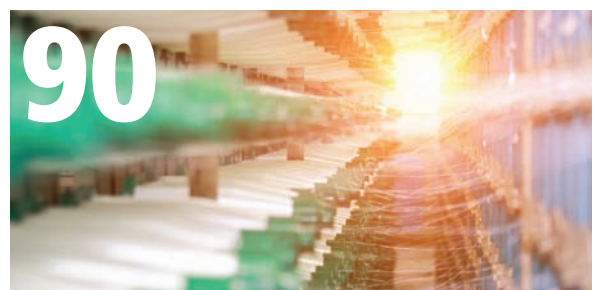
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Thanks to our editorial team

John Mowbray introduces you to our best and most valued contributors to *Ecotextile News* over the years, all of whom have been a pleasure to work with, and played their own part in moving the needle on environmental issues in our industry.

After nearly 30 years as a journalist, I've learned that 'content is king' and as a consequence, the success and respect for any publication is down to the quality, hard work and integrity of its writers and contributors.

Here, in our 100th edition, I thought it was only fair to flag up and say thanks to some of our most valued in-house writers and external contributors who've helped to bring you *Ecotextile News* over the past 14 years.



Chris Remington, Assistant Editor.

A talented, hard-working and industrious young journalist, Chris joined us as a news reporter soon after graduating with a degree in journalism from Sheffield Hallam University. With a keen eye for detail, he's the guy who spots all the typos and small proofing errors that most people would miss before we send *Ecotextile News* to press.

Prolific in his output, online readers will know that Chris is one of the engines behind the daily news website at www.ecotextile.com and particularly enjoys researching and writing

about new innovations in textile technology.

Within the last 18 months, Chris has been promoted to serve as the Assistant Editor of *Ecotextile News* and has developed into a cracking feature writer and a popular all-round contributor to the MCL team.

Simon Glover, Senior Reporter.

Regular readers will not be surprised to know that Simon is a national award-winning journalist. With years of experience of working in both print and online media, he was Head of News with the pioneering *Ananova* news website and a Senior News Reporter with the *Yorkshire Post* regional newspaper where he excelled with investigative reporting. Simon's also written for most UK national newspapers.

His coverage of human rights breaches for *Ecotextile News* in the Xinjiang cotton sector and issues around social and labour conditions in Bangladesh and beyond has made his work a 'must read' for many apparel brands and retailers. He was one of the brains behind our influential 'Busting Myths' feature in December 2019 which skewered the inaccurate claims that were being regurgitated about the size of fashion's carbon footprint. At 6'4, he's instantly recognisable, so watch out for him at post-COVID-19 trade shows and events around the world when the industry starts to resume some sense of normality.



Tony Whitfield, Reporter. Tony likes to hide his lights under a bushel but is a valued member of the MCL team and a thorough, experienced journalist. Working mainly in a part-time capacity these days, he's one of our most experienced journalists and has worked as a writer and broadcaster in sports journalism for many years. His skills include script writing, sports commentary and broadcast presentations for live radio as well as the written word. He's a valued writer for the *Ecotextile News* website and, as an accomplished musician in a local punk band, can also knock out a mean tune on the guitar.

Phil Patterson, Correspondent: Retail and Dyeing, Finishing and Printing. It's impossible to overstate the value that Phil brings to readers of *Ecotextile News* and he remains one of our most popular, consistent and loyal contributors. With a graduate degree in colour chemistry and formerly the Dyeing, Finishing and Printing Manager at Marks & Spencer for over a decade, Phil always brings a huge amount of credibility, inside knowledge and a dry sense of humour to his writing. Along with myself, Phil was a founding member of the short-lived but influential RITE Group (2007-2011), which ran international events on textile sustainability in London. It's always been a great pleasure working with him on the magazine and meeting him at international events where we often hook up together to cast a critical eye over 'new developments.'



Simon Ferrigno, Correspondent: Cotton, Climate Change and Agriculture. The author of the seminal *Inside Guide to Cotton & Sustainability*, *Cotton Horizons 2014* and *Due Diligence* report, Simon has a wealth of expertise on sustainable cotton projects and is a valued and integral member of the *Ecotextile News* team.

Fluent in several languages, Simon has been working on cotton and sustainability since 2000, with a focus on alternatives such as organic cotton and IPM as well as on researching the issues around cotton, notably the impacts of pesticide and insecticide use on human health and the environment in Africa. He has also consulted on new cotton start-up projects in Central Asia. His regular Cotton Horizons column has built up a very strong following among *Ecotextile News* readers – so much so, that he's now sought after as the 'go to guy' for a trusted, sensible and truly independent voice on cotton and sustainability. We feel lucky to have him as one of our key contributors.

Tone Tobiasson, Correspondent: Fashion, Wool, Scandinavia.

Based in Norway, Tone has been a regular, reliable and loyal correspondent from Scandinavia for around ten years. Enjoyable to work with, and with a BA in journalism from Stanford University, Tone is an outstanding journalist in her own right and is the former editor of various fashion publications including Oslo Fashion Week.

In addition to her role as a contributor to *Ecotextile News* – nowadays usually on the wool sector and regular regional updates on sustainability from Norway, Sweden and Denmark, she works on the dissemination of academic research and writing books.



Molshree Vaid, Correspondent: Retail and Fashion.

A relatively new, but very welcome addition to the *Ecotextile News* team, Molshree has made an instant impact with our readers by connecting the dots between fashion, retail and technology. A graduate of London College of Fashion with an MA in Fashion Futures, Fashion & Sustainability, she also has a background in marketing at Reliance Brands India where she looked after the likes of Brooks Brothers and Thomas Pink.

Molshree provides our readers with 'hands on' insight into sustainability at the retail level – and her 'secret shopper' feature on garment take-back programmes at London retailers was a fantastic introduction.

Pamela Ravasio, Correspondent: Europe.

Based in Switzerland, Pamela is one of our long-term correspondents who has been supplying content and news leads for nearly a decade. Multi-lingual and with a PhD, she brings a unique analytical yet creative approach to sustainability in our industry that's reflected in her feature writing.

Pamela was instrumental in helping to develop the original Sustainability Working Group at the European Outdoor Group, and is a highly experienced, global corporate responsibility expert who champions forward looking risk-management around sustainability and transparency. I look forward to her new feature ideas that are always very timely.





David Styles, Feature Guru and Cheerful Correspondent.

Formerly the assistant editor of *Ecotextile News*, David has always had a passion for the arts and reluctantly left MCL last year when his dream job as the Editor of an arts publication became available. However, he still retains a strong interest in sustainability and environmental issues – as well as the fashion industry – and provides us with a regular bi-monthly column which is always a joy to read.

Linda Greer, Global Fellow at IPE, Beijing, China, Environmental scientist.

Since 2010, when I first met Linda at an event in Shanghai, she's been a long-time sounding board of common sense when it comes to environmental science and its application to our industry. Formerly a Senior Scientist at the Natural Resource Defense Council (NRDC) in Washington, she brings a forensic understanding to the problems of textile industry pollution and has written brilliant commentary pieces for our readers over the years. The team are always impressed with her straightforward style.

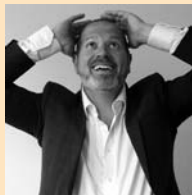


Miguel Sanchez, Expert in Denim and Textile Chemistry.

Whenever I get baffled about the complexities of denim production – it's a complicated business – I often reach out to Miguel Sanchez for clarification. He's written a few superb articles on the subject for *Ecotextile News*, and given he's spent over 30 years in the business, including major roles in the textile dyes and chemicals sector – it's always authoritative. Now a key figure in the Transformers Foundation, it's a great pleasure to still have Miguel on board as one of our expert correspondents. He takes an inordinate amount of time to answer my queries in great detail, for which I'm most grateful. He likes to play chess and bass guitar ... perhaps even at the same time?

Tim Wilson, Correspondent: Transparency and Supply Networks, Thinker.

Former founder and CEO of Historic Futures, Tim has a long-track record of innovative thinking when it comes to traceability in supply chains. I've known him since before we published the first edition of *Ecotextile News*, and he's always been a strong supporter of the work we do. In my view, Tim's often ahead of the game when it comes to achieving visibility in global supply-chains and production. We look forward to more insightful pieces from him in the years ahead.



Mike Schragger, Sustainable Fashion Academy Founder, Podcaster.

I first met Mike in London back in 2011 when he helped me to host a RITE Group event and we've stayed in touch ever since. He's worked for over two decades at the intersection between business, government and civil society to accelerate sustainability, and we often use each other as sounding boards for new ideas. This has included him delivering filmed interviews from Planet Textiles, while we work together to promote his excellent Big Closet Small Planet podcast. Be sure to check it out.

Honourable mentions – former staff we enjoyed working with

Tom Hinchcliffe. A whirling dervish of a journalist who could knock out a news story at the drop of a hat. Highly intelligent, he was always spinning several plates at once. He is now a political and media strategist for the Labour Party. Highly missed.

Stacey Dove. Stacey was the News Editor of *Ecotextile News* for six years before leaving the profession to work in the housing sector. A popular and reliable member of our team who left a big hole when she decided to leave.

Tommy Lee. Another popular member of the MCL team, Tommy moved to Hong Kong after working on *Ecotextile News* for three years and is now a communication officer for Disney in the region.

Adrian Wilson. Although no longer a regular contributor, Adrian was a much-valued reporter in the early days. He's now perhaps one of the most experienced freelance textile journalists on the planet! A kind-hearted friend, he only lives a few miles from the MCL office and he's always in touch as he writes for our magazine on sustainability in the nonwovens sector.

Deep Throat. There are several highly placed confidential sources at leading retailers, brands, NGO's and fibre suppliers and textile manufacturers who we cannot possibly reveal. They know who they are – and they know I'm always grateful for their wise words.

Adidas tops latest Human Rights Benchmark

LONDON – The World Benchmarking Alliance (WBA) has published its fourth Corporate Human Rights Benchmark (CHRB), assessing 230 of the world's most influential companies on their human rights disclosure. With scores determined in line with each firm's governance and policy commitments, human rights due diligence, and remedies and grievance mechanisms, some of fashion's leading names are both amongst the highest and lowest ranked. Out of a possible 26 points, Adidas set the standard with a total of 23 – followed by the likes of Marks & Spencer (21.5), Fast Retailing (19.5), Gap and VF Corp (both 18.5) – amongst the worst rated are China's Anta Sports Products, Kohls, Capri Holdings, Columbia Sportswear and Prada, all of which received scores of less than five.

"There is a concerningly large group of companies who have made little to no progress in the last 12 months," said CHRB lead at the Alliance, Camille Le Pors. Four Chinese apparel firms: Zhenjiang Semir Garment, Youngor Group, Heilan Group and Shenzhou International, are the only companies to score zero. "This lack of improvement is unacceptable, and these companies should be required to explain to investors, as well as other stakeholder groups, why their disclosures on such an important topic are so poor," said Marge Borhaug, global head of sustainable outcomes at Aviva Investors.

Web: bit.ly/2UBzwri

First speakers for summit on textile microfibres

UK – As the global apparel industry starts to get to grips with its contribution to pollution related to textile microfibre shedding, the first confirmed speakers for the debut Fibre Fragmentation Summit have been announced.

Senior research scientist Andy Booth from SINTEF, one of Europe's largest independent research organisations, will look at the UV degradation of synthetic textile fibres in aqueous environments, while Heidi Sanborn, executive director of the National Stewardship Action Council will talk about the current state of play with regards to US policy and legislation on

this issue. On behalf of the AATCC, Heather Elliot will examine testing methodology for fibre fragmentation and shedding, and Dr Jan Beringer from the Hohenstein Institute will outline the current understanding around the size and characterisation of fibre loss from textiles.

Held online over a four day period between March 23rd – 26th, 2021 – the Microfibre Consortium in partnership with Planet Textiles will focus on three key areas: Measurement: integrity and policy; Science: textile research and environmental impact; and

Product development: innovation, technology and manufacture.

The inaugural Fibre Fragmentation Summit 2021 is intended to provide a unique online platform, spread out over several days, to convene global apparel and textiles brands, supply chain partners, legislators, NGOs, academics and other thought leaders for the next round of cross discipline presentations, discussions and planning ahead.

If you're interested in sponsoring the event, get in touch at Lisa.King@microfibreconsortium.com for more information.

Web: bit.ly/3f4Epmg

UK invests £22.5m in circular research centres

LONDON – The UK government has announced that it will invest £22.5 million to establish five state-of-the-art research centres across England which will vie to reduce waste and boost recycling potential in industries including textiles, chemicals, construction and electronics. The 'Textiles Circularity Centre' will be led by the Royal College of Art and "aims to lessen the environmental impact of clothing by using household waste and used fabrics to develop new textiles, instead of relying on imported materials".



The UK government is investing in a Textiles Circularity Centre.

Environment Minister Rebecca Pow commented: "These new research centres will play a vital part in creating a cleaner and more sustainable economy, and help us to better protect the environment for the next generation."

The Interdisciplinary Circular Economy Centres are funded by the UK government as part of the UK Research and Innovation's Strategic Priorities fund. In addition to the UKRI Government investment, £11.2 million of funding and in-kind support is being provided by external

partners, as well as support from host universities.

"The better reuse and recycling techniques developed by these new centres – expanding the so-called 'circular economy' – will help to reduce greenhouse gas emissions, preserve natural resources and provide new opportunities for UK industries," a government statement said. "Research has shown that expanding the circular economy could create up to 500,000 gross jobs by 2030."

Web: bit.ly/3kLE35m

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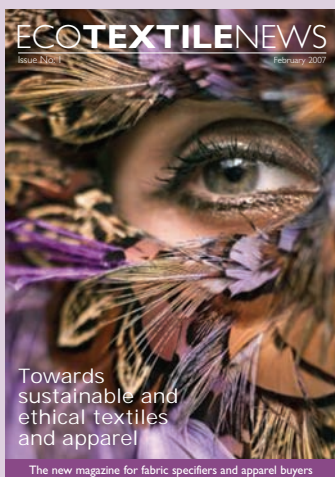
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Making headlines

John Mowbray reflects on some of the most influential issues of *Ecotextile News* that have been published over our first 100 editions.



February 2007

We can't leave out the very first printed issue that we published back in February 2007. It was given an instant welcome by over 400 advance subscribers before a single page was even printed. This proved our launch timing was right, after all, there was no-one writing specifically about environmental issues in the textile sector at that time.

Although just 36 pages, it covered stories on organic cotton, fibres derived from protein waste such as chicken feathers (keratin), organic wool, electrochemical production of indigo dyes, alpaca from Peru and we reported back from two very early CSR conferences – one in China – the other in Leeds.

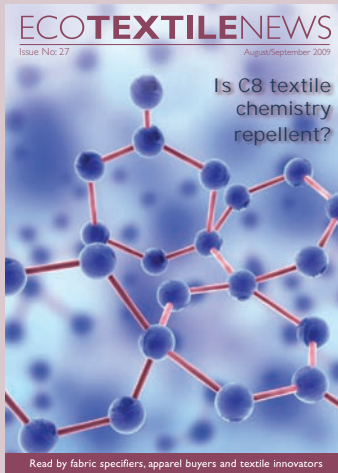
Early advertisers who greatly helped us to get the ball rolling were: DyStar, Historic Futures, ICEA, Control Union and the PrimeSource event in Hong Kong.

December 2007

The final issue of our first year in print helped *Ecotextile News* cement its reputation as an authority on technical and environmental issues. At the time, greenwashing remained largely unchecked on the fashion high streets of Europe and the USA – especially around claims made for fabrics made of bamboo fibre, often accompanied by clothing labels with pandas on them. Our cover story: 'Bamboozled by bamboo claims' uncovered how marketers of bamboo viscose (not natural bamboo), were making unsubstantiated claims about its natural, antimicrobial and biodegradable properties, when in fact some Chinese-made fibres were contaminated with heavy metals.

It was a story that was eventually picked up by national newspapers and even used in evidence by the US Federal Trade Commission (FTC) to prevent false claims in advertising.





August 2009

Ecotextile News raised fresh concerns about the use of C8 fluorocarbons in durable water repellent coatings in this issue – even before Greenpeace flagged up PFCs as chemicals of concern in its Detox campaign launched in October 2011.

It proved a popular story with readers at the OutDoor event in Salt Lake City where it was widely distributed and filled the editorial inbox with comments from concerned sportswear brands. It wasn't that we called for an outright ban on PFCs at the time, instead we called for a balanced and informed debate on the actual risk – and pointed out that shorter chain 'C6' chemicals were probably not the right way to go.

It was a feature which kick-started a sensible debate around the science on PFC use in our industry ... and stimulated many suppliers to revisit their PFC-free chemical inventories after requests from retailers.

December 2010

Our major scoop in this edition of the magazine was the formation of the Sustainable Apparel Coalition – a story that we broke based upon a chance conversation between John Mowbray and Patagonia founder Yvon Chouinard at a Textile Exchange event in New York.

Chouinard told us that plans for a major coalition of brands and retailers were underway to produce an “eco-index for consumers so that they can instantly identify the sustainable credentials of clothing”. It was expected to be formally launched in January 2011 – although we reported it first in this issue.

The story - confirmed by a rather flustered executive at fellow SAC founding member Wal-Mart – became one of the most read online news items that we've ever published on our website.

Our story was later picked up by the national media, glossy magazines and the rest of the fashion business press.



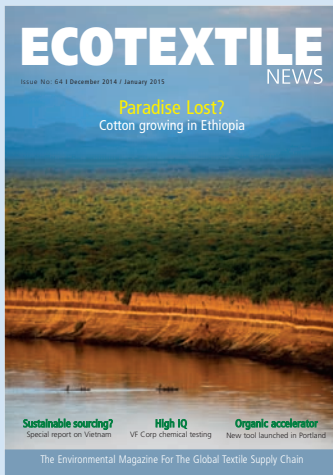
October 2011

We were fortunate to be in attendance at a small gathering in a Barcelona hotel in September 2011 when Greenpeace formally announced that it was launching its influential Detox Fashion campaign.

It was yet another notable scoop for us, but we remained sceptical about the 11 chemicals of concern that Greenpeace chose to focus on. Instead, we called for it to widen its focus to other areas of our industry that we knew had much bigger environmental impacts – the unregulated discharge of salt into rivers from cotton dyehouses, for example.

At the meeting, Greenpeace called for the zero discharge of hazardous chemicals in the textile supply chain by 2020 – which we said wouldn't happen. One famous quote from us was: “The only way zero discharge could be achieved by 2020 was by the industry closing its operations on the 31st December 2019.”

We broadly welcomed the Greenpeace move though, and it's now-shelved campaign without doubt had a very positive impact on efforts to clean up our industry.



December 2014

Our cover story about the destruction of pristine bushland in Ethiopia to make way for a huge organic cotton plantation was perhaps one of the most grotesque that we've ever covered.

We revealed that local tribes were being driven off their ancestral homelands to make way for bulldozers to flatten 10,000 hectares of biodiverse land in preparation for a new cotton farm to supply leading European retailers.

The cruel irony was that it was going to supply certified organic cotton. Our story, accompanied by on-location witness accounts, photography, satellite images and details of business contracts led to retailers such as H&M and Tchibo pulling out of sourcing cotton from the region.

The Turkish company behind the project eventually pulled out too – but not before we heard a parting shot from their lawyers. Thankfully, our story was 100 per cent accurate.

August 2015

John Mowbray was passed a pre-print paper from a former colleague at Elsevier Science in April 2013 on how textile microfibres were shedding from garments during laundering and were contributing to the 'microplastic pollution' problem that was starting to make international headlines.

The news item we published at the time, said scientists at Plymouth University in the UK found that "rayon made up over half of the polymers identified (57.8 per cent)" from samples collected in fish guts, but no firm ties to textiles were 100 per cent proven.

And it wasn't until this issue of the magazine in 2015 that we could really lift the lid on the extent of the role textiles do play in microfibre pollution found in waterways – and it highlighted newer scientific research that showed how fibres found in aqueous environments are not all 'microplastics' or synthetic fibres such as polyester – but are indeed derived from textiles.

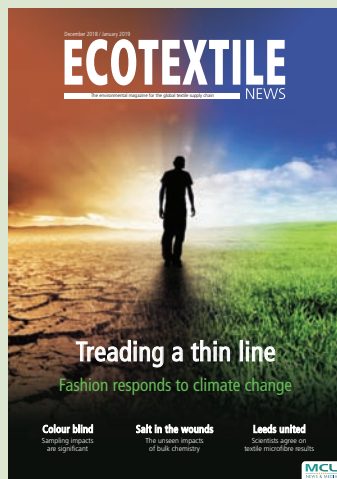


December 2018

In this magazine we blew the lid on a widespread, but hidden source of textile chemical pollution that had been seriously overlooked by the industry in the wake of the rush to satisfy the relatively narrow demands of the Greenpeace Detox campaign.

The culprits? Bulk commodity chemicals, such as salts, soda ash, organic and inorganic acids, peroxide and caustic soda that are widely used as aids to wet processing (dyeing and finishing). These commodities are often by-products of other industries and can be laced with potentially hazardous substances.

The ZDHC has said these commodities could represent up to 90 per cent of chemicals found in textile effluent and the discovery that they are often heavily contaminated is likely to solve some of the confusion around the presence of restricted chemicals in effluent that were not present in any factory formulations. A screening tool has been rapidly developed over the past few years, but it's only just coming on-stream now after pilot testing (see p66).





February 2019

One of our most talked about magazines in recent years questioned the issue of true fashion industry circularity and whether it was just another marketing term for greenwash enthusiasts.

We asked: “If the meaning of a word, in this case circularity, cannot be consistently defined by those who use it, does it actually carry any meaning at all?”

It provoked a furore of comment from those marketing circularity claims for some products. And while progress has been made and legislators are eyeing up ways to mandate new circular ways of working ... we're still waiting to hear about that true definition and are yet to see a perfect circle in action.

December 2019

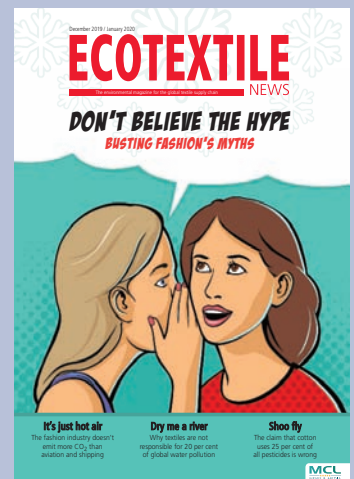
We debunked some serious myths in this issue after seeing the same claims being regurgitated about the global carbon footprint of fashion, the contribution of the textile industry to wastewater pollution and the use of pesticides and herbicides in cotton farming. Essentially, we ruled out the following statements as myths:

- Greenhouse gas emissions from textiles are greater than the combined GHGs of international flights and maritime shipping.
- The textile industry is responsible for 20 per cent of the world's water pollution.
- 25 per cent of the world's pesticides are used for growing cotton.

We found no evidence to back up any of these statements – much to the chagrin of those that had been repeating these mantras.

Our work on this issue has been widely quoted in newspapers, glossy fashion publications and various blog posts (often unattributed).

Although our story was most recently referred to by the *Financial Times* on 13th November 2020 – but once again we were not credited with the original journalistic legwork. Disappointing.



December 2020

I couldn't *not* include our 100th edition of *Ecotextile News*. It's a proud milestone for us and its success is very much down to all the trusted journalists, correspondents and experts who've contributed so much to this magazine over the years (see p6). Fittingly, this issue is more than 100 pages long – and we could have made it even bigger. A far cry from the early days when it was a struggle to fill just 36 pages when the move towards sustainability was still in its infancy.

We've made a special effort to cover a wide range of topical environmental and social issues in this issue for you to enjoy – always digging that bit deeper than others and drawing on years of expertise in science, technology and the knowledge of how the textile industry actually works on the shopfloor and behind the scenes of the buying office.

We've never been a campaigning publication. We're not activists. But over the past 100 issues I'd like to think this platform has changed quite a few mindsets, which ultimately has helped to improve how textiles are sourced now and how they will be in the future. *Enjoy the read!*



Take a closer look at cotton, *to find the right partner in sustainability.*

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Appy days!

MCL News & Media launches news app for iOS and Android smartphones.

This December, MCL News & Media is excited to launch an all-new smartphone application for both Apple and Android devices, as we look to bring the latest industry news to your fingertips.

Subjected to months of intensive development work, we're bringing to the fore a reimaged, intuitive and all-encompassing news platform that pools the latest news not only from *Ecotextile News*, but also its sister publications *Knitting Trade Journal*, *Sustainable Nonwovens* and *Textile Evolution*.

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Having been streamlined to meet the needs of our on-the-go subscribers, users will soon have the opportunity to download the app free-of-charge – whilst those with the existing app can simply launch an update – in order to access the very latest content.

When online, users can choose from our reel of breaking news and will have the options to change the font size, search for key words and share content via messaging services or social media.

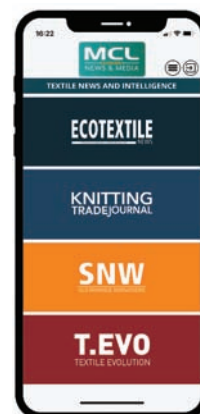
A separate 'popular' category compiles the stories which are trending (to the second) amongst others in industry, whilst a more tailored experience can be attained by bookmarking articles of interest.

Instant access to our print magazine's exclusive content is also available, with users able to either click the 'features' category for more in-depth pieces, or swipe through our unmatched library of archived magazines – which can then be read in an optimised, smartphone-friendly format.

If podcasts are your thing, we've got you covered too. Harnessing our long-standing partnership with Sweden's Sustainable Fashion Academy – which produces the popular *Big Closets*, *Small Planet* podcast



▲ With smartphone-optimised articles, users can adjust the font size, bookmark content and share it online.



▲ The app will host content from Ecotextile News, Knitting Trade Journal, Sustainable Nonwovens and Textile Evolution.

– subscribers benefit both from weekly summarised stories of the latest listenings as well as a direct link to the uninterrupted audio.

With the importance of breaking news placed sharply in focus this year in particular, MCL News & Media is keen to bring its subscribers the swiftest, most reliable and user-friendly service on the market, that's backed up by thousands of industry-focused articles exploring the world of textiles as it continues to evolve. ■

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▲ Workers harvest cotton in China's Xinjiang region.

Force of habit

The Better Cotton Initiative has come under fire over its role in the Xinjiang region of China amidst fears its 'better cotton' has been tarnished by the use of forced labour. But, as it looks to the future, it says lessons are being learned.

Simon Glover reports.

The Better Cotton Initiative (BCI) appears at times to have lacked urgency in its response to growing outrage over the reported use of Uyghur Muslim prisoners as forced labour in China's Xinjiang region. Brand after brand has distanced itself from the area, while the US has moved to block imports from the region over fears that Uyghur people, detained in what is said to be the largest mass incarceration since the holocaust, are being forced to work in the cotton industry. But the BCI has seemed slow out of the blocks.

Earlier this year, it suspended its activities in the region and appointed an independent task force to review its policies on 'decent

work' but it remained active in Xinjiang until October. And when it finally did pull out of the region, its public comments gave the impression that it could hardly wait to resume operations in Xinjiang which provided a fifth of its 'better cotton' and an even larger slice of global supplies.

However, Damien Sanfilippo, the BCI's director of standards and assurance, insists that forced labour remains a major concern for the organisation and that it will not be returning to the region any time soon.

"We need to be clear that forced labour is absolutely unacceptable for BCI. The reason we work in China, and many other places, is that our aim is to transform the whole sector.

Our mission dictates that we often work in challenging environments, and we do that on purpose," he said.

"The most important question for us is whether or not we have the confidence that we can create positive change, we can benefit cotton communities and the environment, while running a credible programme.

"Now when it comes to the future, we are only going to consider going back if, and only if, that environment improves and gives us the full confidence that we can be a positive force for good. This is not the case right now."

Sanfilippo said that the BCI took note of the UN Guiding Principles on Business and Human Rights which required it to only disengage from a region as a last resort.

"We've been very careful not to rush into a decision," he said. "So that's why we've been acting responsibly, taking decisive action at the right time but not rushing it."

Earlier this year, the BCI raised eyebrows when it said it would remain active in Xinjiang despite a member of its own council, Huafu Fashion Co Ltd, being implicated with the use of forced labour by Muslim prisoners.

It also emerged that the Xinjiang Production and Construction Corps (XPCC) - a paramilitary economic organisation described as a "state within a state" - had been a BCI member and implementing partner, although this relationship was terminated in January.

The BCI appointed an independent task force to review the role of its

“We need to be clear that forced labour is absolutely unacceptable for BCI

Damien Sanfilippo

Better Cotton Standard System in identifying, preventing and mitigating forced labour risks.

That task force of 12 experts was delayed by the pandemic but finally reported at the end of October with some pretty damning comments about the BCI which it said was guilty of “organisational blindness” on forced labour.

It concluded that the BCI had given the treatment of workers a “comparatively lower degree of focus and investment” than environmental issues but said it now had an opportunity to put that right.

However, it warned the BCI first needed to “address significant existing gaps” in awareness, competencies, and processes on decent work which it said extended “across the BCI organisation, governance structure, and partner network.”

“In the view of the task force, they have resulted in organisational blindness to important risks and realities related to forced labour and likely other decent work issues,” said the report.

Sanfilippo responds: “We know that better, more innovative tools and strategies need to be put in place. We agree that more work needs to be done, which is why we convened that taskforce.”

“The fact is I don’t think many of these tools have yet been designed or rolled out at large scale, especially in the informal farming sector where we work, so we know that we need to pioneer new tools.”

In the short term, the BCI plans to beef up its risk

assessment of forced labour and increase the due diligence requirements of its implementing partners in time for the next cotton season.

Sanfilippo added: “We recognise being able to implement the full set of recommendations from the task force will be a much longer term endeavour and I think the taskforce recognised that as well.

“Which is why next year we’ll be looking for dedicated funding opportunities. We’ll be looking for partnerships with like-minded organisations so that we can start imagining and building the innovative and pioneering tools that we need.”

The BCI announced its decision to finally pull out of Xinjiang one week before the release of the task force’s report which, to its credit, was published in full on its website.

But, even then, it appeared less than whole-hearted. The one quote released by the BCI, attributed to CEO Alan McClay, gave the impression that the initiative could hardly wait to return to Xinjiang.

“We look forward to the day when we can again deliver the BCI mission by providing capacity building for all farmers. We will re-evaluate our engagement in the XUAR when the operating environment permits,” said McClay.

The BCI also said that Chinese companies “from or affiliated with the province” that were not specifically blocked by current US Treasury Office of Foreign Assets (OFAC) sanctions could remain BCI Members



▲ A Uyghur woman is shown how to prune cotton on the cover of a 1960 issue of China Pictorial magazine.

- An overall ‘rebalancing’ on decent work issues
- Strengthening internal expertise on forced labour
- Defining the ‘enabling environment’ needed for BCI operations
- Acknowledging the realities of state-imposed forced labour
- Adopting a risk-based approach at local level
- Strengthening due diligence for implementing partners
- Introducing significant innovations in assurance
- Developing grievance mechanisms, including at field level
- Supporting efforts to review the BCI’s chain of custody model

and continue to use the Better Cotton Platform.

That seemed some distance from the task force’s position that “BCI cannot undertake any form of field activities in the Xinjiang Uyghur Autonomous Region, and must immediately end all forms of operations and end all business relationships in the region”.

The task force made **nine specific recommendations**

to the BCI. It also noted that the BCI’s mass balance system posed much higher risks in terms of ensuring that final products were free of forced labour than a physical segregation cotton system.

“The task force recommends that BCI takes steps to develop a physical segregation model and is eager to collaborate and support in this work,” it said in the report.

Corin Wood Jones, the BCI’s head of special projects, said the mass balance system had proved “tremendously effective” in terms of engaging brands – and farmers – with the production of more sustainable cotton.

He added: “As it stands, there is a very strong case for us to retain the mass balance model but we are already putting in place teams to focus on feasible options going forwards for full physical traceability.”

The BCI Council and Management Team has agreed to carefully consider the task force’s findings and recommendations “through the lens of the BCI’s 2030 strategy”. They promise to share a detailed response in January 2021. ■

A cut above

Environmental non-profit Canopy has revealed its 2020 Hot Button rankings.

By Chris Remington

Not-for-profit Canopy has published its annual rankings of viscose suppliers around the world, which assesses each company's performance to protect ancient and endangered forests, in-line with audits, contributions to conservation, the use of new alternative fibres, robust sourcing policies, transparency and traceability, and sustainable sourcing.

The environmental group's list of suppliers this year shows a significant jump in the volume of man-made cellulosic fibre (MMCF) manufactured by producers with 'green shirt' rankings, with these companies now accounting for 52 per cent of quantities globally, up from 42.5 per cent last year.

It's telling of the global industry's push to align with the Canopy initiative that this year's rankings include significant firsts – Aditya Birla and Lenzing both obtaining the elusive 'dark green' shirt for scores of 33 and 30.5, respectively.

This announcement comes at a pivotal time as a majority of the 320 brands

in the CanopyStyle initiative, which it says have combined revenues of more than US\$570 billion, are implementing their commitments to only source from producers ranked with green shirts. The likes of H&M, Inditex, Levi's, Stella McCartney and Amazon are amongst the big-name brands now holding their suppliers to task.

Though Aditya Birla and Lenzing might steal the headlines for their efforts, there is also acknowledgement of those which obtained the Canopy green shirt ranking: Eastman, ENKA, Formosa, Jilin, Kelheim, Tangshan Sanyou, Xinxiang Chemical Fiber and Yibin Grace.

Canopy reports that 90 per cent of the global production capacity now stems from businesses with an active Canopy-approved public sourcing policy. What's more, producers are increasing their investments in Next Generation alternative materials with findings highlighting that four out of five of the biggest viscose suppliers have **now invested** 'significantly' in such advanced solutions.

The results

- Aditya Birla **33**
- Lenzing **30.5**
- Eastman/ENKA **26**
- Kelheim Fibres/
Tangshan Sanyou **25**
- Acegreen **8**
- Asia Pacific Rayon **5**
- Xinjiang Zhongtai
Textile **5.5**
- CTHC Helon/
Shandong Yamei **3.5**

Tangshan Sanyou has secured a deal with innovative textile recycler Renewcell and will purchase 175,000 tonnes of its 'Circulose' dissolving pulp over the next five years.

In terms of the scope for improvement, the findings of this year's Hot Button rankings show the 'red shirt' recipients to be: Silverhawk, Aoyang Technology, China Textile Academy, Shandong Yamei, CTHC Helon and Xinjiang Zhongtai Co.

Those which obtained the 'red/yellow' shirt included both Sateri and Asia Pacific Rayon, of the RGE Group, as well as Mitsubishi Chemical Corporation and Nanjing Golden Antelope Biobased Fibre Co.

For the first time, this year's rankings factored in scores for chemical management performance, with Frank Michel, executive director of Canopy partner organisation ZDHC, saying: "Embedding chemical use and emissions criteria in Canopy's Hot Button report adds value for all who want to understand concrete solutions in the viscose supply chain."

It will be of concern then to both customers and all the suppliers involved that the scores – out of a possible four – were low across the board. The best of the bunch were the 'dark green/ green shirt' recipients Aditya Birla, Lenzing, Eastman, ENKA, Jilin, Kelheim, Tangshan Sanyou and Xinxiang Chemical Co., which all mustered scores of one.

Both RGE brand APR and Sateri also scored one out of four. The rest in the rankings earned a mark of zero.

Looking ahead then, whilst it bodes well that more than half of global viscose supplies now stem from 'green shirt' accredited businesses, surely performance on the chemical management front will be the next area to focus on. ■



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worn

it's
born

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PETA reaffirms calls for mink farm bans

COPENHAGEN – Animal rights organisation PETA has warned that “any area that still farms mink could well be the next Wuhan”, after Danish authorities made the decision to cull millions

of mink, some of which are riddled with what’s believed to be a new mutated strain of the coronavirus.

Denmark’s Prime Minister has given the green light for upwards of



Any area that still farms mink could be the next Wuhan, says PETA director Elisa Allen.

17 million mink to be killed in the country; this, after 12 people tested positive for a new strain of the coronavirus, which it’s feared could be resistant to vaccines currently under development.

PETA director, Elisa Allen, has however reaffirmed that culling animals is not an effective long-term solution, and says: “Denmark must ban these pandemic petri dishes immediately.

“Fur farms packed with sick, stressed, suffering animals are revolting places – they are dangerous breeding grounds for diseases and have been identified as COVID-19 hotspots,” she told *Ecotextile News*, urging governments to ban mink farming.

She continues: “While national governments – including those of France and Poland – have taken decisive action in recent months to ban mink farming, it’s clear that this is a global issue that puts people around the world at risk, which is why mink farms must be banned everywhere.

“Any area that still farms minks could well be the next Wuhan. This is, in part, why PETA France recently called on the French government to enforce its ban on mink farming immediately, rather than in 2025 as planned,” she concluded.

Web: bit.ly/2UeReko

WRAP unveils ‘Textiles 2030’ initiative

LONDON – UK waste recycling charity WRAP has announced the first batch of companies and organisations to join its Textiles 2030 voluntary initiative, with Next, Primark and John Lewis amongst the retailers to have pledged their allegiance ahead of its April launch.

By aligning with the Textile 2030 programme, WRAP says fashion firms have the opportunity to pivot their operations from a linear make-use-dispose model to one which is circular, and champions a ‘target, measure and act’ approach.

“Textiles 2030 will be the most ambitious national voluntary agreement for clothing and other textiles in the world. The 10-year programme aims to transform UK clothing and home fabrics to reduce their impact on climate change,” a WRAP statement said.

The ambition is to involve as many brands, retailers, NGOs and charities as possible across the industry to spark tectonic shifts to the way apparel is produced, used and subsequently discarded of, due to the immense pressure current practices have on landfill sites.

“The climate emergency is intensifying, and our resources are limited,” says Marcus Gover, WRAP’s CEO. “We need fast, effective action more than ever.” Amongst the first batch of recruits for the Textiles 2030 initiative are the British Fashion Council, British Heart Foundation, Cancer Research UK, John Lewis & Partners, Next, Oxfam, Primark, Ted Baker, Textiles Recycling Association and Tesco.

Web: bit.ly/2Ucvi9l

Lenzing rolls out blockchain-enabled platform

LENZING – Textile fibre manufacturer Lenzing has announced the introduction of its highly-anticipated supply chain transparency platform, powered by blockchain specialist TextileGenesis, which it will first roll out across Southeast Asia.

The technology, in practice, has been trialled by Lenzing and has proven an effective product authentication mechanism, with a digital chain-of-custody being created for transactions that are immutable to change.

“Sustainability and traceability are two sides of the same coin, and it’s great to see Lenzing paving the way for the entire fashion industry to follow,” said TextileGenesis’ CEO, Amit Gautam.

Lenzing will integrate its

e-branding fabric certification system, enabling brands and retailers access to information on the traceability of its Tencel and Ecovero fibres, as well as affording them the opportunity to view the results of forensic verification of fabric samples. Having found the tool to be reliable, serving as a stamp of approval that its products are authentic when they reach the customer, Lenzing and TextileGenesis have now made the platform live and will first roll it out across Southeast Asia in India, Bangladesh, Pakistan and Sri Lanka, with upwards of 300 suppliers being on-boarded. Then, from the start of next year, it will broaden this scope to encompass supply chain partners in both China and Turkey.

Web: bit.ly/2Ufvbtp



**Viscose from
renewable plantations
that protect nature**



Restorasi Ekosistem Riau (RER) is a conservation programme by APRIL, a supplier to leading viscose manufacturers, Sateri and Asia Pacific Rayon.

A 150,000+ hectare restoration and conservation site in Sumatra, Indonesia, RER is a sanctuary to 600 species of plants and wildlife, including critically endangered ones. It represents one of the last and largest remaining tropical peat forests that store vast amount of carbon.

RER demonstrates the viability of a production-protection model that supports socio-economic development as well as forest conservation and restoration. RER is ring-fenced by renewable plantations to deter illegal logging and land encroachment while communities join in the partnership to use natural resources sustainably.

Read latest RER report here:



RER PARTNERS



Fashion's elusive footprint...

Nobody denies that fashion has a carbon footprint problem - the trouble is nobody seems sure how big it is. Simon Glover reports on a new bid to put a number on the fashion and textile sector's Greenhouse gas emissions.



Bigger than the UK, Germany and France put together? More than aviation and maritime shipping combined? Eight per cent of all greenhouse gas emissions? No, wait, four per cent of the global total?

So, how big is the carbon footprint of the global fashion and textiles industry? All of the above have been suggested by credible organisations over the last year or so to highlight the one thing that they all agree on – that the sector has a serious problem.

One recent report, *Fashion on Climate*, from the Global Fashion Agenda initiative and consultants McKinsey & Co claimed that

“**The sooner we can get something as accurate as possible, the better**

*Michele Zollinger,
Quantis*

fashion was responsible for some 2.1 billion metric tons of GHG emissions in 2018, about four per cent of the global total.

That estimate was based, in part, on the 2018 *Measuring Fashion* report by consultants Quantis which, confusingly, put the figure at eight per cent.

McKinsey also contributed to another report, the Ellen MacArthur Foundation's *A New Textiles Economy: Redesigning Fashion's Future*, which controversially claimed GHG emissions from textiles were more than those of all international flights and maritime shipping combined – a widely quoted claim debunked earlier this year by *Ecotextile News*.

Linda Greer, a Global Fellow at the Institute for Public and Environmental Affairs in China, recently called on Quantis to publicly clarify the proper use of the numbers in its report.

We put this to Michele Zollinger, senior sustainability consultant at Quantis, who accepted the need for more scientific data while stressing that the key issue was to encourage the fashion industry to move forward in the right direction.

“When we saw the report from the Global Fashion Agenda and McKinsey, we very much welcomed it. It's exactly the next type of report that is needed for this space where we can

focus on actions and how we act to reduce (emissions)," she said.

"One of the big challenges in the apparel industry is having the data. That's been the challenge for a long time. Our report was not intended to be a peer-reviewed scientific study and I want to very clearly clarify that."

However, she agreed that more accurate data was needed, adding: "The sooner we can get something there that is as accurate as possible, the better. Quantis and other organisations are continuously working on this. In the meantime, we're working with what we have."

Which brings us to *Roadmap to Net Zero*, a new draft report from the World Resources Institute and Apparel Impact Institute, supported by the Laudes Foundation.

In collaboration with the Sustainable Apparel Coalition (SAC) and Higg Co, it aims to get a better idea of the sector's carbon footprint by combining fibre weight data from the Textile Exchange with the resources of the Higg Materials Sustainability Index (MSI) tool.

By doing so, it has come up with a new figure - a total of 1.39 gigatonnes of carbon (GtC) emissions for 2019. This compares to the Ellen MacArthur Foundation's 1.2 GtC, Quantis's 3.29 GtC, and the 2.1 GtC estimated by the Global Fashion Agenda and McKinsey.

Roadmap to Net Zero's estimate is further broken down to help companies identify where within the industry's notoriously convoluted supply chains

23% of emissions are said to be in Tier 4 (raw material extraction), 16% in Tier 3 (raw material processing), 45% in Tier 2 (material production), and 16% in Tier 1 (finished production assembly).

The report identifies six ways the apparel sector might meet the Paris Agreement target:

- maximising material efficiency
- scaling the use of preferred materials
- accelerating the development of next generation materials
- maximising energy efficiencies in manufacturing
- eliminating coal
- switching to renewable energy

“All of these studies – including the one we just did – are imperfect

*Michael Sadowski,
WRI*

lie the **biggest problems** and to suggest some **key interventions**.

Michael Sadowski, a research consultant with the World Resources Institute (WRI), stressed that the new report was still based on secondary data but he hoped it would ultimately prove more useful than other recent estimates.

"All of these studies are based on secondary data," he said. "They make a variety of assumptions and extrapolations. I would just say they are directional at best, they're not at all scientific based."

"I don't think anyone is questioning Quantis or McKinsey as being ill-meaning in any way, I think they are truly trying to understand what the impacts are. But the state of data is just so incomplete and so imperfect that it is truly hard to do."

"The only way I see how it's going to get better is if we use more primary data. So over time for factories and mills, the more data that gets into Higg the better, because that's primary data."

Sadowski said part of the problem was that the complex nature of global supply chains in the apparel industry made a peer-reviewed scientific study of greenhouse gas emissions virtually impossible.

"You're dealing with hundreds of thousands of individual facilities, a lot of them don't have the means to track things like fuel consumption and energy, and then as you further move upstream you're getting into things like emissions from cotton

farming, emissions from extracting oil out of the ground to make polyester," he explained.

"But the goal is that, over time, more of that data becomes primary. And this is enormously complex. Frankly, I think the apparel sector is much further along than any other sector in terms of impact data."

"I don't know of any other sector that has the equivalent of the Higg Index. And again it's not perfect, but I just don't see anyone else that has this level of supply chain data."

Sadowski added that the imperfect nature of the available data made comparisons between industries meaningless: "There's never been a study that looks at every sector in the world using the same analysis, the same methodology, the same data sets, and the same approach," he added.

"Any time you compare sectors like this you need to use the same approach and I don't think that will ever be done, it's just so difficult. So I think all of these studies – including the one we just did – are imperfect."

"Is that a problem? I'm not sure it is to be honest. I think people are competing to get headlines, to get attention. But we know that to deliver science based targets and to stay within 1.5C, we have to decarbonise every sector."

"It doesn't matter whether that's 0.5 per cent, five per cent or ten per cent. Every sector has to get to zero by 2050. The apparel sector is part of that and so we have to decarbonise in the same way." ■

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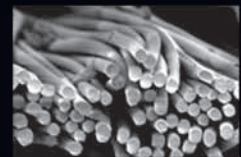
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Fine denier and bright polymer fiber with soft touching and elegant luster

Politics back in fashion

The UK government's Environmental Audit Committee is to hold another inquiry into the environmental and social impact of the fashion industry. But will it have any more impact than its predecessor?

Simon Glover reports.

Back in 2018, Mary Creagh MP – then chair of the Environmental Audit Committee (EAC) – accused senior politicians of “not listening” after Theresa May’s government rejected all 18 of the recommendations of her inquiry, *Fixing fashion: clothing consumption and sustainability*.

Creagh’s successor, Philip Dunne, now hopes that a new inquiry into the industry, under his stewardship, will prove more successful. So what has changed in the intervening two years?

Dunne told *Ecotextile News* that one key change was the impact of the coronavirus pandemic which had served to focus minds – in the fashion sector and more widely – on sustainability issues and the need to ‘build back better’.

The recent controversy over



the treatment of workers at factories supplying fast fashion companies, particularly Boohoo, and the ensuing inquiry by Alison Levitt QC into Boohoo’s sourcing policies, had also raised awareness of the shoddy and often illegal treatment of garment workers.

Fashion’s waste problem – the millions of tonnes of garments thrown away every year with a third of this going into landfill – was another factor with the government currently consulting on extended producer responsibilities which would make brands responsible.

“One of the reasons that we’re doing this again is because we were disappointed at what happened last time. It seemed to us that there was enough going on to merit taking another look to see what progress has been made,” explained Dunne.

“I think there is another major difference now compared to when we did our inquiry two years ago. And that is that we are hosting COP26 in 12 months’ time which is going to shine a spotlight on the opportunity for Britain to show global leadership in tackling climate change.

“That is going to be a trigger for a substantial amount of government action between now and then, so that the

Prime Minister can show that Britain is giving the international leadership on this issue that he would like to claim.”

The EAC has finished gathering evidence for its latest inquiry and is currently processing this. It also plans to hold an oral evidence session in December at which, Dunne confirmed, Boohoo will be invited to attend.

He is hopeful that greater enforcement of existing legislation, such as the minimum wage, can play a part in improving conditions for workers in garment factories in UK cities such as Leicester.

The new inquiry will take in a wide range of issues from the carbon footprint of the fashion and textiles industry to what can be done to improve the collection of fashion waste and to increase recycling.

It will also consider the impact of the coronavirus pandemic on the troubled relationship between retailers and suppliers, and how employment law and the minimum wage could be more effectively enforced.

“Industry needs to step up and shape up,” added Dunne. “I think the committee provides a really useful function in shining a spotlight on bad practice or injustice, and holding government to account for the things that it’s responsible for.

“The UK fashion industry is one of the world leaders in this sector both in terms of design and manufacture. Many of the leading brands make claims about the sustainability of their products but these claims are not always met in practice.” ■



“**Industry needs to step up and shape up**

*Philip Dunne MP,
chairman of the
Environmental
Audit Committee*

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Finding the right fit

Rental fashion's potential called into question by COVID-19.

By Chris Remington

The COVID-19 pandemic has raised questions not just about the resolve of businesses across the industry, but also about their versatility at a time of unpredictability. For brands and retailers, the terrain has been particularly tricky to navigate, with the ramifications of the virus spread felt immediately.

In March – the month that the UK went into its first lockdown – clothing sales tumbled by 34 per cent as consumers second guessed their need for new garments if they were to be resigned to the sofa.

More recently, figures from Primark laid bare the

drastic changes to our lifestyles with data showing that whilst its suit sales were “weak”, demand for pyjamas had comparatively sky-rocketed to exceed even pre-pandemic levels.

It's in such a sporadic climate that companies have either merely survived or thrived amidst the events of this year. For brands which offer a rental service, however, it's asked very different questions of their business acumen.

Far from the idea that clothing rental providers make all their money offering up outfits for special occasions, German retailer Tchibo started its Share service in 2018 by focusing on babies and children's wear “with the vision of building a new and more sustainable consumption model for the mainstream market”, the company's director of corporate communications, Arnd Liedtke, tells us.

Due to the fast-turnaround of kids clothing, it proved a winning formula in its first year amongst parents, prompting the retailer to further branch out into women's sportswear and outerwear.

It's here that the company came unstuck.

Despite early interest, Liedtke says this new offering failed to drive meaningful revenues.

“The discussion on how to continue with Tchibo Share started before COVID-19,” he insists. “Even though we'd received positive feedback, the market size stayed below our expectation and what was needed for a viable long-term business case.”

Alas, the virus' outbreak proved the final nail in the coffin for Tchibo, which discontinued its clothing rental service in October to “cut its losses”. What the firm found was that consumer appetite soon switched **1**

from clothing to items more fitting to life in lockdown, like coffee machines and sports equipment.

Moving with the times

A look through a wider lens at the industry's rental providers shows that, more than anything, it's the ability to adapt that's integral to a good service. After all, this is a new business model in the grand scheme of things... there's no right way to approach it.

This is perfectly summarised in the case of Rent the Runway (RTR), a pioneer in its own right and a firm that's grown organically since just 2009 to once hold a market value of around US\$1bn. A more recent assessment of the firm at the half-way stage of this year showed how the impacts of COVID-19 have dented its valuation, which now stands at closer to US\$750 million.

The company has since made considerable headway in transitioning its operational approach – something chief operating officer, Anushka Salinas, suggests it's been rushed into doing.

“Like every company during this time, we've encountered challenges. In the early days of the pandemic, we focused on repositioning the company financially and structurally to benefit in this new normal and coming out the other side of COVID. We've spent the last months expanding our unique business model to secure the future of Rent the Runway, by leveraging the vast groundwork we've laid



With nations locked down at the height of the pandemic, businesses reliant on brick-and-mortar stores were left exposed as their primary source of income was cut off, in some cases for months on end.

“There are major structural shifts that are happening in the retail industry right now

in the circular economy.

She continues: “We've accelerated long-term plans on our strategic roadmap to answer and adapt to customer behaviour in an uncertain climate. There are major structural shifts that are happening in the retail industry right now. COVID is accelerating the shift towards e-commerce and away from traditional brick and mortar and we recognised the shift early on.”

It's led to major surgery at the company, which in August made the decision to **close all of its stores** – bar its flagship site in New York which will serve as a drop-off point – in a move which epitomised the dominance of digital throughout lockdown.

“We are focused on investing in features – both in terms of product and physical location – that speed up turnaround time for customer orders and give customers more control over their RTR experiences,” Salinas tells *Ecotextile News*.

With this in mind, the company recently revised its subscription model – which had previously been rather rigid with the only option of paying US\$159 a month for up to 16 items.

Statistics have shown, however, that 70 per cent of its customers were renting fewer than eight items in this timeframe. As such, a trio of subscription offers has been introduced to better reflect the changing needs of shoppers.

They can now pay US\$89 for four items a month, US\$135 for eight or US\$199 for 16.

Harnessing the potential

The difficulties rental providers have encountered this year do not mean that the concept doesn't have legs. On the contrary, it merely highlights the model's infancy in an industry that's only now getting to grips with the potential of alternative business models, also including resale and take-back schemes.

Ultimately, such services are highly recognised because they offer different solutions to the same problem – waste in fashion.

Figures from WRAP highlight that the average UK household owns around £4,000 worth of clothes, and that 30 per cent of these items aren't worn even once in a year. That said, the figures indicate there's surplus apparel in the UK alone holding a value of upwards of £30 billion which, in the end, might be simply thrown in the bin when the realisation finally hits that the shopper won't wear it again.

What's integral to combatting this unhealthy cycle then is a service very much in the shape of rental, that supplements consumer desire whilst calling time on the system of churning out new items in a bid to meet ever-changing trends.

Speaking with *The Guardian*, Carolyn Mair, a behavioural psychologist and author of *The Psychology of Fashion*, said: “We get used to things that give us pleasure quickly but the strength of the initial pleasure depletes over time. Fashion thrives on our need

for novelty and so renting – and other options that allow us to have ‘new to us’ – satisfies so many of our current needs.”

With rental fashion therefore holding the potential to scratch the itch that for so long has only been reached by fast fashion brands offering rock-bottom prices, the question now turns to: how can brands harness its potential?

Amidst challenging times, the focus must be on adapting to the needs of customers. Australian firm Glam Corner has executed this in textbook fashion and the result has been an increase in subscriptions of 53 per cent since March – a period which many others will wish to forget.

Key to Glam Corner’s success has been recognising the swift shift in demand early on. The company makes no bones about how integral a pivot to marketing casual and maternity wear was. A look at its website still shows this to be the case with its ‘Edit’ category spotlighting such options.

URBN – which owns the likes of Urban Outfitters and

“Customers are getting used to this new normal and often find Nuuly to be a bright spot in their lives

▼ Glam Corner’s Edit focuses on maternity wear, casual styles and workwear, amongst other things.

Anthropologie – has also retained its custom using such tactics with its Nuuly rental platform.

A company spokesperson tells us: “We certainly saw an impact on our business as the pandemic hit and many states were locked down. Many Nuuly subscribers paused their accounts. However, over time, customers are getting used to this new normal and often find Nuuly to be a bright spot in their lives.

“While we have options for special events and work wear, the bulk of our assortment leans casual. We were always rooted in denim, and since the pandemic, the penetration of denim in our assortment has continued to grow. We love this foundation, as denim has a long life and can easily be dressed up or down. Other areas where we have seen opportunity while customers have been staying safe at home have been athleisure, graphic tees, jogger style bottoms and full, easy dresses,” the firm continues.

With the efforts of rental fashion providers being validated then, could now be

the perfect time for more brands and retailers to strike if they’re to get a foothold of the market?

The recent 2020 resale report of consignment store ThredUp certainly indicates that we can expect tectonic shifts in consumer shopping habits over the next decade, with second-hand fashion projected to hold a larger market value (at US\$44bn) than fast fashion (US\$43bn).

In-line with these estimates, ThredUp believes that second-hand fashion will account for the largest part of our wardrobes by this date, at 17 per cent, whilst fast fashion slowly slips to just nine per cent.

What goes hand-in-hand with this is the increasing consumer focus on sustainability. WRAP’s most recent survey (November 2020) suggests that 63 per cent of Brits now deem the environmental impact of their clothes as ‘severe’, which is at direct odds with any suggestion that fast fashion firms can continue their ascent of the market.

Surely then, if people are in the market for cheaper garments to meet swiftly changing trends – whilst also having one eye on their own responsibility to protect the environment – you cannot look past rental fashion.

Certainly, after the financial car crash of this year, cheaper rental offerings will prick the ears of those looking to diversify their wardrobes on a budget. Wouldn’t it be fitting then that the situation which has ultimately called time on some rental offerings should be the catalyst for future intrigue. ■

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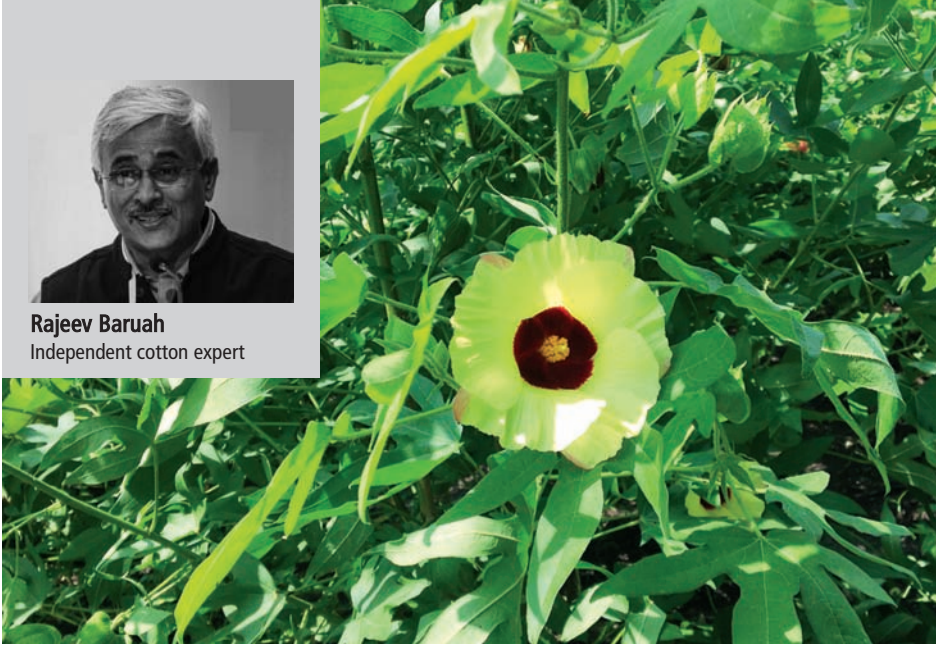
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AVITERA® SE



Rajeev Baruah
Independent cotton expert



Indigenous cotton could boost sustainability

The revival of indigenous *Desi* cotton production in India could be a game changer for farmers and for the prospects of a more sustainable cotton industry, argues Rajeev Baruah, an expert on cotton based in Uttar Pradesh who's previously advised the BCI, Solidaridad and bioRe.

India has the largest cotton acreage in the world today (11 to 12 million hectares), but cotton yields still remain low and have been stagnant for the past 15 years at approximately 511kg/ha.

So why is this? India's cotton farming sector has essentially become saturated by the double gene Bt-cotton and hybrid technology, which are expensive to cultivate, since they are highly input dependent and often run the risk of collapse under biotic and abiotic stress.

Bt/hybrids demand high amounts of water and fertiliser and because rain-fed agriculture accounts for 55 per cent of the net sown area of India, the impacts of climate change will have a greater impact on rain-fed regions. *Desi* cotton with its deep rooting system needs fewer inputs.

Let's not forget, close to 70 per cent of India's cotton is grown under rain-fed conditions.

Desi cotton species survived in the natural habitats of India for millions of years where the cotton plants adapted the necessary resilience and robustness needed for long term sustainability to give high yields at low production costs.

This makes *Desi* an ideal candidate for both organic and 'sustainable' cotton production systems that can help to combat climate change.

Some of its inherent strengths are the fact it is a deep rooted plant which exhibits 'okra' type leaves to allow for more effective light penetration leading to more efficient photosynthesis.

It's also highly suitable for rain-fed conditions, and for both light marginal and saline soils.

The *Desi* species is also endowed with high resistance levels to drought and salinity, it requires less fertiliser and chemical interventions due to its high nutrient use efficiency and is totally suited for organic and low input agricultural systems.

Importantly, *Desi* cotton (*Gossypium Arboreum*) has a high lint recovery rate at 38 – 40 per cent gin out-turn, compared to 32 – 34 per cent in hybrid *Gossypium hirsutum* cotton.

However, there are some good reasons why *Desi* cotton was replaced initially, although according to Baruah, most of the previous 'weakness' of *G. arboretum* has now been overcome.

These included small boll size, a propensity to shed seed cotton from open bolls necessitating more frequent picking, tall and lanky plants cause lodging if boll load is high and perhaps most importantly, poor fibre length.

Lodging is when a cotton plant grows with a thin stem making it sway and fall during heavy rain or strong winds and spoiling the fibre.

Seeing its potential, a handful of public sector breeders continued to work on these problems by adopting non-conventional

breeding approaches such as **introgression**," he noted.

One such example involved cotton breeders at the state agricultural university Vasantha Naik Marathwada Krishi Vidyapeeth (VNMKV) based east of Mumbai in the city of Parbhani, Maharashtra.

They achieved great success in improving the staple length of *Desi* cotton, as a result of which, the fibre is now suited for the current needs of the textile industry, according to recent tests at Welspun, India (see graph).

This analysis was also backed up by a paper published in the *Journal of Cotton Research and Development* (July 2016), by authors Chandra, Srinivasan and Akade who showed that "the improved *G. arboreum* cotton can be processed successfully on high speed modern textile processing machines. The qualitative analysis of the yarn, fabric and other relevant characters revealed that the improved arboreum cotton is a potent and viable alternative to the medium long *G. hirsutum* cotton."

If these results can be replicated elsewhere, then the proven improvements in quality and the desire of Indian cotton farmers to improve yields and reduce cultivation costs, *desi* cotton could be the answer for India's rain-fed cotton farmers.

As for organic cotton farmers it also offers the possibility of zero GMO contamination.

Desi cottons could provide a sturdy road map to sustainability and offer immense potential to

A breeding procedure in which genes not available from within the species are transferred into it from another species. It's a long and time-consuming process.

Desi cotton

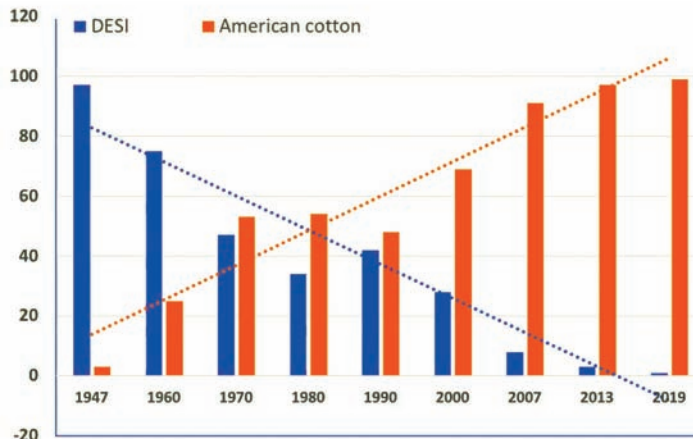
Gossypium arboreum and *Gossypium herbaceum* originated in India millions of years ago, and are commonly referred to as desi cotton species.

Gossypium arboreum is under commercial cultivation mainly in India and Pakistan.

Back in 1790, the British introduced *Gossypium hirsutum* (American cotton) from Malta and Mauritius to feed the textile mills in Lancashire and Manchester, and for nearly 150 years tried to replace desi cotton but with little success.

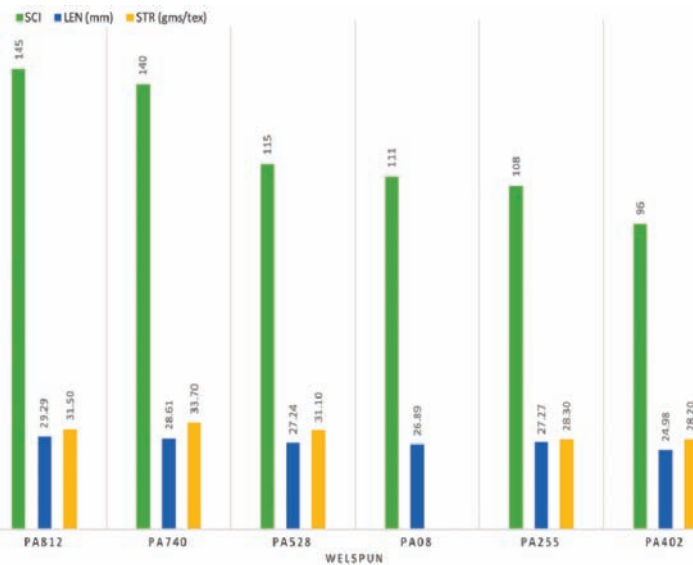
After Indian independence in 1947 the area under *Desi* cotton was close to 97 per cent with Calico and Dhaka Muslin fabrics all woven from the coarse fibre of *G. arboreum*. Soon afterwards, Indian cotton scientists declared desi cotton fibre as 'coarse', focusing instead on American cotton.

DESI COTTON IN INDIA DECLINED FROM 97% TO 1% OF PRODUCTION



Source: Rajeev Baruah

G. ARBOREUM COTTON QUALITY DATA



SCI: Spinning Consistency Index; LEN: Length; STR: Strength. Cotton tested at Welspun India (2020)

develop a new 'brand' of Indian grown cotton.

The authors of the above paper also concluded: "The fabric produced from improved *G. arboreum* cotton shows comparatively higher toughness and appears to possess optimum rigidity with markedly higher values for dye uptake and air permeability as compared to *G. hirsutum* cotton fabric.

These fabrics are suitable for the designated end-use, i.e., men's winter wear with THV (fabric handle rating) of around '3'.

The improved *G. arboreum* can be a viable and suitable alternative to the medium long staple *G. hirsutum* cotton." ■

Rajeev Baruah is a freelance cotton consultant based in Uttar Pradesh.

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Back to the future

Eddie Ingle, the new CEO of Unifi, talks to John Mowbray about his plans for the recycled polyester supplier, which he recently re-joined.

Being appointed as the CEO of a large recycled polyester yarn producer in the middle of a global pandemic is not really ideal timing – especially when apparel retailers are being laid low by COVID-19.

But Eddie Ingle's decision to leave Indorama as the CEO of its Recycling Group to lead Unifi – a company he first joined more than 30 years ago – was a no-brainer for him. "We do have an amazing bunch of people that are very purposeful, very dedicated, very focused on all things sustainable," he tells us. "But my first priority when I came back was to stabilise the business," he said. "And building a sustainable business first begins with building a business that can sustain itself." Subsequently, at the end of its last quarter, Unifi had its lowest net debt in over 20 years. Despite this position, the virus outbreak's impacts on

customer brands have certainly had knock-on effects for suppliers such as Unifi, and when COVID-19 drove the price of oil into negative territory, products made from virgin petroleum – including synthetic polymers – became a lot cheaper than recycled.

Traditionally, admits Ingle, Unifi has been very focused on oil prices but says nowadays it's not so critical because 35 per cent of its sales come from its 'Repreve' branded recycled yarns.

"Recycled products don't move quite symmetrically with oil prices like virgin content," he told us. "Because recycled requires labour and more capital it's less prone to the vagaries of a commodity like crude oil. Obviously, it trends with it slightly. But when people commit to recycled, they don't switch in and out because of oil prices anyway."

Consumer demand

He says these commitments are increasingly driven by Generation Z and millennial consumers. "We don't see consumption being down, but we do see conscious consumption being up," he says, adding that, "more customers and brands are coming to us and saying I have this need to become more sustainable, how can you help?"

Without doubt, polyester remains a growth fibre and Ingle says this means Unifi is itself a **growth business**.

"Polyester continues to grow at GDP rates and interest in recycled polyester is growing at an even faster rate than virgin polyester," he said.

He also expects online

retail platforms to spearhead the move towards more sustainable purchasing behaviour, which is something Unifi can easily tap into. He noted how the recent 'climate friendly pledge' from Amazon is a case in point: "We're connecting our certified recycled products to amazon.com and other online retailers – we will be there, Repreve is visible to consumers."

But does Unifi still have access to the raw material supply chains to service this targeted growth? After all, recycling rates are sometimes low, and most recycled polyester fibre is still made from used drinks bottles, whose makers will expect it back.

"It's well known that the 28 per cent recycling rate in the US is problematic," acknowledged Ingle. "But Coke, Danone, Pepsi, they're trying to increase the amount of collection that takes place in the US."

But he doesn't see that problem elsewhere and expects the single use plastic directive in Europe to put 'hundreds of thousands of tonnes' of recycled plastic on the market in the next few years. "Textile take-back is also going to be important," he noted.

"Already Europe has been talking about end-of-life for the garment ... and will allow us to offset some of the demand. We'll be investing further in this and have been doing textile take-back for over 10 years. The industry will wake up 20 years from now and go yeah, that works, why didn't we do that sooner?" ■



Ingle says Brazil, Asia, the US and central America are key markets.



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Beaten black and blue

The Transformers Foundation, which was spun out of the Kingpins trade shows earlier this year, outlines how denim suppliers have been let down by some brands.

Simon Glover reports.

Billed as the first time that the denim supply chain has spoken out with one voice on the coronavirus crisis, the Transformers Foundation set itself a pretty ambitious task in its first white paper.

Articulating how brands, retailers, and importers “walked away from their commitments” to their suppliers at the onset of the pandemic, it outlines how these broken relationships might be made good again.

Entitled *Ending Unethical Brand and Retailer Behaviour: The Denim Supply Chain Speaks Up*, the white paper argues that the pandemic has exposed the inequity of power between brands and the supply chain.

This is illustrated by the fact that 79 leading denim

suppliers and jeans factories were approached to take part in a survey for the report but most declined to respond “out of fear that their participation, even anonymously, would lead to retaliation from buyers.”

Of the 25 that did respond, most said they had experienced unilateral decisions from buyers to cancel and delay orders, delay payments and extend payment terms, with no possibility for negotiation or discussion.

Several reported that brands, retailers and importers had refused to pay for goods even after they had been delivered, and a number reported that retroactive “discounts” had been imposed on products already made or shipped.

Andrew Olah, the founder of the Transformers Foundation, said: “A lot of this behaviour has been going on for decades.

“The buyers believe that’s part of their toolkit, it’s not just in reaction to COVID. That’s why I think what we’re doing is important.

“People can ask in a pandemic, or any other emergency situation, for help but unilateral (price) reductions are not part of a mechanism that can make our industry last.”

The white paper makes a series of calls to action, including the proposed creation of a new independent multi-stakeholder group, the Ethical Denim Council (EDC), to provide support and arbitration to suppliers struggling with unethical buying practises.

The white paper also calls for the establishment of a



“**A lot of this behaviour has been going on for decades**”

*Andrew Olah,
Transformers
Foundation*

new brand, retailer, and importer (BRI) ethical code of conduct and for the formation of a short-term supplier working group.

Highlighting best-in-class business practices in a bid to inspire the entire denim industry to collaborate on correcting the power imbalance, it aims to help build a more equitable and ethical denim and jeans industry for the future.

The white paper draws on in-depth interviews with executives representing a diverse cross-section of the denim supply chain, including laundries, mills, and cut-and-sew factories in 14 countries.

It also features contributions from leading stakeholders including Ayesha Barenblat, founder and CEO at Remake; Jenny Holdcroft, assistant general secretary at IndustriALL Global Union; and Marsha Dickson, president and co-founder of Better Buying.

“The supply chain now has the opportunity to work together to make changes they could never make alone,” added Olah, who established the Transformers Foundation to provide denim suppliers with a voice in the industry.

“This report identifies and illuminates the many problems that are fixable with collaboration and shared intentions not only from factories and mills, but from NGOs, governments, brands, retailers, importers, and the people who love to wear denim.

“This report is just a first step, you’ll be seeing more from us in the months ahead.” ■

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Mick Siddons
Veteran textile engineer

Spinning full circle

Forget the one-dimensional debate on the replacement of synthetic fibres. It simply won't happen, says veteran textile expert Mick Siddons.

With just a cursory glance at production figures of 56.8 million tonnes per year, it's easy to see why a major shift in recycling polyester would significantly move the environmental needle when only a one per cent of clothing is recycled globally, according to Recycled Resources Systems in the USA – which also estimates less than 20 per cent of textile products given to charity are resold.

And as the emerging nations continue to create tariff barriers on used textiles, it's increasingly important that western consumer countries find solutions to achieve increased circularity in textiles and clothing.

Added to which, the current 55 million tonnes per year mill demand for polyester will continue to grow year-on-year; while

cotton capacity will likely remain at around 26 million tonnes per year for the foreseeable future.

Despite naïve calls from some in the industry to replace polyester and other synthetics with natural or novel fibres, the reality is this will not happen at scale.

"Polyester is already 55 per cent of global fibres consumption and, even with renewed growth in total fibre consumption, its share will rise to 58 per cent by 2025," forecasts Alexei Sinitsa an analyst at the Wood Mackenzie consultancy.

"This is driven by a powerful combination of an ultra-competitive cost plus a formidable portfolio of staple and filament products. Polyester addresses virtually all end-use sectors and all fabrication routes with an unrivalled range of aesthetics and performance. Fortunately, the durability of polyester polymer makes it eminently suitable for recycling efforts. Any serious global sustainability initiative must necessarily encompass polyester fibre activity to have a meaningful impact on the environmental challenges facing the global textile chain."

The past 80 years has seen massive global investment in polyester production capacity and any attempt at ecological improvements must accept that no major shift from current manufacturing pipelines will happen soon. Polyester has risen to these levels solely because the market has chosen it. There is no possibility that any other fibre will replace it, for financial, capacity and performance reasons.

Cotton, the biggest competitor for polyester, is natural and recyclable but has its own issues with sustainability around water, insecticide and herbicide use and acreage is very unlikely to expand rapidly in years to come. It's a great fibre and has its established place in the market, but we must find another solution to the circularity conundrum other than fibre replacement – one that fits in with current manufacturing capacity, fibres and technologies.

Synthetics are not automatically bad. It's the way we use them that can be. Contrary to current thinking, continuous filament synthetic yarns cannot shed fibres. So why do we chop them into short pieces for spinning? Why do we crop and brush and abrade them for fleece and velour, when this makes them prone to pilling and fibre shedding?

Most of the current work on waterborne microfibres takes little notice of the manufacturing route or the processing conditions of the substrates tested, although this is the most important consideration when evaluating the data. **1**

Sources of microfibre

A major current and historic problem lies in the waste from these cropping, brushing and sueding processes (typically 20 per cent fibre loss), which historically have had no alternative use and have been sent to landfill where it can leach into water courses.

Synthetic fibres that are to be cut for (staple) spinning are also extruded with intentionally low strength or with soluble particles in the fibre. This makes the fibre weak after washing, so that 'pills' (bobbles) fall off to give a clean fabric surface. In other words, it's predisposed to shed fibre by design. This fibre also has an extremely low coefficient of friction so it readily sheds in wear. In landfill, the organic

elements of natural and synthetic fibre blends decompose, and the weakened synthetic fibre breaks up and washes out.

Another problem is the area of fake fur/shearling (polyester/modacrylic), which is generally non-recyclable. Then there are chenille or other flock and fibre tow applications. Flock is fibre cut into very short lengths (down to ½ mm) and glued or twisted into yarns or glued onto products. There's growing use of flock in yarns for car seats and door panels, in home textiles and packaging/toys as well as apparel. These yarns are made from a single core yarn and the flock is glued onto this mostly with biodegradable PVA glue, flock is also spray/glue

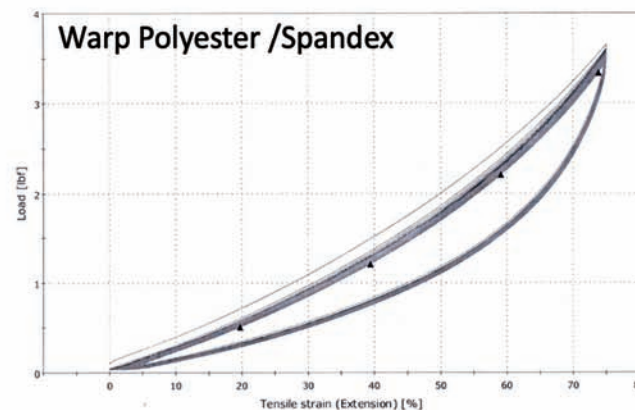
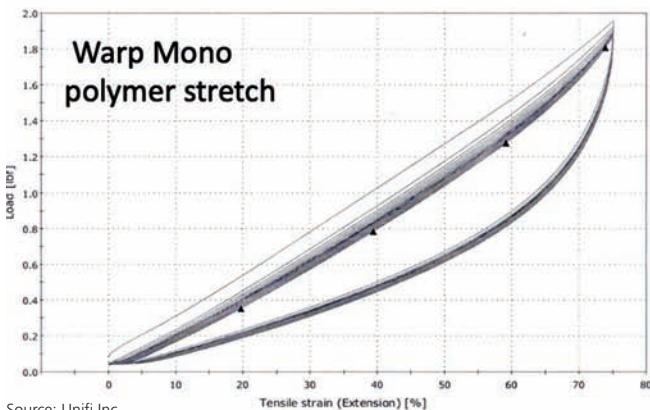
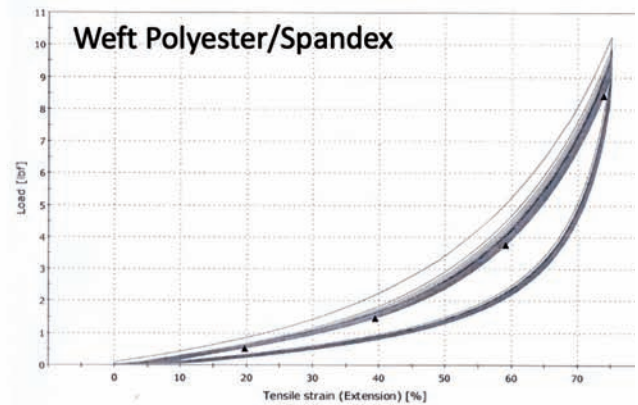
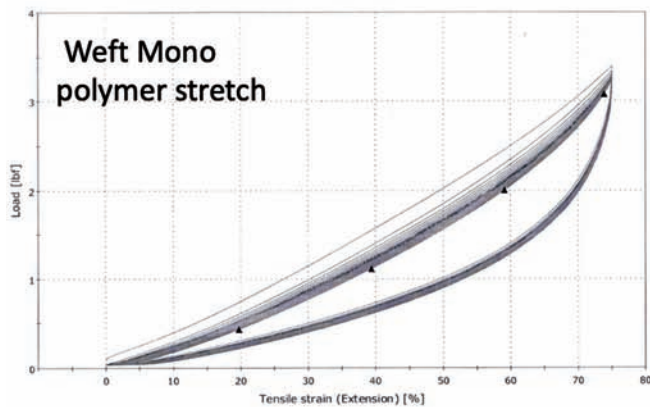
coated onto panels and parts for appearance/sound deadening purposes.

All automotive textiles and trims go to landfill or are burned off to recover metal. Any fabric/window trims, packaging/toys or home textiles containing flock and sent to landfill will eventually shed the flock itself as the biodegradable PVA glue breaks down.

Stretch and recovery

So, the question is, why do we continuously blend fibres when it renders the resultant material almost impossible to recycle? Most difficult to recycle stretch inducing components in yarns are much too powerful for general fit applications and the fabrics have to be stretched and heat set at

RECOVERY FROM ELONGATION OF 75% 50 CYCLE TEST



Source: Unifi Inc.

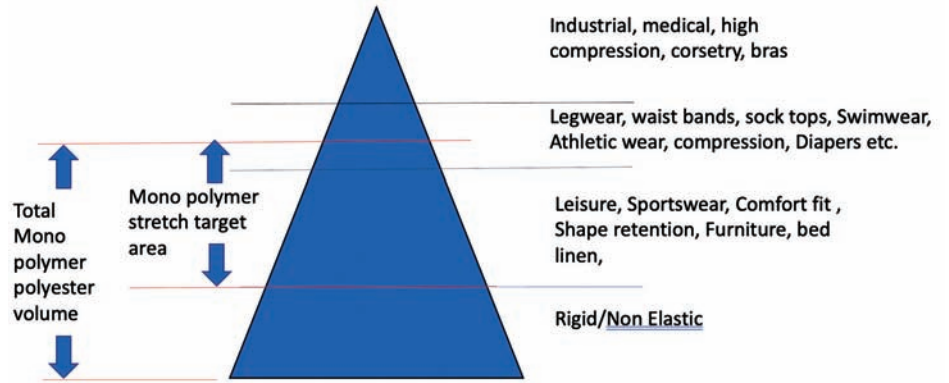
high temperatures to remove most of the power so the weight and elongation can be lowered to a viable level (Spandex, PBT, PTT, conjugates etc).

Textile manufacturers use huge amounts of energy and water to process the excess contraction out of these fabrics and to restore fastness, only for brands to complain the results are sparkly, shiny and opaque.

There are many proposed recycling processes for synthetics, but the current market choice is to simply melt back the fibre to the polymer level. It's currently the only realistic scalable solution to give large-scale environmental benefits.

There are other alternatives involving chemical recycling, but

ELASTOMERIC APPLICATION



these are higher cost, use excess energy, or produce unwanted by-products and the associated effluent. Eventually, cost and market dynamics will decide the future of recycling processes beyond this and will also eventually address the current limitations around diversity of colour. But for now, to meet impending and

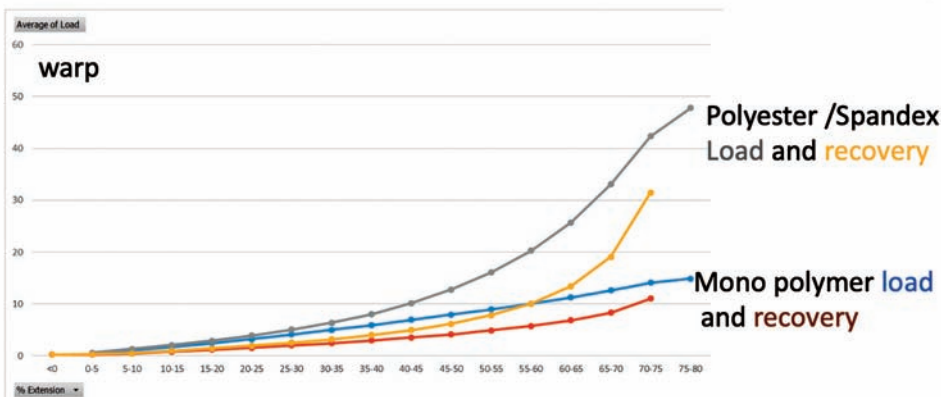
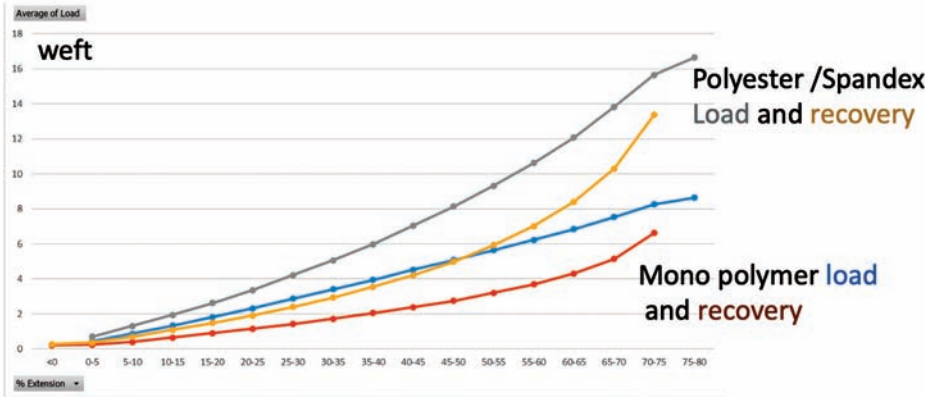
publicly stated environmental targets, a focus on the use and recycling of mono-polymers seems to be the most logical way to reach these desired environmental gains.

In my view, the 'sustainable' use of non-petrochemical input to produce raw materials for polymer production should be considered greenwashing, the resulting product is generally more expensive – financially and ecologically – and inevitably becomes another part of the polymer circularity problem.

The plastic bottle market is now quickly moving to establish its own recycling capacity and to consume (for technical reasons) only its own output. So the onus is now on textiles to deal with its own product with all the problems of diversity that go with it (a bottle is a bottle, but a garment is potentially a million things). There is also a question of extended manufacturer responsibility.

There are still some major barriers to overcome to successfully recycle synthetic fabrics though, the biggest being the continued proliferation of multi-polymer/fibre textiles as upstream yarn and fabric

MONO POLYMER POLYESTER STRETCH V PLATED SPANDEX, STRETCH AND RECOVERY



Source: Unifi Inc.

manufacturers try to differentiate their product. In truth, few alternative polymers beside polyethylene (spandex) will ever gain significant market traction in clothing (PBT, PTT, polymer combinations and others have tried for 50 years). Even polyamide is consistently losing ground.

Mono-polymers

Bearing this in mind, using more mono-polymer fabrics that can be simply sorted, remelted and then recycled is a viable option to improve industry circularity. But this raises several questions, the spandex segment, with an annual production capacity at 0.9 million tonnes per year is the most significant stretch component in any fabric. Used at an average of five per cent in polyester-based multi-polymer fabrics this likely equates to around 17 million tonnes of fabric per year that cannot be readily recycled.

There are two alternatives, one is to find a way to separate spandex from other fibres – something that is not feasible in significant volumes with current technology. The alternative is to use existing technologies to potentially fill this demand for elasticity. Yarns are commercially available to make mono-polymer polyester or polyamide fabrics with adequate hand/appearance and equal stretch properties to spandex fabrics for most end uses – except industrial, medical and genuine compression products (see pyramid chart).

For most shape retention and comfort stretch

requirements, polyester/polyamide mono polymer stretch fabrics in all fabric forming technologies can be made within current existing capacity.

There **are ecological gains** to be made in mono-polymer fabric production compared with spandex/polyester blends.

Mono-polymer polyester stretch fabrics, for example, can supply adequate recovery and shape retention in wear compared with spandex fabrics, they do not load as dramatically as spandex fabrics on extension, but do have equivalent extension stability in wear (see charts).

There will be resistance to this approach within the textile manufacturing sector, as it will need to rethink the norm and accept new ways to achieve stretch (yarn sourcing, material manufacture and finishing). Nevertheless, heathers and the great diversity of textural effects needed by knitters and weavers can all be developed with the use of filament cross section, spun dyed and speciality texturing techniques to develop components in textured mono-polymer bi-component yarns.

Designers would have to work with these new alternatives, but with the incentive that fast fashion and sportswear could be a perfect vehicle for mono-polymer circularity, given strong retailer garment collection participation.

Most woven stretch qualities can be made without air covered and core spun components if a little flexibility is shown (only 15

per cent elasticity is generally required). This equally applies to non-compression medical and hospitality fabrics where a stream of near mono-polymer product exists seemingly unexploited. Fibrefill product and water-resistant membranes seem to have already prepared themselves for this scenario.

Significant improvements in production efficiency coupled with major water, energy and effluent savings are there for the taking.

It is also true that clean mono-polymer waste would have a value which would probably cover its overall collection costs.

There seems little that cannot be done to replace existing product in a closed circular manufacturing /recycling system and much that can be done that we have not thought of yet. Redirecting investment – rather than constantly talking about fibre replacement with new, unrealistic alternatives – may just get us there.

What's for sure is that we need to urgently move past the current lip service to meet the new demands of a circular way of working that will ultimately be driven by both clear commercial and technical benefits.

It's now time to move on from the one-dimensional natural vs synthetic fibre debate on sustainability. ■

According to Simon Chippendale at Cloverbrook Textiles Egypt, in November 2020, dyeing mono-polymer polyester fabrics gave energy and water savings of around 50%, knitting machine production increased by 50% and energy for heatsetting fabric can also be halved.

“**Mono-polymer waste would also have a value that would cover its collection costs**”

Mick Siddons is a veteran textile engineer having worked for 58 years in textile machine building, commercial sales and new fabric development for some of the world's biggest yarn suppliers and sportswear brands.

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- ✓ superior quality of the wool and wool preparation standards, unlike other schemes.

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Australia's mulesing controversy continues



Proposals to ban the breech modification technique rejected in New South Wales.

By Chris Remington

It's 2020, and whilst progress reports for large parts of the industry will have unsurprisingly taken a nosedive, for animal welfare campaigners it's been a year of marked progress.

An increasing number of fashion firms have aligned in their efforts to eradicate animal-based products from their apparel collections – including alpaca fibre and the exotic skins of alligators and snakes – whilst the governments of both France and the Netherlands have set a new precedent with time-bound commitments to eradicate fur farms.

And yet, amidst this flurry of activity, divisive talks surrounding the controversial practice of mulesing in Australia continue to go around in circles.

That's because recently, proposed changes to New South Wales' Prevention of Cruelty to Animals Act put forward by Mark Pearson, a

member of the NSW Legislative Council representing the Animal Justice Party, were rejected.

Pearson's proposition centred on mandating pain relief for sheep prior to mulesing – something that's already been achieved in the neighbouring State of Victoria – with the view to banning mulesing outright by the start of 2022.

This, the inquiry heard, was "not the right way forward", much to the dismay of activists who've relentlessly pursued a ban. There had been promises in the mid 2000s that mulesing would be made illegal by 2010... where has the time gone?

Tough crowd

Pearson has spearheaded efforts to outlaw mulesing for some time now. In 2016, he met with NSW Police to determine if farmers could be prosecuted for animal cruelty if they failed to administer pain relief. Authorities advised however that under current legislation, prosecution would most likely be unsuccessful.

Four years on, having taken all the necessary steps to bring his argument to the table, whilst garnering industry-wide support along

the way, his chance to drive industry-defining change failed to reach the finish line.

"It is disappointing that all of my fellow committee members missed the opportunity to bring New South Wales' animal agricultural practices into the 21st century, but I'd like to stress that the committee's findings don't even represent the entire woolgrowing industry, let alone the general public's perception of mulesing and other invasive procedures," he told *Ecotextile News*, reflecting on the parliament's decision.

"Many woolgrowers have long moved on from mulesing, but as a whole the industry remains completely disconnected from reality by clinging to the idea that mulesing is necessary. The industry is out of touch, and this is a theme we saw again and again throughout the inquiry.

He added: "I am heartened we had such a huge number of people and organisations advocating for the sheep and for the propositions of my bill. For whatever reason this bill, and therefore the inquiry, seemed to live and die by one sticking point the committee could not let go of - the time frame to ban mulesing by 2022.

"They clung to the idea of this time frame being 'too short'. Therefore, the outcome of the inquiry is a representation of mulesing stalwarts only – those farmers who seemingly won't move on from mulesing in 100 years let alone two. This gives me hope that the fashion industry will leave them and the practice behind whether they like it or not," he noted.

This year alone, companies including Ted Baker, Next, New Look, Matalan, Columbia Sportswear, Valentino, Uniqlo and Marks & Spencer have banned alpaca wool from their supply chains.

Growing support

There's mounting evidence to suggest those that opting to cease mulesing from their operations will ultimately reap the biggest rewards, particularly in the long run.

Counter to the narrative that a move away from this practice would require a lengthy period to transition, research from socio-economic consulting firm BG Economics, with support from Humane Society International (HSI) and Four Paws, highlights that not only could such changes be made quickly, they could prove profitable.

Having spoken with 97 native wool producers across the country that've made the move, 83.5 per cent reported that the process of ceasing mulesing was not costly, whilst 77.5 per cent say it's feasible in under five years. And 42 per cent of respondents actually vouched for it being an attainable goal within 24 months.

What might also prick up the ears of woolgrowers on the fence is that 87.6 per cent of those in the sample say they now receive premium prices for their mulesing-free wool.

The customer support is becoming overwhelmingly in favour of a move from mulesed wool too. Four Paws recently gained the backing of 185 international brands and retailers, including H&M and Patagonia, as it sent out a powerful statement that the industry wants rid of the divisive practice.

An H&M spokesperson told *Ecotextile News*: "Animal welfare is important to us.

“**The outcome of the inquiry is a representation of mulesing stalwarts only – those farmers who seemingly won't move on from mulesing in 100 years let alone two**

*Mark Pearson,
New South Wales
Legislative Council*

Tri-Solfen is a pain relief medication used prior to mulesing and is currently being tested in animal welfare trials at the University of Melbourne. The team there are assessing mulesing, both with and without anaesthetic, alongside methods such as freeze branding to gauge the pain implications on these animals.

We have a long-standing commitment to improving animal welfare across our global supply chains and we are working to source all animal-derived materials from farms with good animal husbandry.

"H&M Group does not accept mulesing and we have had a ban on mulesing since 2008. For wool originated from Australia, H&M Group requires that it's declared according to National Wool Declaration and that it's non-mulesed or ceased mulesed wool."

The majority of the brand's wool now comes from South Africa, Uruguay and New Zealand; this, despite Australia providing upwards of 90 per cent of the global industry's wool.

A stubborn opposition

All of this isn't to say that the argument is one-sided. On the contrary, wool growing bodies are as passionate advocates of the practice as the opposition are campaigners against it.

NSW Farmers' president James Jackson maintains: "Mulesing is an effective fly-strike mitigation tool, so it needs to be upheld for the sake of animal welfare."

Meanwhile, Callawadda-based sheep crutcher Michael Dignan told local Australian news outlets – in the run up to the inquiry – that "there is a balance".

"I think if the scales are tipped too quickly in one direction before the other can be boosted up, the results can be disastrous," he said.

Wool grower and the developer of pain relief medication **Tri-Solfen**, Chick Olsson insists that

animal welfare organisations like PETA have had "10 free years bashing... with no defence", suggesting that bad press has impacted those which still choose to mules, without the right to a rebuttal. He alludes to cases in which brands like Gap and Lululemon have visited farms that practice mulesing, and found their experiences to be "very eye opening".

For now then, the controversial topic will rumble on with both sides sticking to their guns. Pearson insists: "I won't give up on the millions of sheep who suffer immensely because of these archaic industry practices and the laws that allow it to continue."

In the distant future, however, he sees no real winner to this argument. "It seems counter-intuitive to spend time and resources looking at different ways to harm an animal, when progressive businesses and customers are already looking at other options," he says.

Ultimately, he sees the industry switching to plant-based textiles – in a shake-up similar to how veganism is becoming increasingly popular in the food industry.

"I'll place my bets now: plant-textiles are the future, and if I were a farmer I'd be switching from sheep to plants now – not only to save sheep suffering, but to save water and land. We've seen how plant-based products have thrived in the food industry, and I'm sure the textiles industry will be the next scene of a plant-based revolution," Pearson concludes. ■



Leaders of the pact

The Fashion Pact sustainability initiative, launched at last year's G7 Summit in Biarritz, recently published its first annual report. Simon Glover reviews progress so far.

Claiming to represent a third of the global industry by value, the Fashion Pact has come a long way since French President Emmanuel Macron tasked Kering's François-Henri Pinault with bringing together leading players to reduce fashion's environmental impact.

One year on, Fashion Pact executive director and secretary general Eva von Alvensleben underestimates neither the size nor the urgency of the challenge of achieving progress in its three priority areas of climate, biodiversity and oceans.

"The fashion industry needs to act because the system is flawed, we know that. And with the knowledge that we have today, we have an opportunity to shift to a system that works with nature and empowers

people at the same time," she tells *Ecotextile News*.

The Fashion Pact's membership is a who's who of the fashion industry's biggest names including Adidas, Bestseller, Burberry, Chanel, Diesel, Gap Inc, Armani, H&M, Inditex, Karl Lagerfeld, Kering, Nike, Prada, Puma, PVH Corp, Ralph Lauren, Selfridges and Stella McCartney.

"We really believe in this idea of collaboration, bringing the best experts around the table, having one third of the global industry talking to each other to tackle issues that individual companies couldn't tackle alone, to accelerate our journey," she adds.

Signatories pay a membership fee which funds the initiative's running costs – however, von Alvensleben insists this buys no special privileges and that any company failing to meet its

“**The fashion industry needs to act because the system is flawed, we know that**

Lower impact materials include BCI, Fair Trade, organic and recycled cotton; biobased and recycled polyester; ZQ-certified, recycled and regenerative wool; FSC/PEFC certified, closed-loop and recycled man made cellulose (MMC), and other natural fibres.

▼ Eva von Alvensleben.



targets and principles would be shown the door.

"On the other hand, the Fashion Pact is a CEO-led coalition and this leadership sets our expectations and actions, they have put their names to this. We've had so much commitment that, so far, we're going further every day," she said.

The initiative's first annual report identifies seven strategic targets – across its three key themes – which have been set by members with the support of leading experts across research, science, and conservation.

On climate, three targets have been set: implementing the UN Fashion Charter, transitioning at least 25 per cent of key materials to **lower impact versions** by 2025, and achieving 50 per cent renewable energy in members' own operations by 2025 and 100 per cent by 2030.

"Availability and adoption of lower impact alternatives range widely across materials – but by aggregating our demand, we have the opportunity to tremendously influence global supply," says the report.

Von Alvensleben stresses that the modest 25 per cent target for 'lower impact materials' is seen as only a

first step, adding: “If you bring a third of an industry into a room, it’s about tipping points. It’s about changing ideas, and again the ambition is very high and will always stay high.”

To deliver on its climate targets, the Fashion Pact is engaging with third party experts 2050 and SYSTEMIQ who have mapped out strategic areas for collective focus, as well as advising on accurate reporting and target-setting.

Biodiversity has become an increasing concern over the last 12 months, especially since the onset of the coronavirus pandemic, and the Fashion Pact claims to have made the first comprehensive industry commitment to setting Science-Based Targets (SBTs) for nature.

Two specific targets have been set – for members to each develop individual biodiversity blueprints by the end of this year, and to support zero deforestation and sustainable forest management by 2025.

The report reveals that 80 per cent of Fashion Pact members did not even have a public biodiversity commitment a year ago. Half of them said joining up had inspired interest in preventing deforestation.

“The fashion industry has a significant impact on biodiversity. We depend on biodiversity and we also impact biodiversity. So it’s the first time an entire industry has recognised biodiversity as a priority,” explains Von Alvensleben.

“Yes we do start at the beginning. But that’s what makes me super-excited

“If you bring a third of an industry into a room, it’s about tipping points

▼ The initiative's first annual report identifies seven strategic targets.

about this. It’s recognised as a priority in the Fashion Pact, and there’s a clear commitment to come up this year – 2020 – with a blueprint to see how we can tackle biodiversity as an industry together.”

On the third pillar, oceans, signatories have committed to two targets - eliminating problematic or unnecessary plastics in B2C packaging by 2025 and B2B by 2030, and ensuring at least half of all plastic packaging is 100 per cent recycled by 2025 for B2C and by 2030 for B2B.

However, the Fashion Pact report makes hardly any mention of microfibres despite the fact that these tiny particles – shed during the washing of polyester clothing – make up more than a third of ocean microplastic pollution.

Von Alvensleben insists this issue has not been overlooked but that it was felt that the signatories could make a bigger impact, initially, by focusing on single use plastic packaging.

“It’s not the whole story but there were discussions about where the signatories can take a first step, where they can collaborate. It’s about being able to scale smaller innovations that are beyond one company individually,” she said.

“It’s just one step,

microfibres are absolutely part of it, as are many more topics that we want to tackle on oceans. It’s a huge one and it’s at the core of what we want to do.”

Looking back on the initiative’s first year, which coincided with a global pandemic, and looking to the huge challenges ahead, Von Alvensleben says she feels a little more confident that fashion can contribute to the solution rather than being a big part of the problem.

“The unprecedented circumstances of COVID, something nobody expected, made it a very tough year, especially for fashion. Luckily for the Fashion Pact, it was also an unprecedented year because we saw an extreme amount of commitment and overwhelming impact of engagement,” she says.

“So, for us, it was kind of an accelerator in that sense. We managed to double our membership, we have broken down our global commitments to concrete first actions across our three pillars of biodiversity, oceans and climate.

“We have started our dashboard to hold ourselves accountable, and we have a measurable set of KPIs across all of our three pillars in place. So, it has been exciting but we’re just at the beginning, I would say.

“We are on a timeline here, right, we need to act now. That’s really what we feel we were set up to do. For the first time, 60-plus CEOs in the fashion industry have come together to team up for sustainability on these three pillars. So our focus for the next year will be on action.” ■



The appliance of science

Growing calls are being made for science-based targets to be widened to include companies' impact on water, land, biodiversity and oceans – as well as climate change.

Simon Glover reports.

Environmentalists have been inspired by the success of the Science-Based Targets initiative (SBTi) in working with companies to help them play their part in meeting the climate change targets of the Paris Agreement.

Initial guidance to industry on plans to introduce similar targets on minimising impacts in a host of other areas, including freshwater, land, biodiversity and oceans, was recently issued by the Science Based Targets Network (SBTN).

This has been coming for some time. The World Wide Fund for Nature (WWF) has been talking about science-based targets for water since 2016 when it co-published a paper entitled *Exploring the Case for Corporate Context-Based Water Targets*.

The following year saw the establishment of the Earth Targets Platform, part of the Global Commons Alliance, which led to the setting up of the SBTN to develop science-based targets for companies across nature.

The change of terminology was significant. 'Context-based water targets' reflected the geographical differences in water issues – the fact that some parts of the world face droughts while others are flooded.

But a science-based target offers the enticing prospect of a global solution that can readily be understood in the way that companies working towards **SBTs on carbon emissions** know they are working toward a target of limiting climate change to 1.5 or 2°C degrees.

But is this viable? Kevin Moss, global director of the WRI's Centre for Sustainable Business, argues that it is.

"There's a need for SBTs for water, for land, for biodiversity, for oceans - because we're not bending the curve in the right direction on any of them," he says. "The reason we're taking a science-based target approach is that this has gained an enormous amount of traction for business on climate.

"Business wants to know: 'Tell me how much I have to do. And then I'll get on and



The Science Based Targets initiative (SBTi) has worked with around 1,000 companies to reduce their carbon emissions in line with the best available science.

“The way I like to view it, is that they move from doing a little less badly to doing enough”

Kevin Moss, WRI

The SBTN's aim is for widespread adoption by companies and cities of SBTs on water, land, oceans, and biodiversity by 2025.

do it.' But we have to tell them what is their fair share in solving the problem so they know what they're aiming for.

"The previous world was one in which the sustainability person would come up with a target, the company would meet it and then they'd say: 'OK, we've got a new target'. The CEO would say: 'Well when's this going to end?', and the answer was: 'I don't know when it's going to end'.

"So from the corporate perspective, that's the problem SBTs solve. They tell a company how much is enough. And companies are good at doing stuff once they know how much is enough.

"They also move on from incremental improvements. If you're always doing another couple of percentage points and you don't know how much you've got to do, you don't make the big transformation or decisions.

"The way I like to view it, is that they move from doing a little less badly to doing enough."

Moss is confident that the **SBTN** will be able to come up



with meaningful targets that are as easy to grasp as those to mitigate climate change.

“We’ll have an equivalent to that Paris number. In some cases, it’ll be a statement like zero loss of land or zero deforestation. But we’ll have some sort of apex target, like the 1.5C figure, that the methodology delivers against,” he said.

“I’m not anticipating or expecting the CEO of a company to know what the apex targets are for each area. I want the CEO to say to their people, OK we’ve got 180 locations, I want every one of those locations to be compliant with SBTs.

“So that’s how I see it. A complicated set of scientific issues being rolled up into a simplistic dashboard for an executive team.”

Alexis Morgan, the global water stewardship leader for the Worldwide Fund for Nature (WWF), agrees. He says that so far companies have set incremental targets on reducing water use, compared with their existing practices, without considering the wider picture.

“The way in which water is being used right now

“We’ve
already gone
past
planetary
boundaries.
And we
don’t seem
to be
recognising
that

Alexis Morgan, WWF



doesn’t account for how much is available in nature, and when you don’t account for that properly, then the numbers that you’re setting are divorced from reality,” he says.

“By reducing demand without understanding supply, you’re just operating with half an equation. And so science-based targets are needed to add that second part of the equation into the mix.

“Some people believe the technology can indefinitely extend and stretch our ability. But I think in many systems we have already gone past planetary boundaries. We have gone past system limits. And we don’t seem to be recognising that.

“There needs to be some level of recognition that we cannot continue to do the business-as-usual, status quo approach. Our business model needs to not just seek to have less impact but to begin to be a solution to that problem.”

Morgan insists that we now have the science – with modern weather forecasting and flood projection

technology – to set meaningful targets on water.

“It’s not a matter of is it doable, it’s a matter of is it a priority? Increasingly as businesses see the impact of this hitting their operations, they begin to realise that, yes, it is a priority because it affects communities, businesses, tax revenue – it affects all of those different things,” he argues.

“The challenge is developing a methodology and approach that everybody finds acceptable. It’s that proverb of if you want to walk fast, walk alone, and if you want to walk far, walk together. But walking together is always much slower.

“Bearing in mind that getting to a number like the 1.5 Celsius Paris Agreement target took 15 to 20 years. We’re trying to accelerate that process. It will be an evolving pathway but I think we’ll see something in the next 12 to 18 months.”

And, while the focus for WWF has been on water so far, Morgan agrees that other issues, like biodiversity and land, are equally as important.

“There’s still a bit of a question in my mind of how the integration of those is going to work because nature doesn’t operate as distinct systems. The line in the sand between land, climate, water and oceans is a very thin one, if there’s one at all,” he said.

“But I don’t see any of them as being more or less important. What I would say is that they all have to be addressed because they’re all linked at the end of the day.” ■

Fears for factory safety in Bangladesh

Witness signatories to the Accord on Fire and Building Safety in Bangladesh fear its successor organisation was "woefully unprepared" and may need to be replaced.

Simon Glover reports

The Bangladesh Accord, one of the few positives to emerge from the rubble of the Rana Plaza disaster in 2013, handed over its duties to a new body, the RMG Sustainability Council (RSC) earlier this year.

All sides – factory owners, trade union leaders and Accord officials – spoke publicly at the time of their confidence that the new body would be sufficiently independent and robust enough to succeed in its role of overseeing garment factory safety and worker training. But privately, some suggested that it was too close to the Bangladesh Manufacturers and Exporters Association (BGMEA) which has never hidden its desire for these roles to come under local control.

The BGMEA finally got its way in June when the RSC



▲ The Rana Plaza building collapse in Dhaka, Bangladesh.

formally took over from the Accord which has represented European brands and retailers on garment factory safety in Bangladesh since the Rana Plaza building collapse.

Later that same month, the Nirapon factory safety programme – which represents 21 mostly North American brands and retailers in Bangladesh – announced it was leaving the country and would in future be based in North America.

The BGMEA, which had been in dispute with Nirapon, appeared to be nearing its goal for the RSC to oversee safety for all garment factories in Bangladesh.

However, a spanner has been thrown into the works by four of the witness signatories to the Accord – the Clean Clothes Campaign, the International Labor Rights Forum/Global Labor Justice, Maquila Solidarity Network, and the Worker Rights Consortium.

Fearing that progress towards factory safety in Bangladesh is at risk, they jointly published a public brief in which they expressed fears that the BGMEA was exerting too much control over the new body.

They say that the transition to the RSC – which came at a time when the garment industry in Bangladesh was dealing with

the massive economic and human impact of the coronavirus – should have been postponed.

The signatories point out that, although the Accord has been replaced on the ground in Bangladesh, it remains in force as a legal agreement – signed by the European brands and retailers who source garments from the country – until at least 2021.

The RSC is now responsible for continuing the Accord's work in the country including factory inspections, remediation monitoring, safety training and an independent mechanism for garment workers.

The brief concludes that if the RSC is "not able or willing to carry out the requirements of the safety programme outlined in the Accord agreement", the Accord's signatories should terminate their relationship with the RSC and replace it with local or international engineers.

"The Accord is the best example in the global garment industry of how industry, labour, and civil society stakeholders can come together and bring meaningful change to workers' lives through a binding, credible, and transparent commitment to action," say the signatories.

"The elements that have contributed to the Accord's historic success must be preserved going forward. Otherwise, the immense progress in factory safety made over the seven years since the Rana Plaza disaster may be lost, and the lives of millions of workers once more put at deadly risk." ■

“
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EMS 551065

Financial climate driving 'cheap clothes' searches

LONDON – A new UK study assessing Google Trend analytics has found that amidst the first lockdown, searches for 'cheap clothes' jumped by 46.3 per cent. *The Cheapest Countries* study, by Pink Casino, highlights the extent to which financial constraints exacerbated by COVID-19 led shoppers to indulge in perhaps more unsustainable consumerism. The findings also indicate a marked increase in the number of people in search of clothing sales and discounted items, whilst 'buy now, pay later' and 'free trial' queries also proved popular.

Despite all the talk and expectation of second-hand apparel demand to soon trump fast fashion searches online (according to consignment stores like ThredUp, at least), this research compiled by Pink Casino suggests that COVID-19 might be delaying such a transition.

Unemployment rates rose to 4.8 per cent only days ago, whilst many others will be on reduced salaries as part of the country's furlough scheme, leading people to choose the most cost-effective approach.

Amongst students, this certainly rings true too, with 'student discount' and 'sale' and 'buy now, pay later' all popular queries on sites including ASOS and Boohoo.

Overall, Brits are said to be 98 per cent more likely to search for 'buy now, pay later' at present, than they are for 'second-hand clothing', according to Pink Casino.

Web: bit.ly/3f4XD1x

Hundreds of textiles tested for microfibre shedding

BRISTOL – The Microfibre Consortium (TMC) has completed tests on over 200 knit, woven and laminated fabrics and yarns in a range of weights and constructions as it looks to develop a comprehensive textile fibre fragmentation database.

These test results for the new pilot database will be rolled out to consortium members shortly. The move comes on the back of work throughout 2020 by the TMC with the University of Leeds to develop an internationally aligned method for measuring microfibre material loss from textiles.

TMC revealed that the work on a pilot database has been underway throughout 2020 and among the 200+ materials and yarns tested are around 70 knit fabrics; 50 woven fabrics and 15 laminated fabrics, ranging in fabric weights from 18g/m² to 455g/m².

Fabrics were supplied by consortium member brands including 33 vendors and test results were derived from strategic internal testing with the University of Leeds, members' own in-house testing, supplier testing and, more

recently, data on TMC member fabrics that have been provided by invited third party laboratories.

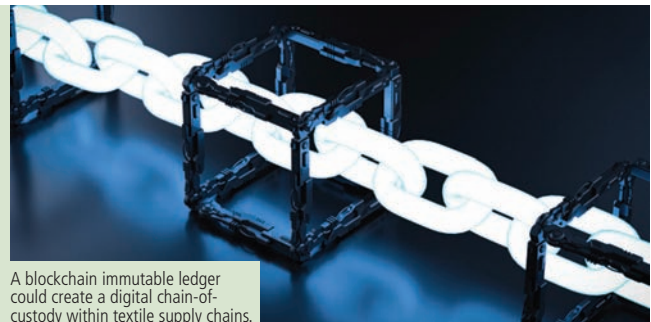
Phil Patterson, managing director of textile consultancy Colour Connections and new chair of the TMC Board, comments: "Pragmatic recommendations for the industry must be based on credible scientific evidence and the launch of the fibre fragmentation database will enable TMC members at the brand, retail, supplier and research level to work from one centralised platform."

Web: bit.ly/38Qqa3l

IBM partners to launch blockchain project

NEW YORK – Blockchain provider IBM has partnered with textile manufacturer Kaya&Kato to develop an immutable platform that can log the transaction of 'sustainable' materials throughout the supply chain. With support from the German Federal Ministry for Economic Development, this use of blockchain will afford stakeholders greater insight into operations and will instill transparency from the supplier to the customer – ensuring nothing is subjected to counterfeit.

"By creating shared visibility, the technology helps foster trust among companies and their suppliers, businesses and especially their consumers. We



A blockchain immutable ledger could create a digital chain-of-custody within textile supply chains.

want to set an example within the industry and offer other companies the opportunity to join us in advancing development and helping to create solutions for supply chains," said Christian Schultze-Wolters, director of blockchain at IBM.

With transparency deemed imperative to catalysing industry-wide change (as it's thought that if consumers are made better aware of a brand's sustainability credentials, they can make a conscious decision to stray from those doing the least), IBM wants to bring its blockchain platform to

the party to enable greater supply chain visibility. In practice, the company's immutable ledger would monitor the movement of materials throughout a supply chain to ensure a company purporting the use of 'sustainable materials' can have these assertions corroborated. Such a digital chain-of-custody would not only snuff out counterfeiters from the equation, but would also provide accessible data to everyone within the supply chain that cannot be tampered with.

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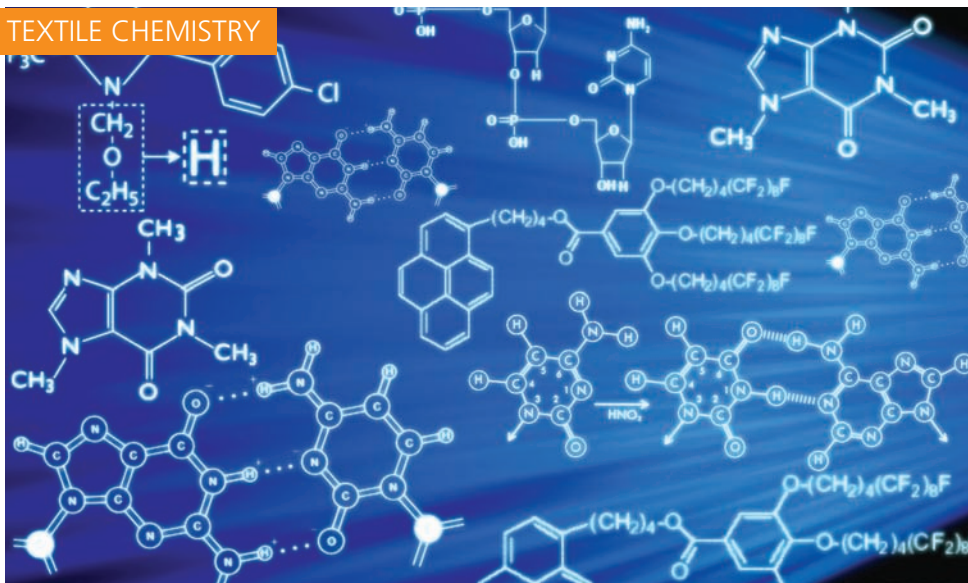
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Textile chemical giants launch new alliance

Leading textile chemical firms aim to develop a globally harmonised chemical 'sustainability standard' along with screening tools that cover hazards through to environmental and social impacts.

By John Mowbray

The new Sustainable Chemistry for the Textile Industry (SCTI) group has come together in a bid to “drive transformational change, inspire action and lead the textile and leather industries through sustainable chemical solutions and new levels of resource productivity,” said Rohit Aggarwal, the president of Huntsman Textile Effects and the

inaugural chairman of the SCTI, shortly after it was launched last month.

Huntsman has been joined by founding members and competitors Archroma, CHT Group, Kyung-In Synthetic Corporation (KISCO), Pulcra Chemicals, Rudolf Group and Tanatex some of whom were signatories to an open letter to the ZDHC back in May 2018 that raised concerns about its Gateway Chemical Module.

Interestingly though, one signatory to that original letter – DyStar – is a notable absentee from the new group. “We are happy to see that SCTI was finally launched,” Eric Hopmann, CEO of DyStar told us. “We are actually following the same principles and support the vision of SCTI, but the path to be taken towards reaching these goals is different to what DyStar envisaged.

“DyStar still believes and is committed to what had been defined in the (original) open letter which the GCIRT (Global Chemical Industry

Round Table) published in May 2018 and still believes that this is the right way to follow. The group had a different view on the path to be taken, therefore and as difficult as this decision for one of the founders of GCIRT was, we thought it was better to step out of the initiative for now. But we are still close to this group and do not exclude a possibility for us to re-join at a later stage.”

Hopmann did not elaborate on the exact key differences, but the emergence of SCTI does seem to have caused confusion among some retailers. One expressed surprise to us privately about “yet another environmental initiative on textile chemistry, when the industry keeps talking about one globally harmonised standard”.

But the SCTI says harmonisation is exactly what it aims to do through a new standard for chemicals used in textiles, as well as a supporting assessment/screening tool, to cover hazards through to environmental, ecological and social impacts.

Marcos Furrer, chief marketing and innovation officer at Archroma says many tools to do this are already available. “We founded SCTI, with six other chemical leaders, to join forces for the greater good, to show the industry that solutions already exist.”

When asked whether yet another group looking at textile chemistry blurs the boundaries with existing initiatives such as the ZDHC, Aggarwal said: “We continue to support the harmonisation of chemical





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management via the ZDHC Foundation ... in alignment with the UN Global Compact and its Sustainable Development Goals. We have also been careful to consult with stakeholders across the supply chain as we created SCTI."

The move doesn't seem to concern Frank Michel, CEO of the ZDHC Foundation. He told us: "Those guys have good expertise and want to position themselves as thought and industry leaders in the textile and leather space. Without any doubt, they also aim to be the leaders within ZDHC. We welcome the initiative."

Aims and objectives

One of the main aims is to build a holistic assessment tool that generates a sustainability rating for textile chemicals, dyes and inks. The group says this tool will be the first to include all relevant chemical requirements from all key RSLs and MRSLs in use today, but it will also go further by rating the environmental, ecological and social impacts of textile and leather products as well.

So, will other chemical firms be able to join the new alliance? Or is it simply a 'big boys club' trying to protect their own interests? Aggarwal denies this is the case: "One of the core beliefs of SCTI is that we cannot hope to achieve our sustainability goals without industry collaboration. Our intention is to be inclusive and open and to attract more supporters from the industry and along the supply chain."

He says the current focus is on setting up SCTI and it expects to be actively recruiting new members from 2022. "We'll be able to share information about the membership fee and other matters later." For now, he says, to become a member, a company will need to **meet five criteria**.

Essentially, the new SCTI alliance members are already Bluesign system partners and the group expects newcomers to meet these requirements – although to become a system partner can be an expensive exercise for some smaller companies.

"For a small scale operation like us just the Bluesign joining fee is more than enough to say forget it," one European chemical formulator told us.

Yet it's clear the new group remains independent from Bluesign and other chemical industry NGOs such as ETAD, TEGEWA, the SAC and especially the ZDHC. The fact the new group is also mandating Bluesign likely means the SCTI won't create new criteria and the associated misalignment on standards. Or will it? While Aggarwal confirmed that to become an SCTI member a company must also be a Bluesign system partner, he noted: "It's our intention that the SCTI sustainability scoring tool complements *and builds on* the Bluesign criteria."

Another key point is exactly how it intends to measure resource savings such as water and energy? Will these align with existing industry guidelines? "While work is still underway, SCTI

members are sharing knowledge and resources to develop pragmatic methodologies and a scoring system that measures resource usage," he told us. "We plan to take a holistic approach and consider resource consumption during the manufacturing process, the use phase of the chemical, dye or ink and the use phase of the final textile or leather product."

Importantly, the new group is keen to verify all data – which will be very important to clothing retailers.

"We have decided that the quality and accuracy of all the information we provide to the sustainability scoring tool will be verified by an independent administrator."

But rather than being 'verified by an independent administrator' wouldn't it be better if this data was verified on-site by teams of independent experts?

Time will tell if the SCTI will satisfy the brands' needs for a hazard screening and resource utilisation tool. Its emergence is likely derived from the idea the chemical companies thought that Bluesign system partnership would be automatically 'level 3' on the ZDHC gateway. Only to be surprised that some brands wanted to also use other additional screening tools.

To meet its objectives, SCTI needs wide support from not only brands and retailers but from the wider chemical sector which the large companies both buy from and sell to. It's not yet clear if the membership costs will be an incentive or barrier to this goal. ■

- Engage in the industrial manufacture of chemicals for the textile/leather industries
- Agree to subscribe to the vision, mission, principles and objectives of SCTI
- Agree to comply with the constitution, code of ethics and policies of SCTI
- Agree to a sustainability audit by an independent and reputable industry organisation
- Be a Bluesign system partner

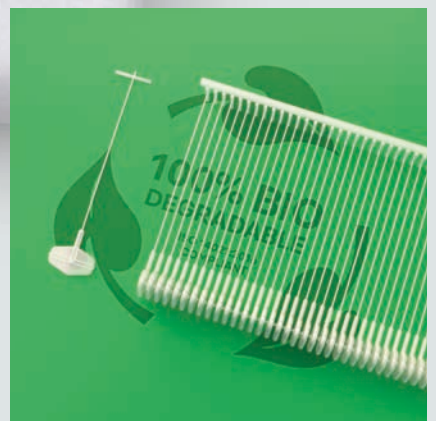
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Phil Patterson
Correspondent,
Chemistry & Retail



The blue paradox

Phil Patterson takes a look at the impacts of dyeing and finishing denim and says that from an environmental point of view, it's a bit of a mixed bag.

Moral Fibre

Just because recycled polyester is produced from non-renewable sources doesn't necessarily mean that it's less sustainable than some other so-called 'green' fibre. Phil Patterson reports.

Reduce, re-use, re-dye?

Is recycled polyester really good for the environment? Phil Patterson takes a look at some of the current issues and challenges with dyeing recycled polyester fabrics.



An ancient fibre for a modern world

Linen fabrics made from flax are the oldest known of all textiles and today's clever chemistry means that linen clothes can be comfortable as well as eco-friendly. By Phil Patterson.



The digital revolution coming anytime

Despite what some people say digital printing isn't a massive environmental breakthrough - but if it helps consumers to buy fewer, bespoke items it could have indirect benefits. By Phil Patterson.

'Comply or die'

Well, not literally. But the very specific environmental problems facing the textile dyeing and finishing industry are related to economics, the scale of the industry and the desperate need for compliance. By Phil Patterson.



Visible benefits

Phil Patterson from Marks and Spencer's talks about how supply chain traceability has become crucial to the UK clothing retailer's business.

Woolly thinking

The wool industry has really cleaned up its act in recent years, according to Phil Patterson, who says the fibres should benefit from the increasing popularity of eco-textiles.



Great ideas don't always hold water

With water scarcity in textile producing regions already causing concern, there has been an upsurge in research on water-free dyeing. But, as Phil Patterson points out, you can't always believe the hype.



Turning a new page

Phil Patterson has been a regular contributor since 2007. For our 100th edition, he looks back at some of the key issues that have shaped chemical management and ponders the future.

In November 2006, Dr Richard Blackburn from the University of Leeds arranged what was probably the world's first conference that pulled together actors from all parts of the supply chain to take a holistic look at the environmental impacts of textiles.

This event, held in Leeds, which led to the formation of the short-lived but highly influential RITE Group, should go down in history as the time when the more responsible parts of the industry started to work together to find ways to reduce their environmental impacts.

At the event I delivered a presentation in my role as dyeing, printing and finishing manager at Marks and Spencer and, afterwards, a well-known textile journalist asked me if I thought there was merit in launching

a magazine dedicated to the environmental aspects of textiles.

A resounding yes and 100 editions later, the aforementioned journalist has now asked me to give my personal thoughts on how chemical management in the textile industry has evolved over nearly 14 years but, in order to put that more recent timeframe into perspective, it is necessary to briefly consider the evolution of the industry prior to February 2007 when *Ecotextile News* was first published.

From the day that William Henry Perkin inadvertently invented the first synthetic dye, mauveine, in 1856, there have been problems with the discharge of harmful synthetic chemicals into the environment and issues relating to the health and safety of textile workers and wearers.

The increase in chemical manufacture, discharge and damage grew enormously for over a century before any large-scale, organised controls were put in place and, if we're honest, we've been playing catch-up ever since.

In addition to complex synthetic chemicals, there were large volumes of basic commodities like acids and alkalis that wreaked havoc with natural water courses and worker wellbeing. Natural chemicals also played their part in depleting oxygen from rivers that left many incapable of sustaining meaningful life.

In short, the period from the 1850s to the mid-to-late 20th century was a disgrace from a chemical management perspective - yes, lots of innovation and knowledge was transferred to life-saving industries



chemicals that were illegal and others that were known to be problematic and was a good example of a retailer being able to credibly go beyond legislation because of the close, co-dependent relationships with its suppliers.

Around 2003 everything changed. It was deemed that the preferred supplier list was holding the business back and sourcing was 'liberated' as Marks and Spencer sought to achieve the same material prices as mid-market competitors.

Almost overnight, the business went from communicating with trained, informed, co-dependent, approved suppliers about business requirements, to whistle-stop tours of the world to visit and approve new mills and to roll out education programmes to the new suppliers – where we were a mere sliver on their customer pie-chart.

It was exhausting and we got push-backs in the form of "you are the only brand that requires this chemical compliance". Unbeknown to them, other leading brands, who had also developed RSLs and were also getting the same push-backs, were talking behind the scenes and in 2004 the AFIRM Group (Apparel and Footwear International RSL Management) was formed so that brands could stand shoulder to shoulder and give a coherent message to the global industry that

the deliberate use of harmful chemicals in textile manufacturing was not acceptable.

It didn't even matter if a chemical was legal; if it was harmful and safer alternatives were readily available the message was clear. The chemical should not be used. What cannot be overlooked is that this was a self-formed group that was established in order to manage chemicals more responsibly against a backdrop of non-existent, weak or patchy legislation. Of course, there was an element of doing what was necessary to ensure products that were sourced from developing nations were legal when placed on the market in developed nations but there was also a degree of altruism that made life more difficult for the member brands. It should also be noted that the individuals who represented their brands on the

Chemical management can broadly be split into avoiding the worst and promoting the best

AFIRM group were not universally popular with their commercial colleagues who, in many cases, balked at the extra cost of testing or of buying compliant materials. Sixteen years later this situation persists in way too many brands.

Chemical management, like any sustainability initiative, can broadly be split into 'avoiding the worst' and 'promoting the best'.

Promoting the best options may involve going well beyond legislation with newer, small-scale innovations and this area remains competitive with chemical companies, wet processors and brands fiercely competing for attention, whereas 'avoiding the worst' has now largely settled into a collaborative, non-competitive space.

After all, promoting textile products to consumers as 'legal' or 'safe' isn't going to sell too many garments!

The impact of AFIRM in creating the non-competitive space and making huge strides forward with respect to 'avoiding the worst' chemicals should not be understated and its efforts have been strongly supported and informed by independent RSL certification schemes such as OekoTex and Bluesign.

In 2007 I started work as an independent textile consultant. Three months after the landmark EU REACH (Registration, Evaluation, and Authorisation of Chemicals)



damaging substances. But only if they are adopted and widely rolled out.

One of the major challenges facing the chemical and textile industry is balancing increased demands for transparency and full disclosure of chemical content with the never ending 'my standards are tougher than your standards' race. Legislators, pressure groups and keyboard warriors need to understand the concept of NOELs (no observable adverse effect levels) rather than pushing for literal zero limits, which is something that will increase the cost of dyes and chemicals maybe ten-fold with minimal societal benefit.

If standards get foolishly low, expect chemical companies to provide less information – just why would they volunteer that their product has 0.001 ppb of kryptonite in it when they know there are those wishing to pounce on the presence of any chemical irrespective of concentration or likely exposure?

Equally, chemical companies should tread very carefully when promoting "chemical X-free" formulations – they can't say zero is OK for marketing in one breath and say zero is ridiculous for compliance in the next.

To date, we've done a pretty good job of reducing the deliberate use of harmful chemicals in wet processing

and of reducing RSL failures. There'll always be failures and there'll always be work to be done but, consumer textile products have never been safer.

We therefore need to be careful of falling foul of the law of diminishing returns where administrative and testing burdens are so far out of step with risks that we use huge amounts of money and people to prove things that cannot be there, are not there.

Hands up who has used Navy Blue Colorant recently? I thought not.

Hands up who thinks it's vaguely defensible for the Swedish authorities to demand test data to show the absence of phthalates in plain cotton T-shirts or else be subjected to what amounts to a fine? Again, I thought not.

I believe we've reached a point where we need to start to look beyond simple avoidance of harmful chemicals and instead focus on the volumes of chemicals used, the harm caused by 'safe' chemicals and the legal and procedural mechanisms that protect the status quo and discourage change and innovation.

EU strategy

The EU recently launched a far-reaching chemical strategy that covers some of these issues and it's very encouraging. At least in print.

Whether it translates into big

changes in real world chemical management remains to be seen, but it predicts that chemical use across all industries will double over the next 10 years and this in itself is a concern. This will inevitably require extraction of large amounts on non-renewable resources, energy intensive chemical synthesis and transportation to the places where these chemicals are used, which will inevitably lead to negative environmental impacts.

I recently completed a report for the Laudes Foundation on chemical circularity in the textile industry and the key aspect that we all have to grasp is the fact that most chemicals are single use items which are then dumped into the environment, possibly having been partially remediated.

We also have to give serious consideration to the presence of chemicals in finished products and whether that hampers material recycling – something the EU SCIP (Substances of Concern in Products) database is addressing.

If we start to seek opportunities to recycle and re-use chemicals, use could potentially double whilst seeing reduced net extraction, synthesis and discharges to the environment.

It's a simple choice. Make more–use more–dump more or make less–use more–dump less.



And before everyone jumps on a chemical circularity PR bandwagon as the next big thing, conveniently trying to usher very current problems away from scrutiny, we shouldn't forget that there is much work to do on pollution from the textile industry. Regulators and the fashion and textile industry have not done anywhere near as good a job on the basic treatment of effluent as it has on restricted substances on products.

But there is a good chance the textile industry can tackle both chemical circularity and pollution symbiotically. Zero liquid discharge mandates that no liquid effluent can leave a factory and thus water recycling is necessary – and textile factories that have been forced to adopt this model have quickly realised that using less water makes the whole process cheaper with a knock-on benefit that they also use lower volumes of chemicals – which ordinarily are applied in g/l quantities (fewer litres = fewer grammes). Additionally, salt is recovered and can be re-used.

If the industry focused on chemical recycling at each upstream sub-step of production, then very low levels of chemicals would be in the final effluent and recycling would be even cheaper and more efficient.

Zero liquid discharge

I believe mandatory zero liquid discharge is probably the way to go and in doing so it would deliver zero discharge of hazardous chemicals, net water savings of around 90 per cent, chemical savings and promotion of a more circular approach. What's there not to like – except for increased energy consumption for the recycling?

Until that happens, the biggest chemical issue facing the industry is the large amount of 'safe' chemicals such as starch, waxes, pectins, salts and so on being discharged and the responsibility for ensuring compliance should rest with the mills and the regulators though, sadly, in many regions both tend to get away with what they can. Clothing brands can change that ambivalent attitude by refusing to place orders with those that pollute but, in order to do that, they have to have full knowledge of who they are working with and also have the appetite to make tough decisions. Sadly, in the case of many brands, both are missing.

One critical element in moving the industry forward, highlighted in the EU strategy, is simplifying and reducing the cost of bringing alternative chemistry to market. Currently, the cost and hassle of overcoming the somewhat

“
I believe mandatory zero liquid discharge is probably the way to go

insurmountable barrier of the precautionary principle means the cost of developing, scaling and proving beyond reasonable doubt that new chemistry is safer is so off-putting that the status quo tends to win out – even if the incumbent chemistry is problematic.

If we are to shift from avoiding the worst, to promoting the best, the authorities have got to back up their words with actions – if we lower the cost of registration and provide subsidies to help newer, better chemistries overcome the inevitable barriers associated with economies of scale then the future for chemical management may be brighter than it looked back in February 2007 when the ground-breaking *Ecotextile News* first appeared. ■



Screening uncovers key chemical contaminants

The first results of a new screening tool for impurities found in bulk commodity chemicals used during textile wet processing has identified the primary contaminants.

By John Mowbray

The screening tool, developed by US software provider Scivera and Mumbai analytical testing lab NimkarTek, was used in pilot trials on more than 330 different samples over the past year from 55 different textile and apparel factories.

Until recently, it wasn't realised that bulk commodity chemicals bought cheaply on the open market and used routinely in wet processing could be heavily contaminated with restricted chemicals that eventually end up in wastewater.

During the pilot trials that ran through 2019 and early 2020, Scivera and Nimkartek registered, processed, tracked, scored and reported on 36 different types of commonly used chemicals including the dye fixing agent sodium carbonate (soda ash), reducing agent sodium hydrosulphite

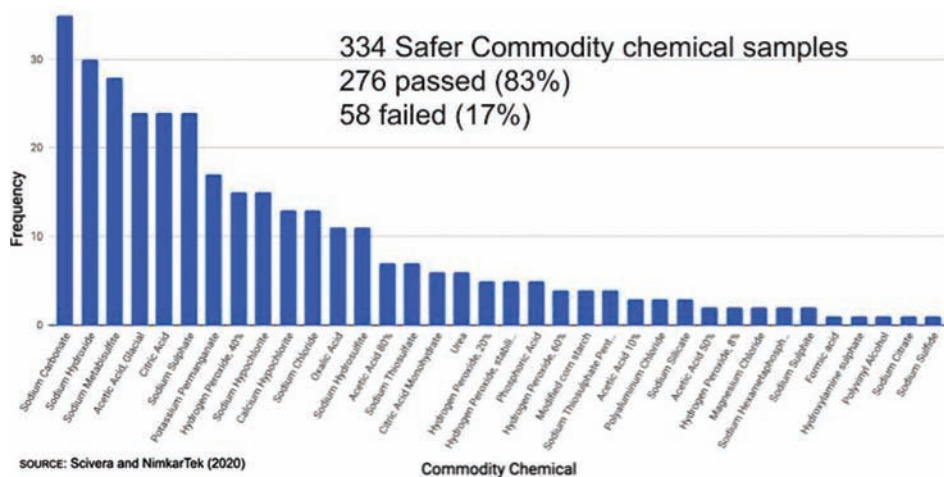
(hydros) and neutralising and pH neutralising agent acetic acid.

Of the 334 commodities analysed, 276 'passed' while 58 'failed' the test. But what does this actually mean?

"Under 'Safer Commodity Screening Programme' rules, a commodity chemical sample passes when no ZDHC MRSL analytes are detected in the sample,"

▼ The chart shows the total number of samples screened during the first phase of the programme by chemical. Chemicals that had one or more failing samples include sodium metabisulphite, potassium permanganate and oxalic acid.

SAFER COMMODITY SCREENING FREQUENCY BY CHEMICAL



Scivera president Joe Rinkevich told us.

Another important part of the programme is rating the overall trend for a specific commodity chemical from a specific supplier or trader. "The nature of commodity chemicals trading shows that one 500 kg batch of a chemical can come from one source, and the next batch from a completely different source, yet is still delivered by the same trader. The Safer Commodity Screening Score includes a trend rating for each commodity trader or supplier by specific chemical. That way users can find the most reliable suppliers of specific commodity chemicals for their processes."

A supplier or factory subscribes to Scivera's cloud-based 'SciveraLENS' platform, registers the specific commodity chemicals of interest, samples these from the textile mill, dyehouse or laundry and sends them to Nimkartek, which uses its 'in-screen' analysis to test for commodity chemicals used in the textile, footwear, and apparel industries.

“It provides quick and reliable review of commodity chemical samples, thereby offering an unprecedented ability to identify substances restricted for use by the Zero Discharge of Hazardous Chemicals (ZDHC) Programme or impurities that may originate from other industries,” claims Nimkartek director Ullhas Nimkar. “The data indicates that common contaminants in these chemicals are heavy metals, phthalates, and halogenated solvents.”

After laboratory analysis, the results are logged and scored on the ‘SciveraLENS’ platform to provide brands and manufacturing facilities with a scalable method to

register, track, score and visualise screening results and trends, for each chemical and its source.

Rinkevich noted: “Being able to view the meta-data for even this modest sample size we have to date is starting to show connections between specific commodity chemicals, their respective toxicology characteristics, their contaminants, which ones pass more often than others, and some early clues to why some fail.”

Commodity screening enables brands and manufacturers to identify the best, safest alternatives for bulk chemicals and prevent potential hazards from entering their supply chains.

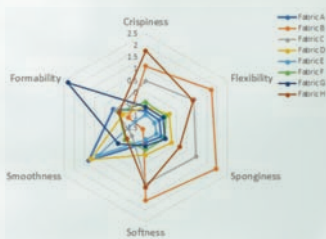
One concern could be that

some of these chemicals are recycled from others such as the pulp/viscose process, which yields massive amounts of Glauber’s salt. These co-products from different industries are promising examples of industrial ecology, keep costs down and reduce the use of non-renewable chemistry.

Higher quality bulk chemicals would require extra purification and maybe an attitude to treat co-product chemicals as waste. However, this initiative addresses a previously unforeseen source of wastewater pollution.

Following initial work with Levi Strauss, the programme is to be rolled out to other brands in 2021. ■

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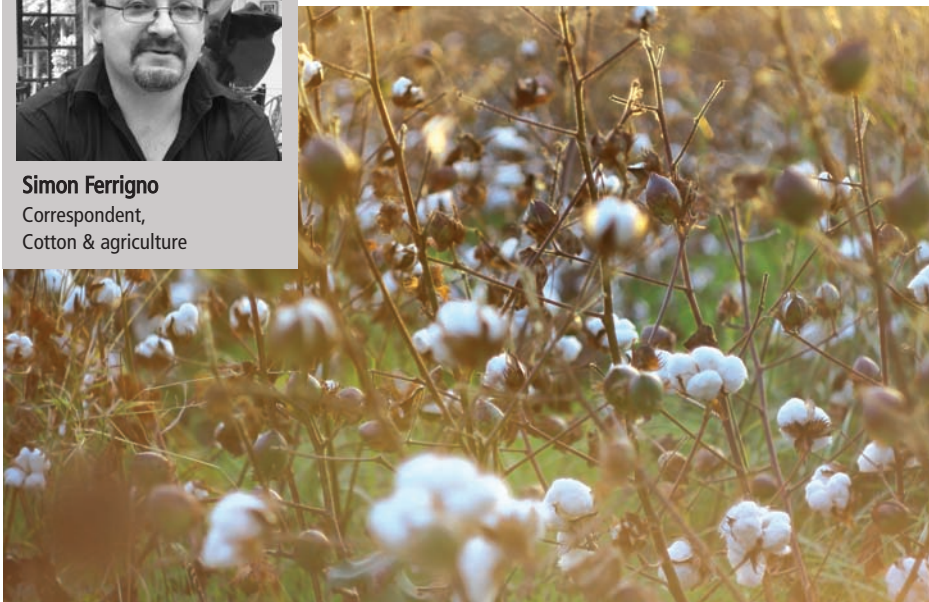
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Sympatex focuses on recycling, elimination of pollutants and climate neutrality.



Simon Ferrigno
Correspondent,
Cotton & agriculture



Transparency: the will still lags behind the need...

Certification and verification have been the bedrock of sustainable cotton for the past few years, with more standards and schemes appearing. Alongside them have come a proliferation of initiatives on transparency and traceability, some covering the full supply chain (GOTS) and some just part of it (the latter being most common). We have also moved from the tracing of documents to new developments in using markers and Blockchain to identify cotton.

Traceability is suffering from a similar mission creep to standards. There are more and more organisations competing to offer more and more 'solutions'. However, many systems are incompatible with each other even where working in combination might be how they deliver something useful, be it full supply chain coverage, cross-system compatibility, or the ability to carry additional information (on impacts, for example). Even as more systems appear, there are so little changes in terms of full

“**It is quite clear supply chains in textiles are traceable... with a will**”

The UN Global Compact (2014) defines traceability as “the ability to identify and trace the history, distribution, location and application of products, parts and materials, to ensure the reliability of sustainability claims, in the areas of human rights, labour (including health and safety), the environment and anti-corruption”.

supply chain traceability and transparency down to the end of the supply chain.

New systems also raise concerns over privacy and civil liberties. Xinjiang offers the most extreme example of misuse of data and transparency, but debates about tech companies and their use of data are growing and so concerns must exist over some of them moving into transparency, traceability and data handling for sustainability.

Blockchain, once the hope for a free and open system, is increasingly privatised, while its open data model can leave farmers and workers vulnerable in many ways.

More traditional systems have gone to the wall (Historic Futures), have not been adopted in cotton (Check Organic) or have been open to abuse – GOTS recently found 20,000 tonnes wrongly certified organic in India.

And for all this promise of data, companies maintain they have no visibility into their supply chains past Tier 1 and Tier 2. The spinning mills and gins remain opaque, despite the fact that shipments of cotton are recorded and can be logged electronically in many if not most of the world's spinning mills and quite a lot of gins.

It is hard to escape the thought that this opaqueness suits the sector very well, in the same way that mass balance sourcing does. It avoids the need to perform due diligence and to identify and rectify real problems, with the possible reputational damage it **1**

might entail. Yet at the same time, the requirements of design – which is generated by brands – means information is flowing down towards various suppliers, including on the quality of fibres, which influences the decision on where they may be sourced. It is quite clear supply chains in textiles are traceable... with a will.

In 2014, *the State of Sustainability Initiatives*¹ report by the International Institute of Sustainable Development (IISD) in Canada described traceability systems as the link between sustainability programmes and standards and claims:

“Traceability systems help ensure the integrity of claims by providing accountability between standard-compliant products produced and sold,” it said.

Yet the use of mass balance means this presumption is weakened as there is no link between what brands use and what they might have supported.

IISD identified **four methods of traceability** with different levels of responsibility.

The first two effectively remove responsibility from brands for the product used, be it for the certified or verified product or the actual, non-certified product used instead. The responsibility lies instead with the

“Traceability is a need across the sustainable value chain, allowing information to flow on demand and involving market projections, quality requirements, investment needs and real impacts”. *An Insider’s Guide to Cotton & Sustainability*, West Yorkshire: MCL Global, 2012.

“ Due Diligence approaches need to be the norm, not the exception, in textiles

- 1 Book and claim, with production volumes certified but with no traceability or product ownership.
- 2 Mass balance, where product is tracked for some of the process but may not be used in final products.
- 3 Segregation, where the product is followed and used at all stages.
- 4 Identity preservation, where the product is individually identified at all stages and in all products.

certifier or promoter, but this is second-hand. The recent withdrawal of BCI from Xinjiang – after quite some time during which questions were raised – begs the question of how effective this is.

The idea that to address problems, ‘owners’ (as in shareholders or investors) must be able to see the impacts of their actions goes back at least to the early days of free market theory over 200 years ago. That visibility is the reason business owners in industrial areas invested in sanitation and housing for their workers. It is the reason due diligence approaches need to be the norm, not the exception, in textiles.

Know The Chain’s report highlights how poor this is in cotton to date, albeit there is some improvement. Their section on ‘Traceability and Risk Assessment’ (2018) shows a score of only 31/100 on average here for companies on their ability to disclose information on their ‘suppliers and workforce’ and on forced labour.

It says: “Traceability and risk assessment is among the lower-scoring themes of the benchmark. Disclosure on traceability is limited, showing a lack of both first-tier supplier lists and information on the sourcing countries of raw materials. Less than half of the companies disclose conducting a human rights

risk assessment on their supply chains.”

The report does note an improvement for companies benchmarked in both 2016 and 2018². However, improvements for the full supply chain were limited, with only a quarter of companies who “disclosed information on the sourcing countries of raw materials at risk of forced labour in their supply chains”. Only two companies were able to give details on the countries where they sourced materials. Amongst the actions recommended by Know The Chain as a result is for companies to “undertake human rights risk assessments which evaluate supply chains for forced labour risks, for example, on specific raw materials, regions, and/or groups of workers”.

This is why it is so important that brands do not rely only on standards but understand what is happening in their actual supply chains, and not just at Tier 1 or 2. This means tracing their actual product use – and understanding where it comes from and what problems it faces; a brand can then decide which are the most urgent and how to deal with them. Is it agricultural practices? Is it soil health? Are there problems or concerns with labour rights?

Fear of fraud has led to more responses than actions, however. This has meant less organic cotton, and more BCI (with the convenient hiding place of being able to claim ignorance of raw material origins).

In 2019, we highlighted that the UK’s Sustainable

“Transparency requires relevant information to be made available to all elements of the value chain. Effective transparency allows companies to act to manage risks more effectively. It is also a primary requirement of due diligence practices, as defined in the OECD Guidelines on Garments and Footwear.” *OECD, Due Diligence Guidance*, 2017.



Clothing Action Plan (SCAP) was reporting actual figures on improvements linked to sustainable cotton, but again this was a false dawn, as the data used was a generalisation not linked to specific supply chains of products supplied to the UK market.

The SCAP report on 2020 commitments included the use of BCI data, that being a mass balance system not able to link production from a particular country to consumption in another country except by using assumptions and averages. When asked about this, BCI said that data used was from its result indicator reporting process using farmer self-assessment data, but it did not clarify how data was linked to UK consumption by effective tracing.

More useful excuses for poor traceability are the incompatibility or expense of systems, especially for larger brands who may mix fibres of different origins and types through blending. However, this should not excuse no tracing at all. Smaller brands have shown how to do full traceability by building bespoke supply chains, for example.

Full traceability within a data carrying system (that is, one that does not just track volumes, bales or paper) would also provide the holy grail... performance data. The answer to the question: 'how is my supply chain making a difference, and where is it not, and how does the data point me towards solutions?'

This is needed if we want to make a difference. When the region producing 30 per cent of the world's cotton is

▲ More accessible, accurate data would allow for frequent soil health checks and swifter action where it's needed.

“**When the region producing 30 per cent of the world's cotton is no longer safe, solutions are what we need**”

“**Too often, averages and assumptions are used where there are gaps in the data**”

no longer safe, solutions are what we need. Bans and withdrawals of custom will not solve anything, unless we give up on cotton altogether for much of our textiles supply.

This is why governments and multilateral bodies need to be involved in transparency and traceability, making due diligence and impact reporting legal requirements. That data is essential to putting pressure on governments in whose jurisdictions bad things are happening, and on brands active there.

It is accurate, real time and constantly updated data that is needed on each region, each field, each programme and each initiative. LCAs might be sexy, but they are a quick snapshot, are expensive and are not really representative of the ongoing picture. Too often, averages and assumptions are used where there are gaps in the data.

This means we need soil tests, water measurement, labour force surveys, financial analyses, ecosystem surveys, and so on. We need to know the soil organic matter (organic carbon) content in soils and how interventions might be increasing or decreasing it, and the soil's capacity to retain water, and how we can reduce pressure on it.

We don't need this just once, but regularly. Even in real time, as sensor technology improves and becomes more affordable.

As for sustainability itself, we don't have time to pussy foot around.

And without good systems in place, how will the mooted Delta Project's data (a framework is due to be released in 2021 by this project, led by ICAC with various sustainable cotton initiatives) be linked to individual supply chains and companies? And without this, how will consumers know what is the best sustainability buy? Good data could easily feed into an open Blockchain, allowing information from all cotton – and not just certified or verified cotton – to be seen and analysed in real time (which would also remove the ability of data controllers to hide or sit on bad news) by all. This would be a perfect support for due diligence.

Traceability and transparency, for all the proliferation of new tools, remain behind – not least because the data is not there to feed them and because the will to be transparent still lags behind the need. ■

1. <https://www.iisd.org/projects/state-sustainability-initiatives>

2. https://knowthechain.org/wp-content/uploads/KTC_AF_2018.pdf



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Simon Ferrigno
Correspondent,
Cotton & agriculture

Cotton Horizons

100 issues later...

The aim of this regular column has always been to shed new light on developments in cotton and agriculture, and also to interrogate the headline claims. These show rapid and substantial growth in 'sustainable' cotton production, but even the most cursory of reads highlights the absence of clear data on impacts and open questions on whether the growth in standardised approaches means some issues have been neglected.

Back in 2007, sustainable cotton included only organic (established back in the late 1980s but only then beginning to take off) and Fairtrade, launched in 2005. Better Cotton Initiative (BCI) and Cotton made in Africa (CmiA) were mere gleams in the eye of their promoters, with early meetings of those who would found the former.

Now we confront an increasingly alarming climate crisis and problems of forced labour on an industrial scale. ●

The picture in 2007

In the first issue of *Ecotextile News*, we reported Organic Exchange's fibre survey results which showed 45 active organic cotton groups for 2005/6, with a growing importance for South-East Asia, especially India. The **Xinjiang region in China** was also growing in importance to organic cotton, the region now flagged up in reports of forced labour and genocide.

Since then, Fairtrade has struggled to make its mark, while the arrival of BCI and CmiA (both in development by 2007) led to claims they were detracting from the claimed 'gold-standard' of Fairtrade organic cotton. Organic cotton growth went into reverse, but largely because of the misreporting of some numbers (already highlighted by Cotton Incorporated in that first



For years now, China's Xinjiang region has been hit by persistent allegations of forced labour, with upwards of 1.8 million Uyghur Muslims thought to have been detained in the largest mass incarceration since World War II.

issue) and a failure to address rumours of fraud in the sector (again, evidenced by recent reports that GOTS has found fraudulent organic cotton).

BCI has itself run into problems around impact data and for not being strong enough on labour issues, but it has 1

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added to the debate and progress of sustainable cotton. Now it may well be too wrapped up in its own bubble - as are all standards - to notice that we are close to the peak of the climate cliff.

BCI has offers a mass balance approach to sourcing, making it easier and cheaper. There were and remain concerns over this however, in that brands also outsource their responsibility for what happens in their supply chains, which can allow some of them to claim no knowledge of their own impacts.

As Subindu Garkhel, senior cotton and textiles lead at the Fairtrade Foundation says: "The understanding about sustainability has improved at the level of businesses, certifications and civil society, and has also led to the proliferation of projects and initiatives but none necessarily have had an impact of a similar extent. The main challenge seems not to be a lack of holistic approaches, but instead a focus on the latest trend in sustainability in the sector."

As well as this problem, Allan Williams, general manager,

R&D investment at the Cotton Research and Development Corporation in Australia, points to the challenges of working with millions of small farmers, adding: "So all efforts to provide more support are better, information about how to improve cotton farming that are focused on the specifics of the farming system in question are welcome."

This is backed up by Anita Chester of the Laudes Foundation, who said in a recent blog post: "Many standards are often binary and top down ignoring the reality that fundamentally changing agriculture can happen only through continuous improvement in systems that recognise and account for the challenges farmers face in their transition away from conventional practices."

We have covered many of these issues since launching this magazine in 2007, many repeatedly: genetic engineering, pesticides use, water, climate change, how to measure the impacts of sustainable cotton, soil management, and traceability and transparency. The table below lists some of the topics, the achievements in dealing with them, the gaps and future needs. ●

1. <https://www.linkedin.com/pulse/world-cotton-day-reminder-we-can-farm-future-hope-anita-chester/>

Developments in sustainable cotton

Issues	Achievements	Gaps/problems	The future
New standards	Widened debates and education	Data; slow to change; 'fake' competition	Facilitate due diligence and supply chain traceability; identify and address most urgent problems
GMOs	Contribution to pesticides reduction	Herbicide and pest resistance	Herbicide and pest resistance gene editing (?)
Climate change/ soil carbon	—	No long term thinking or action; no sense of urgency; no systemic measurement	Needs to be core in all strategies and interventions
Reduced pesticide use	Lower environmental impacts	Growing resistance makes further reductions harder	Continue to seek improvements in sustainable agriculture
Water	Field level progress in management (use of water management tools)	Attention to water sources and preservation of pristine water	Monitor water sources and their sustainability; monitor and mitigate water impacts
Big data and precision agriculture	More targeted farming and input use	Privacy; ownership of data; failure to vision how technology can help us escape large scale/sterile farming landscapes	Put data generators in control of data, not companies; avoid privatisation of data (e.g. blockchain); include wider views in defining landscape and sustainability
The age of the Anthropocene	—	No sense of urgency	The planetary boundaries defined in the theory can also be used to set boundaries for cotton farming
Due diligence and corporate laws	Getting them	Balance still favours corporations	More support for workers, farmers and suppliers to use laws to challenge businesses; more legal support for due diligence
Populism and pandemics	—	Can sustainability survive?	Sustainable farming is part of public health strategies. Global cooperation

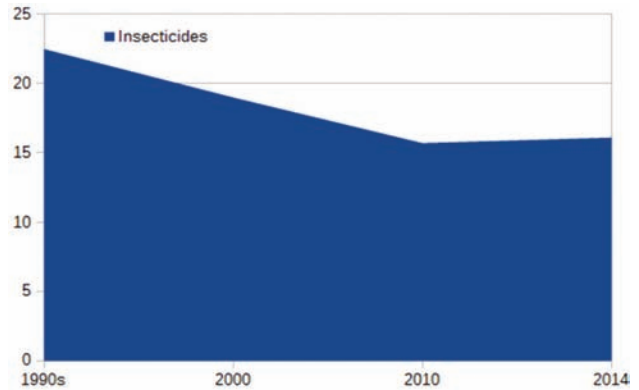
The following table updates a table of claims and counter-claims we produced in 2012.

Claim	Counter-claim	2020 Update
Biotech is bad for small farmers (expensive, risky, unsuitable)	There is emerging evidence that at least some small farmers do benefit. For those brands who are members of an initiative like BCI, then supporting small farmers is a part of the package, which involves supporting raised yields and profitability. For those supporting Cotton made in Africa, Fairtrade and organic, then these are GM free systems and so brands are supporting alternatives aimed at small farmers (as a rule).	We now know GM is bad in marginal rain-fed areas of India and failed in Burkina Faso. No studies of impacts in sustainability schemes exist so far as we know.
Biotech makes farmers dependent on a small number of multi-national companies; Technology dependence of farmers on biotech companies/seed suppliers	Most biotech seeds are indeed protected by patent, and farmers cannot save seeds or there may be restrictions on research in the public sector or by other private companies. However, most cotton seeds are hybrids, and so seed saving in cotton is not as common as in other crops such as food. It is also true that biotech, similar to the agro-chemical industry, is highly concentrated. However, brands supporting sustainability initiatives are working to redress the balance by supporting farmers and especially small farmers.	This problem remains and has grown with corporate concentration of seed and chemical companies. The big six are now three. The direction of travel is largely determined by private interests rather than public funding or direction.
Any gains from biotech are short lived	So far there is little evidence of this. It is true that technology development has to continue and the day may come when current biotech applications are no longer effective or as effective, as has happened with many pesticides, but should that rule them out for now? Ecological systems will always adapt, as will the living organisms with them. Highly technological interventions may accelerate the process, but these are reduced in system promoting integrated approaches, as supported in various sustainability initiatives.	Gains are certainly diminishing and herbicide resistance is a growing problem. Only Australia has seemed to manage the problem well.
Biotech increases the use of pesticides and herbicides over time	There have been reports of rising use after initial falls, but not to the levels seen before the use of biotech. Overall, pesticide use in cotton has been declining over the last 20 years.	Herbicide use has risen quite a lot; Glyphosate reclassified and also increase in older herbicides like Dicamba, banned by courts and then repleved in the USA.
Contamination from GM crops is a threat to biodiversity and seed security	Cross-contamination from biotech cotton has occurred and this is a risk to systems that ban biotech. There have been suggestions that biotech may affect biodiversity but as the recent <i>Nature</i> study shows, biotech may also have positive effects on biodiversity. This does reduce the diversity of cottons seeds. However, most cotton planted is from hybrid varieties not native, farmer saved seed.	No change
Developing pest resistance to Bt from Bt cotton is a threat to organic farmers using Bt sprays	So far, resistance remains a theoretical or small risk restricted to areas with much Bt cotton and not so far affecting organic farmers. This risk seems to have been overstated to date.	No change
Contamination of organic seeds or Cotton made in Africa; threats to biodiversity and seed security	Brands need to be aware of this risk, as contamination is known to have already occurred in organic cotton in the past. It is vital to secure supplies and to develop strategies and interventions with partners to secure biotech-free seed supply, which will also benefit seed security and supply in future.	Solutions seem to rely on donor funding. The organic cotton industry does not seem to be investing in protecting itself. Seed research outside GM is underfunded.
Lack of investment in alternatives such as non-pesticide management which yields well and is less costly	Brands supporting sustainability initiatives are investing in alternative systems.	Big investments have gone into standards and schemes, but perhaps less into techniques and their dissemination. ICAC is working on digital training however, as is the BCI.
Problems with secondary pests	There have been many reports of this, however, determining the cause is more difficult. Recent reports of mealy bug outbreaks in areas with biotech cotton such as Pakistan and parts of India do exist, but there are similar reports from Ethiopia, a country without biotech cotton.	The evidence for this has grown substantially.

Reduced pesticides use

At the time of our first issue, many people continued to repeat the claim that cotton used 11 per cent of the world's pesticides and 22.5 per cent of insecticides, despite these being older figures. Indeed, many rounded up 22.5 per cent to 25 per cent, and conflated pesticides and insecticides. Over the past 14 years, however, pesticide use has dropped. Many claim that GM is responsible for much pesticide use reduction, while others cite the introduction of practices such as integrated pest management (IPM).

By 2014, insecticides use in cotton was at 16 per cent, and one per cent for all agriculture, while pesticide use in cotton was 5.7 per cent. Insecticides use has risen from a low of 14.1 per cent, while herbicides use is reportedly rising in some places due to the use of herbicide tolerant



cottons and the development of resistance to herbicides in some weeds. The change is most dramatic in the USA, where insecticide use has fallen 78 per cent (compared to 2015).

Brooke Summers for Cotton Australia points to a "97 per cent reduction in pesticides since 1992" in Australia. ●



Living through the Anthropocene

We have written about the Age of the Anthropocene, the age defined as one where the geological record is imprinted from human rather than natural activity. The question is, how do we live through this?

"Humankind has become a geological factor⁶," says Reinhold Leinfelder of Humboldt University. How do we go from a human created earth to one where humans live in more harmony with natural systems and within the means of the Bank of Earth? Leinfelder warns against complacency and relying on simple ideas like measuring sustainability against the UN's Sustainable Development Goals. While a step in the right direction, he says, they do not show how dependent we are 'upon a functioning Earth system'.

Instead, he argues: "The main challenge of the Anthropocene concept is actually the insight into a completely new ethical relationship with the Earth: everything I and others do has an effect on the Earth system, often in a completely unexpected and unforeseeable way. Every individual and every community is therefore responsible. Politics or even the economy cannot be discharged from their responsibility, but alone they also cannot guarantee our Earth system integration. The use of the Earth by everyone also obliges everyone to a compatible, sustainable, and possibly even in a resource-augmenting behaviour."

One area we have covered a lot but which remains full of empty promises is traceability. Gone is Historic Futures, the pioneer in textiles and raw materials. Never taken up in textiles is Check Organic. Marker based systems are promising but are not making a difference, while we endlessly hear of 'mass balance' and a lack of visibility beyond Tier 1. Yet "Traceability is the key". Though it can be tricky, the most valuable investment a brand can make when it comes to supply chain sustainability is tracing its cotton back to the source farm – and identifying every broker, mill, ginner, spinner, and manufacturer involved along the way," according to a manifesto by Cotton Diaries⁷ (to which I am happy to have put my name). Knowledge is key to identifying real problems and addressing them in order of urgency. ●

6. <https://www.slideshare.net/ReinholdLeinfelder/welcome-to-the-anthropocene-by-reinhold-leinfelder>

7. <https://www.cottondiaries.com/manifesto>

Due diligence and corporate laws

Nothing highlighted the failure of standards to cover all issues and practise due diligence than the 2014 story *Ecotextile News* broke on land grabs in Ethiopia. Here, an organic cotton farm was destroying pristine savannah woodland, with rumoured purchasers including some well-known brands. This prompted changes in some standards at the same time as the organic cotton sector widened its scope with Organic 3.0 (a voluntary standard). But change has been slow, and new laws and due diligence guidelines from the OECD have not been widely adopted. Brands continue to avoid tracing their supply chains, as evidenced by recent replies to the Business, Energy and Industrial Strategy Committee hearing on forced labour in UK value chains at Westminster on Thursday 5 November 2020⁴, where brands claimed (with one honourable exception) to have no visibility into their supply chains beyond so-called Tiers 1 and 2. Continued hiding behind supposedly untraceable supply chains blocks any real attempts to improve sustainability. The scandals in Xinjiang (a hotbed of organic cotton production, from which BCI has only recently withdrawn) following years of reports of forced labour in Uzbekistan (and in Leicester) show how much this must change. As Subindu Garkhel from Fairtrade says: "The farmers still remain invisible in the supply chain. Most of the new policy guidance and legislation, whether on HRDD or modern

"It makes me wonder if the sector will always have to wait for a Rana Plaza before taking strong collective action"



Cotton and Genetic engineering

Genetically Modified Cotton was around in 2007, and had been since the 1990s. It was not featured in our first issue but has many times since. Many claims were made for GM cotton's positive impacts on pesticide use reduction and farmer livelihoods, but the story we have reported since has been more mixed. Initial claims have led to questions over the longevity of applications, and their sustainability, notably because of herbicide resistance. In India in particular there have been many problems, Burkina Faso stopped growing GM, while only Australia seems to have used the technology without problems. In 2007, GM cotton was valued at US\$ 0.9 billion (6.2 million hectares and 3.8 million farmers in India alone according to ISAAA²). By 2017 there were 24 million hectares of GM cotton according to the ISAAA. GM cotton now accounts for around 72 per cent of the global cotton area and is grown in 15 countries³. It is grown in sustainability schemes such as BCI, e3 and Cotton Leads (US). But increasing herbicide resistance points to limitations with this technology. Earlier this year we reported on a study in *Nature* by Dr Kranthi and GD Stone (published in *Nature Plants*, March 13 2020³) which concluded that benefits from Bt cotton India were 'modest' and 'ephemeral', with Indian cotton yields not having improved in 13 years. Persistent problems in India with pests and with illegal hybrids are not helping, and thoughts may increasingly turn to gene editing, a technology not yet applied to cotton but offering some promise of more targeted interventions. ●

2. ISAAA Brief 37-2007: Executive Summary Global Status of Commercialized Biotech/GM Crops: 2007

3. <https://www.nature.com/articles/s41477-020-0615-5>

i. ISAAA. 2017. Global Status of Commercialized Biotech/GM Crops in 2017: Biotech Crop Adoption Surges as Economic Benefits Accumulate in 22 Years. ISAAA Brief No. 53. ISAAA: Ithaca, New York.

slavery, seems to be just caught in the Tier 1 and hardly reaches the lower tiers. The cotton farmer is just as much a part of the supply chain of a business as the factory worker and it's the responsibility of the business to respect and protect human rights in their supply chain. It makes me wonder if the sector will always have to wait for a Rana Plaza before taking strong collective action."

The same applies to workers. But will forced labour in China be a Rana Plaza moment?

Labour costs have been rising in China and the drive to retain business and keep costs low means pressures on

4. <https://parliamentlive.tv/event/index/ded12629-dad1-4e79-b24b-5ff9aba6b164>

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labour and environmental standards could drive yet more abuses, state and corporate, especially given the potential financial squeeze from the COVID-19 pandemic and the desperate urge to rebuild economic growth at any cost.

Perhaps if populism is finally on the wane and international bodies regain some teeth and credibility the ship can be turned around. France's corporate duty of vigilance law might be scaled up to the level of the European Union

and a Biden-Harris US presidency might support such initiatives globally.

This law requires larger companies to prevent human rights and environmental problems, in a similar fashion to the due diligence guidelines, but their legal teeth mean victims have legal recourse, although they also bear the burden of proof, which is a problem given the deep pockets and legal talent available to large companies. ●

Climate change

With cotton and farming largely excluded from international carbon trading schemes, attention to soil carbon remains low, although it is being talked about more now with attention-grabbing targets such as reducing climate impacts from fibre and material production by 35-45 per cent from Textile Exchange. This however risks being no more helpful than other initiatives, as it ignores the variation in soils, farming practices and ecosystems worldwide and that different soils may have different soil organic matter (SOM) capacity in the first place (e.g., tropical soils have lower SOM than temperate on average). As Alan Williams general manager,

"With improvements in sensing technology and reductions in cost, the collection of good quality robust data should become more feasible, for more cotton farmers"

R & D investment at Cotton Research and Development Corporation says: "Re: metrics and farming: it's a long-term game. Agriculture is part of an inherently variable natural system, which means that the numbers will change from season to season, often depending on seasonal conditions well outside the control of the farmer. This variability occurs both naturally and with farming system: geography, soil type, seasonal conditions, pest outbreaks, weather conditions, farm practices, crops chosen to be planted etc."

Williams also cautions against trying to measure changes

A partially lost decade

Standards have moved the conversation along since 2007; but mainstream cotton has also moved along quite a lot. The question for the next decade is how to maintain the progress made while moving much more rapidly on the urgent problems such as climate change. We cannot afford the same time it took standards to go from the situation in the 1980s to now. We don't have 30 years, but 10. We have moved too slowly.

In this column we have come to back a due diligence approach and an understanding of the Anthropocene as key to change.

We must also think more holistically. Anita Chester and Laudes Foundation are backing a landscape approach which has much in common with notions of 'terroir': She says: "Recognition of these limitations is creating an interest in finding new solutions through integrated landscape approaches which are place based and not commodity based. While these are very much a buzz, in practice this means that businesses need to be collaborating with other stakeholders and invest in people and land, communities and biodiversity to transition whole areas to sustainably-managed landscapes that cover multiple commodity supply chains and full-farm activities⁸."

We must also use technology. Allan Williams emphasises the need to understand cotton's contribution to climate change and backs precision technology.

"I think the arrival of cheaper and cheaper sensors that can collect field level information, linked to good decision support systems will be one of the most important contributors to sustainability in the coming decade," he says.

This is also stressed by Brooke Summers of Cotton Australia, who also backs action: "We need to do more to reduce carbon emissions, be more efficient with the use of nitrogen fertiliser, further improve the safety of farm workplaces and enhance on-farm biodiversity. These are the areas of focus for the coming decade." ●

8. <https://www.linkedin.com/pulse/world-cotton-day-reminder-we-can-farm-future-hope-anita-chester/>

"We cannot afford the same time it took standards to go from the situation in the 1980s to now. We don't have 30 years, but 10. We have moved too slowly"

with headline-grabbing Life Cycle Assessments (LCAs). They fail to capture the complexity of farming areas, let alone the day to day, season to season and year on year variability they encompass. He suggests instead "The focus should be investing the money to obtain data to assess the impacts of specific practices (informed by local / relevant factors and conditions), and to support farmers to implement best practices based on the data for those specific practices." He adds: "With improvements in sensing technology and reductions in cost, the collection of good quality robust data should become more feasible, for more cotton farmers."

Brooke Summers also mentions the importance of collecting data "because you can only manage what you can measure"

as well as the need to "make the data integrate across commodities that are grown on the same farm, because no farmer in Australia only grows cotton".

"Progressive farmers want to move away from monocultures and grow cotton alongside fresh vegetables or cereals and grains"

This is backed up by Anita Chester of the Laudes Foundation, who says: "The first source of dissonance is that the current standard systems are specific to a single commodity whereas a farm is often, not. Progressive farmers want to move away from monocultures and grow cotton alongside fresh vegetables or cereals and grains; they may even choose to grow soya in rotation. By working on a single commodity standard or supply chain we often miss the complete picture."

There is no concrete plan as to how cotton farming can help reduce the risk of climate change, keeping temperatures below 2°C and preferably 1.5°C. We know this is of concern to the International Cotton Advisory Committee (ICAC) and our best hope may well lie in action at this level and commitments by cotton producing countries - although this may need financing by cotton consuming countries.

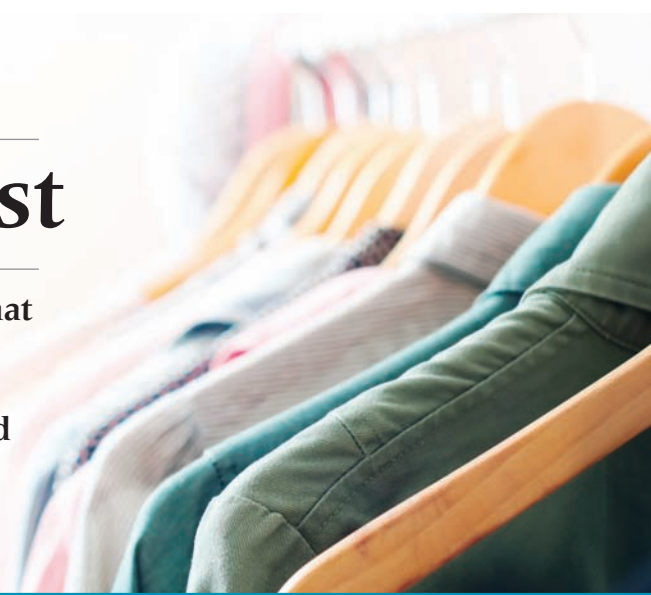
Subindu Garkhel of the Fairtrade Foundation also stresses the importance of climate change but cautions farming may be the poor relation again: "There is still a risk that there might be fewer efforts in adaption and resilience for the farmers, compared to the efforts that will go in the rest of the supply chain." ●

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Hold fast

It is widely agreed that the fashion industry produces too much, too quickly. How and when to change this continues to puzzle the sector at large.



David Styles reports.

The overproduction of cheap garments, many of which will never be worn or even purchased, has made fashion a “monstrous disposable industry”, in the words of designer Phoebe English. This is only set to worsen if you believe the most recent *Pulse of the Fashion Industry* report, which claims global apparel consumption will rise 63 per cent to 102 million tonnes by 2030.

One widely-touted prediction recently proven wrong was that the outbreak of COVID-19 would have the inadvertent positive of slowing things down in the sector and offering a much-needed reset. Instead, the cheapest online fast fashion has surged while firms in the squeezed middle fell by the wayside.

The sector’s battle lines are clearly drawn. This is never clearer than on the last Friday in November. As high volume retailers attempt to shift as much reduced stock as possible on ‘Black Friday’, a hardy band of abstainers continue to fight back.

Companies like Patagonia have long since shunned the annual fire sale, with the European Outdoor Conservation Association (EOCA) this year running a divergent event which will see excess stock, damaged product or development samples sold to raise funds for environmental charities.

If sufficient numbers of consumers fail to get on board with the boycott, however, the damage done by such excessive practices will continue to deepen.

Viral sales

Boohoo, one of the chief proponents of fast fashion, reported a 45 per cent increase in sales amid the pandemic’s first wave – even after enduring the scandal regarding factories remaining open during lockdown and the alleged widespread payment of illegally low wages.

This success sits in stark contrast to the coronavirus experience of high street mainstays like M&S, which posted pre-tax losses of £87.6 million in the six months to September – the first time in its 94 years as a publicly listed company that it has found itself in the red.

David Tyler, professor of Fashion Technologies at Manchester Metropolitan University, believes this disparity is down to years of reinforcement that only one thing matters. “Price has captured our retailers,” he asserts. “When UK companies are developing brands they aren’t thinking about quality, technology or ‘Made in Britain’ in their core values but rather the sporty image of athleisure or aspirational celebrity-endorsed products – all of which are sold at a bargain price.”

Consumers who now only understand fashion through the prism of aesthetic – rather than valuing a garment’s ‘feel’ or the characteristics of certain fibre varieties – are the main contributor, Tyler believes, to a dangerous disconnect between the general public and the realities of how apparel is made.

Kirsi Niinimäki, associate professor in Design at Aalto University, agrees that the chasm between consumers and the industry must be closed if environmental progress is to be made. “Consumers blame companies. Companies blame consumers. This doesn’t take the industry forward at all. We produce too fast, buy too fast and that means that garments go out of fashion and become waste very fast.”

Interestingly, an Aalto University survey conducted last year found that most designers create garments with the maximum possible life cycle in mind – aiming to create a classic look – but find themselves asked to make changes by business-

“**Consumers blame companies. Companies blame consumers. This doesn’t take the industry forward at all**”

focused colleagues who insist materials used are cheaper and that styles must adhere to the microtrends.

“At some point in every fashion designer’s education there comes a point when they fully understand the system they are entering and they have a crisis,” Niinimäki tells *Ecotextile News*, “then they have the decision of whether they make a stand.”

If designers were listened to and there was a return to a slower changeover of collections, the professor believes change would be seen quite quickly.

“It’s the industry’s responsibility to do business more creatively and begin to include other services – repairing, upgrading, redesigning – within the system.”

While it could contribute to an overall shift, the reselling of used garments – ambitiously tipped to overtake sales of new clothes by 2030 in ThredUp’s 2020 Resale Report – may not be the panacea some in the industry had hoped.

Recent data shows second-hand clothing exports from the EU have slumped since the pandemic took hold. This will concern many European firms as this practice has provided an extra revenue stream. Approximately half the annual 16 million tonnes of unused apparel and textiles from the EU had been sold on to markets in developing nations prior to 2020.

Slowing the cycle

Large-scale, properly funded recycling – not resale – is the fulcrum around which overconsumption can begin

The Resyntex project, launched in the Slovenian city of Maribor, aims to explore the prospects of textile recycling forming part of a circular economy by producing materials, such as glucose, glycol or acids, from unwearable textile waste.

“It’s the industry’s responsibility to do business more creatively and begin to include other services – repairing, upgrading, redesigning – within the system

to be decelerated, according to David Tyler, a veteran of the EU-funded **Resyntex project**.

While insisting he is “no foe of novel materials” being used in capsule collections, he believes the industry must “forget the low-hanging fruit and aim for the 90 per cent” – working to recycle as many post-consumer materials as possible.

Due to the high initial outlay and lack of guaranteed return on investment, it is almost certainly governments alone that have the fiscal power to facilitate such projects. Given the indifferent responses to the fashion industry’s environmental discretions from many national administrations, this could prove a major stumbling block.

Niinimäki agrees that lawmakers hold the keys to force the sector into change. “It just requires a push forward from legislation to make action mandatory not voluntary – the self-regulation approach has not worked.” She has nevertheless seen encouragement from the EU, with discussions “now framing textiles and fashion in the same way it did plastics in previous years”.

Both Niinimäki and Tyler agree that a garment’s environmental impact must now be factored into its retail price as a way of funding green initiatives, but the latter thinks lessons must be learned from prior missed opportunities. “In France the vast majority of EPR (Extended Producer Responsibility) money goes into textile sorting and

providing jobs but does nothing for the circular economy. If you spend the extra money sorting textiles without any way of recycling them then we will get nowhere.”

With the UK set to offer an unwanted garment collection scheme from homes as of 2025, he fears that once again items will be collected and sorted only to “end up like paper and cardboard that is burned rather than recycled”. Implementing a levy around ten times higher than the 1p per item proposed in the Environmental Audit Committee’s 2018 recommendations could, he notes, finance the requisite facilities.

The notion that moving to a more sustainable system could be heavily reliant on politicians will understandably leave many in the sector nervous. Even if sophisticated recycling, a booming resale market and more sustainable fibre sourcing became the norm, however, a switch in psychology – for brands and consumers – remains the number one necessity for change.

The analogy that fashion retailers taking steps to decrease sales would be like ‘turkeys voting for Christmas’ is very apt when viewed through a purely economic lens. If, however, the turkeys knew that taking a hit now would mean every generation after them would have a better life – with fewer each year destined for the oven – perhaps they would think differently. Failing that, it’s highly likely that we’re all stuffed. ■

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Top ranking

On the face of it, fashion earned a good report in the 2020 Green Supply Chain CITI Evaluation rankings. But does that reflect reality?

Simon Glover reports.

The fashion industry was represented by nine of the top ten brands in the 2020 Green Supply Chain CITI Evaluation rankings, which rate companies on their supply chain oversight.

European retailer C&A topped the list of 540 brands rated by the Institute of Public and Environmental Affairs (IPE). Eight more fashion companies – Levi’s, Inditex, Adidas, Primark, H&M Group, Target, Nike and New Balance – made the top ten, alongside technology conglomerate Cisco.

But does this apparently commendable performance tell the whole story? Linda Greer, a senior global fellow with IPE, said: “As well as a good performance by those companies – and I don’t mean to take that away from them – it also reflects our focus on the industry. And that focus was because they have a huge pollution impact.”

The results also reveal that several apparel brands



scored zero in the rankings including Fila, Kappa, DKNY, Umbro, Pierre Cardin, River Island and Hush Puppies. Other low scorers included Ralph Lauren, J C Penney and Victoria’s Secret.

“They’re a definite point of aggravation and even more so when we hear them talk about their concerns about sustainability. But for us the big picture is pollution reduction in China so we are more heavily focused on accelerating those companies who want to accelerate,” said Greer.

IPE had been concerned that the pandemic could have impacted on the number of companies engaging with it on sustainability this year.

But Greer says: “We were really surprised that the total number of factories being driven in to the programme this year did not go down, in fact it went up a little bit.”

With on-the-ground auditing restricted, progress was achieved mostly through increased adoption of IPE’s Blue EcoChain automated supply chain oversight tool, now used by 54 brands – a 46 per cent increase on 2019.

“With Blue Eco-chain, a factory knows that if its real time monitoring data shows a problem, it’s there for the

▲ CITI top 50.

The Global Brand Map maps 540 brands around the world and gives key details of their supply chain oversight.

Powered by artificial intelligence and big data technology, Insblue illuminates environmental, health and safety risks in supply chains.

world to see,” explained Greer. “It might be a temporary problem that can be fixed in two hours but where it’s chronic, it’s a tipping point because the buyer gets notified right away.”

The Green Supply Chain and Climate Action Forum, where IPE releases the CITI rankings, was held online this year – a practice which proved so successful that Greer thinks it should continue, alongside the physical event, even once the pandemic is behind us.

As well as revealing the latest CITI rankings, IPE used this year’s forum to announce the launch of two new tools – the **Global Brand Map** and **Insblue**.

With these high tech tools pointing the way forward, we asked Greer whether her glass was half full or half empty when it comes to the challenge of driving forward brands’ performance on supply chain oversight.

“Here’s what I feel hopeful about. That transparency has come to the point where they aren’t not do it. Public concern about climate change, for example, is higher than ever. So I think companies dare not walk away and that’s why I feel optimistic,” she said. ■

“Companies dare not walk away and that’s why I feel optimistic

Linda Greer, IPE



▲ Garment workers in a factory.

The drive for diligence

Recent controversy over pay and conditions in Leicester garment factories which supply Boohoo has prompted growing calls for mandatory due diligence on supply chains, but what would it mean?

Simon Glover reports.

New legislation which would make brands and retailers responsible for carrying out due diligence on social and environmental issues throughout their global supply chains is currently being considered by both the European Union and the German government.

These moves towards mandatory human rights due diligence (MHRDD) have been prompted by longstanding concerns over the effects of the fashion industry on both those who make its products and the wider environment.

They have been accelerated by the impact of the COVID-19 pandemic which has exacerbated fears that the relationship between manufacturers, many of them in developing nations, and western brands and retailers is broken.

Ilan Vuddamalay, senior labour rights programme manager at Laudes Foundation, has no doubts that legislation is necessary, arguing that voluntary measures have failed to either uphold human rights or protect the environment.

"COVID showed there were a lot of cracks in the system and I think the

European Commission is trying to take a more values based approach, which is quite a bold move, on social and environmental issues," she said.

"Both the European Commission and the German government have carried out reports to show that voluntary moves haven't been enough to ensure that companies take the right steps to prevent and mitigate risks to human rights and to the environment.

"Fires occur, people get underpaid, there's illegal sub-contracting... these issues continue, they don't stop. If voluntary measures were enough then there should have been a reduction. But we still see them and when they occur companies aren't necessarily held accountable."

In a recent blog on the issue, she quoted Euro MP Lara Wolters who said: "A system of voluntary standards is good only for the good guys, we now need a system that is bad for the bad guys."

Vuddamalay continued: "This is particularly true for the apparel sector, which has seen a multitude of voluntary and well-intentioned initiatives, but few transformative changes."

This raised eyebrows as the Laudes Foundation is the philanthropic arm of retailer C&A, which only recently agreed to pay garment workers in its global supply chain for cancelled orders that it'd controversially back-tracked on amidst the pandemic.

Christie Mdiema, of the Clean Clothes Campaign, commented: "It is really great that Laudes

“
A system of voluntary standards is good only for the good guys, we now need a system that is bad for the bad guys

*Euro MP
Lara Wolters*

Foundation is expressing its support for mandatory human rights due diligence, but if they are serious about it, why don't they get C&A to publicly speak out in favour of the concept?"

When asked whether she considered C&A to be a 'good guy' or a 'bad guy', Vuddamalay responded: "I don't speak for the business or the brand, but I don't think this is so much about individual companies but really around the whole industry and the system that needs to change."

In her blog, Vuddamalay argued: "We see that the lack of clear, consistent and binding rules permit some companies within the apparel industry to act as they see fit, so, naturally they act in line with what incentivises them."

"For some, this means doing as much as possible to protect workers, their communities and nature for longer-term business, social and environmental continuity. Whereas for others, it can mean treating people and the environment as resources to exploit in order to minimise costs and maximise financial returns."

"The result manifests itself in low paid and dangerous working conditions or continued pollution and excessive carbon emissions. The concentration of power in value chains amongst the end buyers ensures that these problems and inequities persist. Then, when a major shock like COVID-19 occurs, these practices result in swift and dire consequences."

She described the commitment earlier this

year of European Commissioner for Justice, Didier Reynders, to introducing a proposal for MHRDD legislation as a "small but bright light".

"This legislation would mean companies in the EU and selling to the EU would have to put in place appropriate measures to identify, prevent, mitigate and account for addressing risks created by their operations that might lead to adverse human rights and environmental impacts," she said.

"Ultimately, the legislation should help prevent negative impacts to workers, communities and the environment occurring in the first place. And if it doesn't, then they should be able to access remedy and companies be held accountable."

Critics of mandatory due-diligence argue that it's not realistic, particularly in the fashion industry, for smaller companies to be legally responsible for complex supply chains which they may not have the resources to unravel.

But Vuddamalay counters: "I think it's important to get it clear that mandatory due-diligence wouldn't make all companies legally liable for every single impact along their supply chain."

"It's asking them to make reasonable efforts to identify and understand what the risks are that their company might cause or might be implicated in their supply chains. And to take credible action to address them."

Another argument is that countries, such as Germany, or regions, such as the

European Union, might be putting their own economies at a disadvantage by imposing MHRDD restrictions that international rivals would not face.

But Vuddamalay disagrees: "At the moment companies that are responsible are the ones that are at a disadvantage. The ones that have taken that responsibility doing diligence, going above what is required, can be undercut by more unscrupulous companies."

Whenever people discuss MHRDD, the focus is on pay and conditions in 'sweatshop' factories in developing nations – but in recent months one of the biggest controversies has been to do with factories in Leicester which supply fast fashion retailer Boohoo.

We asked Vuddamalay whether she thought legislation would have helped here – or whether less scrupulous players would always find a way around legal requirements such as the minimum wage.

She replied: "There needs to be a change of this narrative that companies don't know what's happening in their supply chain, they don't know where their suppliers are or who they are or who they are hiring, because it's not an excuse anymore."

"I don't know enough about the Boohoo case, I cannot comment on that, but in general with MHRDD the burden would be on the company to find out who their suppliers are and how they are treating their workers and what are they doing to address those problems." ■

“**The burden would be on the company to find out who their suppliers are and how they are treating their workers**

Ilan Vuddamalay

Barking up the wrong tree?

Viscose producer April Group finds itself at loggerheads with an NGO coalition over deforestation links.

Chris Remington reports

April Group, the Indonesian sister company of viscose fibre supplier Sateri, has refuted claims that it's at risk of acquiring vast quantities of wood pulp from deforested peatlands in Borneo, and says claims that satellite images which show deforestation on an area of land the size of '10,000 football pitches' are "simply not supported by facts".

A coalition of ten NGOs – including Greenpeace, the Rainforest Action Network and local pressure group Auriga – recently published a report alleging that since June 2015, one of April's top raw material suppliers, PT Adindo Hutani Lestari (PT AHL), had sourced wood

pulp from "knowingly cleared [High Conservation Value] HCV or [High Carbon Stock] HCS forests or forested peatlands" in Borneo, which would be in breach of April's Sustainable Forest Management Policy (SFMP) 2.0 commitments.

April has since offered a rebuttal as it looks to **clear its name of the accusations**, whilst vigorously denying any assertion that it has ownership or any links with the "open market supplier" PT AHL.

Yet these rebuttals from April have themselves been challenged by joint report author Auriga, which adds further complexity and some confusion around the transparency of sourcing raw materials in what is after all, one of the world's most delicate eco-systems.

Communications director of Auriga Nusantara, Syahrul Fitra, told *Ecotextile News*: "The report did not say that April is not in compliance with Indonesia's laws and regulations, as April's statement claims. We said we do not allege that they are out

- April says that of the 8,387 hectares of plantations established by PT AHL, none were HCV areas.
- Adds that land preparation activities for this space was completed before May 2015, and verified by environmental consultant PT Hatfield Indonesia.
- Hatfield's analysis confirmed these areas were non-HCV areas and harvested prior to the May 2015 cut-off date per April's SFMP 2.0.
- Of the 8,387 hectares, 6,058 hectares are classified as peat and none of these are on a protected Peat Dome Peak Area.

of compliance. Our report states that its authors believe there are enough indications to warrant careful scrutiny by Indonesia's authorities, especially in regard to beneficial ownership disclosure, timber royalty payments, and restrictions on peatlands development."

The NGO says there are other outstanding questions still to be answered around transparency, but the viscose producer has hit back, saying: "It is misleading to question April's commitment to transparency, both in the context of the ownership of PT AHL and otherwise.

"We have shared correspondence from PT AHL with Auriga in which it clarifies its ownership and categorically states that no shareholding in PT AHL has ever been held by shareholders of April or RGE (Royal Golden Eagle, the parent company of April)."

Environmental NGO Canopy remains unconvinced, with executive director Nicole Rycroft saying: "This is not the first time that RGE companies or their suppliers have been credibly accused of deforestation and forest degradation – and we fear it is becoming a pattern with implications for viscose producers who have links to April."

She concluded: "Canopy sincerely hopes the company will constructively work with respected local NGOs and civil societies on the substantive changes that are needed to reduce current risks and to improve their sustainability standing. We're willing to work with them on finding the pathways to solutions." ■



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Untapped potential

Salvageable 'waste' holds potential to unlock circular economy

By Chris Remington

The Renewal Workshop, a company with its roots deeply embedded in apparel repairs, has published a new report which not only spotlights the growing problem of textile waste but also makes a compelling case for its glaring potential in an industry that's quickly warming to the idea of a circular economy.

Leading Circular – Pathways for Evolving Apparel and Textile Businesses from Linear to Circular follows a narrative that's becoming more and more familiar as the tide turns in favour of 'sustainable' fashion.

What's startling in this report, however, is that the sheer size of the problem and its very solution are made so painstakingly clear.

Having conducted more than 50 **brand assessments** – from high-end clothing labels to technical product specialists – over a four-year period, the team at the Renewal Workshop (TRW) concluded that 82 per cent of what these businesses deem waste is in fact

As part of this assessment, circular mapping is used to identify the size of the waste stream that brands are already managing, before the Renewal Workshop physically assesses this product and categorises it. "Here we are looking at the quality of this waste as well as its material content. This allows us to understand the global feedstock of products that could go into a resale market," says Nicole Bassett, TRW co-founder.

The Consumers Behind Fashion's Growing Second-hand Market report compiles the answers of 7,000 respondents from across the UK, USA, France, Germany, Italy and Spain to paint a picture which shows how the coronavirus pandemic has influenced shoppers to choose quality over quantity.

salvageable product that could serve a new purpose.

A closer look finds that almost half (46 per cent) of this 'waste' could be deemed of resale standard with just minor repairs, another 36 per cent of this stock could also be resold if given more substantial surgery, whilst the remaining 18 per cent could be of value if recycled or downcycled.

At present, it's the fast-and-loose approach to product disposal that's proving both damaging and, sadly, a missed opportunity. Whilst we can be buoyed by the statistics that 31 per cent of this garment waste is donated, and that eight per cent is reused or recycled, the fact is that 24 per cent of this product is incinerated or landfilled, whilst an additional eight per cent is destroyed in other ways.

Ultimately then, to improve these rates, the Renewal Workshop wants to see companies explore alternative business models.

"To us, success is when we have a mainstreamed circular economy for our industry," TRW co-founder, Nicole Bassett, told *Ecotextile News*. "We know that more information helps make better decisions and

we need to see an acceleration of circular business models if our planet is going to survive. In order to get there, people need examples of success, inspiration and data to make informed decisions."

Second-hand fashion's spike

Perhaps the most obvious avenue to brands and retailers will be product resale. After all, platforms like Depop are a case-in-point of just how lucrative and alluring the model of selling pre-owned fashion has become. Recent research from consignment store the Vestiaire Collective estimated that the resale market is worth between US\$30 and US\$40 billion at present.

What's particularly striking amongst the findings of **this report** is the extent to which the COVID-19 pandemic has served as a period of reflection for shoppers.

When asked whether they'd change their shopping habits when things return to 'normal', 82 per cent of respondents indicated that they'd consider buying items that are of higher quality and thus likely to last longer.

The North Face is just one brand to have reaped the rewards of offering a pre-owned clothing collection, with senior manager of the brand's sustainability team Julian Lings, telling us that it's thus far saved more than 50,000 kilograms of waste from going to landfill, whilst registering "very strong year over year growth".

"I think the question is how can brands add value to

re-commerce consumers through the product they re-sell,” Lings says.

“Every brand/business will be different in how consumers interact and subsequently value their products. Re-commerce allows for multiple avenues to add value, for example: refurbishing a garment to ‘like-new’ condition will appeal to first-time customers. Creatively repairing garments to celebrate and repair in harmony with damage can create product that appeals to consumers more emotionally connected to re-commerce... and upcycling or building something entirely new can reach new niche audiences that may have not considered re-commerce as a viable marketplace for them,” he explains. The financial viability of rental fashion is another potential pathway for brands and retailers.

“Product as a service is an opportunity for all brands to extend their inventory investments in new ways. As making new things becomes more expensive and fewer people can afford to own everything they need and want, rental programs become more appealing for both brands and consumers,” says the Renewal Workshop.

Take-back schemes are now proving popular within the industry too, with the likes of **Levi’s and Tommy Hilfiger** most recently announcing in-house schemes which will reward customers for returning goods.

“For brands to take responsibility for what they make and to capitalise on the full lifetime value of the



▲ The Renewal Workshop employs people both in Oregon and Amsterdam which execute product repairs.

Both companies have recently launched respective take-back and resale services, through which shoppers are incentivised to return their unwanted goods in return for credit, whilst the brands execute repairs before re-listing items.

▼ The Renewal Workshop’s co-founders Jeff Denby and Nicole Bassett.



product, take-back programmes are essential,” the report notes.

“There are a number of ways to work with consumers to take back your products when they are finished with them. Before committing to a single approach and building out a programme, we advise brands to experiment with each of the four primary paths to collect data on customer behaviour.”

These are: in-store collection points, special events and marketing activations, employee programmes and mail-in programmes.

End-to-end stuff

An area that’s perhaps overlooked in all talk of alternative business models is the necessity to address circularity at the product design phase. After all, if a garment is built to last and its manufacture is thought-out to consider its end-of-life, it makes the subsequent disassembly and recycling far easier.

Education is paramount in this regard, and the North Face is again just one firm which didn’t shy away from accepting support when the Renewal Workshop was offering up its services.

The North Face Design Residency was born, which factored in resources on ‘circular materials’, designing for durability and repairability. “Classroom work during the Design Residency centred on evaluating the traditional design process to incorporate circular design principles and taking steps to integrate those updates

into the creative process,” Lings told us. “By thinking holistically about where certain components show up and the circular viability of them there is an opportunity to have a very large impact with a small number of decisions.”

From one end to the other then, efficient textile recycling is perhaps the most important cog to grease if the elusive ambition of a circular economy is to be achieved. At present, question marks remain over whether this is an attainable goal due to the current crop of technologies.

“Today’s recycling technology is over 100 years old. It is predominantly done through a mechanical process and only works for single material products such as cotton, wool, or polyester,” the report says.

With more than half of the fabrics used by the brands assessed found to encompass material blends, it creates an issue with regards to how exactly the potential of these textiles can be unlocked. It really comes down to how such stakeholders invest and back the burgeoning solutions of recent years... the likes of Tyton Biosciences, Re:newcell, Worn Again and Evrnu are mentioned, to name but a few.

“The take, make, use, waste model does not serve any company economically,” insists Bassett. “And if brands want to be more resilient in uncertainty, having a diverse source of revenue is a smart plan. Right now, brands are adapting linear business models into circular.” ■



Material difference

The SAC is about to drop the aggregated Higg MSI single score for materials, in favour of impact ratings for products.

John Mowbray reports

The news that the Sustainable Apparel Coalition (SAC) will ditch the aggregated single score used by the Higg Materials Sustainability Index (MSI) next month (January 2020) has brought mixed responses from industry groups – including repeated calls for the MSI's full suspension.

The SAC says its decision to shelve the single score is part of a planned shift of focus from the environmental impacts of raw materials to product level assessments. It also coincides with the launch of the new Higg Product Module (Higg PM) where MSI users can use **five individual impact area scores** to determine the environmental credentials of

These impact areas are global warming potential, nutrient pollution in water, fossil fuel depletion, water scarcity and chemistry.

their products. The second version, due next spring, will consider product use and end-of-life for the first time.

The move has been given a cautious welcome by some groups, including the cotton sector. "Eliminating the single aggregated score in the Higg MSI is a positive step," noted Michele Wallace, director, product integrity at Cotton Incorporated. "Sustainability measurement tools need to balance ease with accuracy. Although single scores are easy to grasp, they do not address the inherent complexities of impact assessment. With this change to Higg MSI and the release of PM, with the full lifecycle, the Higg product tools will move closer to conformity with ISO standards." Yet there's still concern about how MSI ranks raw materials such as leather, wool, silk and alpaca. The International Council of Tanners said it accepted the retirement of the MSI aggregated single score would increase transparency but it "remains concerned that the underlying data and methods for the five impact areas do not truly represent the impact of some materials". It went further, renewing its calls for the suspension of the MSI, claiming the Higg's data and methodology burdens leather with "disproportionately high scores."

Meanwhile, Juan Pepper, president of the Interna-

tional Alpaca Association told us the retirement of the MSI single score was a "symbolic step," and pointed out that within the MSI high aggregate scoring for Alpaca 320 points, 69 per cent or 222 points comes from eutrophication. "But most alpacas are farmed at an altitude of 4,000 metres (in Peru), so there is no agricultural activity at this height above sea level to justify the use of chemical fertilisers," he explained.

It's a fair point. And the lack of clarity around impact scores is shared by other sectors such as the silk industry, which back in 2018 outlined the results of a credible LCA on silk by Ufficio Italiano Seta. These results featured in a special supplement in this magazine in February 2019, however, we don't know if that LCA has yet been taken into account by the Higg MSI.

Meanwhile, the wool industry's global body, the IWTO, told us that while it: "welcomes the SAC's decision to eliminate the Higg aggregated score", it says that "considerably more improvement is needed to create a level playing field in their (SAC) rating of natural and synthetic fibres".

Synthetic concerns

As we've previously reported, all these organisations remain concerned about their comparatively low environmental MSI rankings versus synthetic fibres – and polyester in particular (see page: 41).

Yet the Higg MSI was never meant to look at one fibre versus another in isolation, says Higg Index

CEO Jason Kibbey. “When you merge lots of different impact areas together you essentially create some degree of over-simplification – and so there’s a lot of criticism about the single score and the way it implies one material is better than another material.”

He maintains the MSI was only ever intended as a ‘point of engagement’ and a ‘starting point’ to look at the sustainability impacts of a given product. “But because there’s this single score and ranking I think some used this as a way to say, ‘oh you’re declaring that one material is better than the other’ and that wasn’t the intention ... we’re looking for ways to move beyond that conversation because that’s not a productive one.”

In any type of ranking, someone is always going to finish bottom of the pile. And it’s therefore no surprise that those with the loudest voices are the ones who feel the most aggrieved. Yet looking at textile fibre production figures from CIRFS (which collates these figures yearly), textile fibre market share by type has been stable since 2013 when the MSI was first unveiled.

Wool and hair fibre types still hover around one per

cent of global textile fibre use while silk is down at 0.1 per cent of the total amount of fibres used every year. These fibres have been losing market share to synthetics for decades – so is the impact of the Higg Index MSI score on the market share of a fibre being overstated? Probably.

Buyers will primarily choose fibres based on attributes, performance and price.

“I think what people are actually using the MSI for is to really look at how materials play into their company-wide impact goals, specifically on things like carbon and water. That’s where the tool is really useful,” says Kibbey.

Surely that has got to be the right approach in a creative industry known for the sheer diversity of its products. The textile industry doesn’t simply churn out identical widgets made from the same raw materials. As we’ve said time and time again, it’s not just about *what* your products are made from, but *how and under what conditions* they are made that determines their overall impact.

“The materials going in are just one part of it and looking at product impacts gets us

“**It’s not just about what your products are made from, but how and under what conditions they are made**”

away from this idea that with material scores on their own, you can make a perfect judgment,” said Kibbey.

Although the aggregated single score will be ditched in favour of these area impact scores, the cradle-to-gate MSI will remain integrated within the Higg PM on the Higg.org platform.

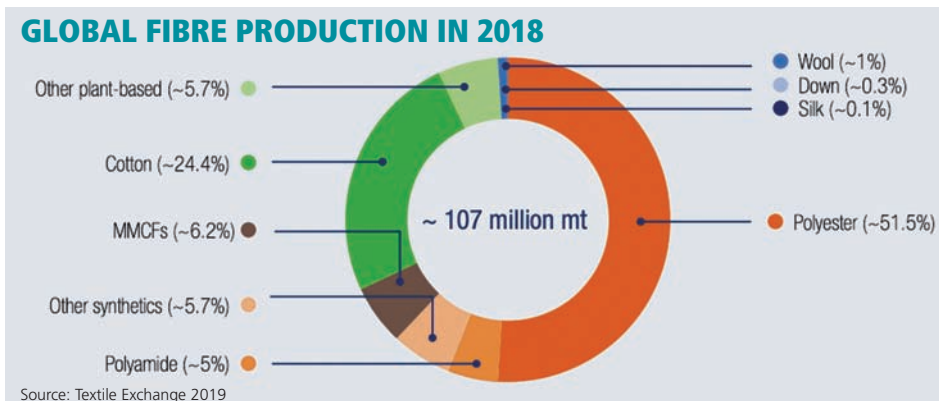
The Higg tool is evolving to take into account the best available technologies, science and latest LCA data. Nothing in our industry is ever ‘right first time’ – ask any textile dyer – but after eight years it’s easy to see why there is still some concern that the logic behind the single MSI scores is confidential. Yet the retirement of the single score is surely a good move.

While marketers of some natural fibres and leather have only cautiously welcomed this decision, they must remember that no other industry as complex as the textile sector – not one – has got anything like the Higg Index, with verified environmental data from over 13,000 supplier factories to support its efforts.

The next step is now for the establishment of working groups to create aligned models for specific material categories, enhance the submission process for MSI contributors, and to offer more frequent training.

The leather and natural fibre sectors should constructively engage with the SAC if they want to influence Higg MSI scores, and encourage more openness and transparency.

The complete suspension of the Higg MSI should not be an option. ■



Call for forest fibres to be sourced sustainably

GENEVA – The Programme for the Endorsement of Forest Certification (PEFC) has launched a new campaign to raise awareness of the need to source natural fibres, such as viscose, acetate and lyocell, from sustainably managed forests. The campaign, entitled *Fashions Change, Forests Stay*, argues that forest fibres have huge potential to help the fashion industry on its sustainability journey, but must be sourced responsibly.

It urges brands and retailers to help support the vitality of the world's forests by ensuring their fibres are sourced from forests recognised as sustainable via the PEFC's chain of custody certification. PEFC spokeswoman Fabienne Sinclair told *Ecotextile News*: "Forest fibres make up 6.2 per cent of global textile production and it's growing. We want to make sure that the fashion industry is aware of the need to source from certified forests so they are not contributing to deforestation."

"The world's forests already store more carbon than all exploitable fossil fuel deposits, so increasing their ability to mitigate climate change is an obvious option," added CEO Ben Gunneberg.

Web: bit.ly/2I6JdeC

Bank & Vogue, Renewcell prolong partnership

SUNDSVALL – Bank & Vogue, the parent company of vintage fashion retailer Beyond Retro, has signed a new multi-year agreement with textile recycler Renewcell and will supply upwards of 30,000 tonnes of pre- and post-consumer waste a year to fuel the firm's production of Circulose branded fabric.

The commitment cements Bank & Vogue's position as Renewcell's largest supplier, and will ensure that the burgeoning Swedish innovator – which has just moved to a larger facility in Sundsvall, Sweden – retains a consistent stream of material.

"With this agreement, we take the next step to industrial scale textile-to-textile recycling. I'm truly impressed with Bank and Vogue's experience and capacity for innovation, and without them we wouldn't be where we are, ready to put shovel to the ground for our next recycling plant," commented Renewcell's CEO, Patrik Lundström.

Renewcell recently made the move from a site in Kristinehamn, southern Sweden, from which it's expected that the company will be able to produce upwards of

60,000 tonnes of Circulose fabric a year.

That move is now shaping up to be a very smart one, as the Bank & Vogue partnership will provide the much-needed materials required to produce Circulose.

Lundström says: "Today, less than one per cent of all clothes are recycled back into clothes, and that carelessness is driving climate change and ravaging natural environments. Together, we prove fashion waste unnecessary – all clothes should be used, reused and recycled."

Web: bit.ly/3mPotGZ

Primark signs up to UN Fashion Charter

LONDON – Fashion retailer Primark has joined the United Nations' Fashion Charter for Climate Action committing the company to achieve net-zero greenhouse gas (GHG) emissions by 2050 and a 30 per cent reduction by 2030. Primark has pledged to tackle emissions from across its entire value chain, including 'Scope 3' emissions outside its own operations which make up the vast majority of its carbon footprint. The company has also agreed to analyse and set a decarbonisation pathway, drawing on methodologies from the Science-Based Targets initiative (SBTi). Katharine Stewart, ethical trade and environmental sustainability director at Primark, said: "While we



Primark will strive to achieve net-zero emissions by 2050.

have big ambitions to make our business more sustainable, we also know that even our small changes can make a big difference, simply because of our size. And we want to do all this without passing the cost on to our customers, as we believe that sustainable fashion shouldn't come with a big price tag." The company says it has worked hard to measure its Scope 3 footprint to identify further GHG reduction opportunities such as tackling emissions generated by the use of raw fabrics and materials, its largest source of emissions.

These include doubling the number of products made with recycled materials to 40 million items this autumn, and training more cotton farmers in more environmentally friendly practices through the Primark Sustainable Cotton programme. Primark also partners with charities to donate unsold products from its stores, and it operates an in-store recycling scheme for UK customers to donate their unwanted clothes. It plans to roll this scheme out in other markets.

Web: bit.ly/2TTbY0o



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Resale platform Vinted acquires Dutch rival

VILNIUS – Online fashion marketplace Vinted has announced the acquisition of Dutch second-hand platform United Wardrobe as it looks to create a one-stop shop for European fans of pre-owned clothing.

This coming together boosts Vinted's outreach massively in the Netherlands and means it will now have upwards of 34 million buyers and sellers on its site spanning 11 major nations on the continent including France, Spain and Belgium.

Sjuul Berden, CEO of United Wardrobe, commented: "Together, Vinted and United Wardrobe can scale faster – doubling our rate of expansion to new markets – and deliver a truly unique product to our community of members across Europe. We're confident that together, we can supercharge our growth journey and become a significant player in secondhand fashion worldwide." United Wardrobe has been one of the go-to platforms for second-hand fashion in the country but will now be integrated into the Vinted platform drawing more eyes to a single, competitive marketplace. Vinted enables customers to list their own stock for free, encouraging a circular economy around unwanted clothing. As the two join forces then, United Wardrobe's CEO, Sjuul Berden, and CTO Maud Behaghel will join the seniority of Vinted to continue to oversee the fruition of the second-hand marketplace across Europe.

Web: bit.ly/38bdRyo

Brands back supply chain assessment tool

AMSTERDAM – Some 34 leading brands, retailers and other organisations now say they will accept Social and Labour Convergence Programme (SLCP) verified assessments in place of their own proprietary audits.

They include Adidas, C&A, Fast Retailing, G-Star

RAW, Gap, H&M Group, Inditex, New Balance, Nike, Puma, PVH Corporation, the Sustainable Apparel Coalition (SAC), Target, Under Armour, VF Corporation and Zalando.

The SLCP says the support for its initiative demonstrates real progress towards its goal of

reducing the audit burden on manufacturers, freeing up resources to improve working conditions.

The multi-stakeholder initiative has more than 200 signatories including manufacturers, brands, retailers, industry groups, international and governmental organisations, service providers and civil society groups.

They collectively developed the SLCP's Converged Assessment Framework (CAF) to replace the multitude of repetitive and duplicative social and labour audits with one single, high-quality tool.

As well as the 34 brands, retailers and organisations now publicly stating they will accept SLCP-verified data instead of conducting their own audits, more signatories are adapting their systems to accept SLCP-verified data in the near future.

The Sustainable Apparel Coalition (SAC), which has more than 250 members, has fully integrated CAF as the backbone of its Facility Social and Labour Module (Higg FSLM).

"With the world still in the grips of a global pandemic which continues to disrupt supply chains and severely impact the lives of workers, never has the need for industry collaboration, efficiency, and reliable social and labour data been stronger," said an SLCP statement.

Web: bit.ly/38beGHu



More than 300 million shoes end up in landfill each year in the United States alone.

US footwear brand kick-starts shoe recycling programme

NEW YORK – Footwear brand Thousand Fell has partnered with recycling innovator TerraCycle and package delivery firm UPS to develop a closed-loop shoe recycling programme which encourages consumers to return their trainers in return for store credit.

Through this initiative, members of the general public will be able to take pre-paid and packaged used Thousand Fell footwear to one of 14,400 partnering UPS or partner locations that will be distributed back to TerraCycle for product recycling.

"Now, with access to the unprecedented support and scale of UPS and TerraCycle, Thousand Fell is doubling down on their mission to never send another sneaker to landfill and securing their

foothold as a pioneer in the circular fashion economy," the US brand says.

Thousand Fell is also working with UPS company Ware2Go which will provide on-demand warehousing and fulfilment to streamline the logistics of the returned goods through to the materials use in new recycled stock.

TerraCycle will accommodate all the returned goods before processing them to be either repurposed as shoes or downcycled into lower-value items. Where it can, Thousand Fell says recycled material will be re-integrated within its supply chain in order to develop shoes that comply with the circular principles of the programme.

Web: bit.ly/32dzXMF

TITAS 2020 Features 5 Main Themes

Preparing for Post-Pandemic Market Opportunities in Advance

Organised by the Taiwan Textile Federation (TTF) under the auspices of the Bureau of Foreign Trade, Ministry of Economic Affairs, Taipei Innovative Textile Application Show (TITAS) closed with success on October 15th. Despite COVID-19, 356 exhibitors from 11 countries participated, including Taiwan, U.S., Sweden, Germany, Switzerland, Japan, Korea, Vietnam, Hong Kong, Singapore and China in a total of 803 booths.

Due to travel restrictions, TITAS integrated online and offline measures to help exhibitors explore more business opportunities including online catalogues, virtual one-on-one business meetings, live streaming videos and more.

TITAS invited more than 40 brands from 15 countries to participate in physical and virtual one-on-one meetings with over 100 exhibitors, and produced live interview videos for 16 exhibitors to stream online.

COVID-19 brought opportunities for Taiwan's textile industry with firms modifying production to produce protective textiles. This year, it showcased products in 'Personal Protection', 'Function' and 'Sustainability'.

Some of the show highlights included:

- A+ Smart Thermoregulation clothing by FTC (Formosa Taffeta) is a cross-industry collaboration from the textile, telecoms, electronics and garment industry. Materials are monitored via smart phones, tablets and smart watches to regulate the thermal and light-emissions from of a garments signal safety.
- Formosa Chemicals & Fibre Corporation (FCFC) introduced chitin-derived fibers and compound fibers with anti-bacterial, mildew-proof, deodorant features with proven anti-bacterial results up to 99%.
- Far Eastern New Century Corporation (FENC) was fully supportive of the supply chain for surgical face masks with its special FENC® Hycare Staple Fiber series. FENC produced 600 tons of this sheath & core bi-component bonding fiber each month, equivalent volume of 1 billion face masks.
- Eclat Textile Co., Ltd. introduced their incredibly refined Softform which cut down production processes but with special construction designs and material, it offers three main innovative functions that are "light weight and permeability", "flexibility and comfort" and "keeping warm in winter".
- Yi Shin textile's new generation of Magic BES (Biodegradable Enhancement Solution) materials can expedite biodegradable process of waste synthetic fibers or recycled products to with micro-organisms in anaerobic or aerobic environments to avoid secondary pollution from recycled materials.

Another two main themes at TITAS were 'Smart Textile' and 'Smart manufacturing'. Some of the key exhibitors included:



▲ ROC Vice President Lai Ching-te, Chairman Wong and Honorary Chairman Hsu of TTF congratulated TITAS for the successful exhibition.



▲ Buyers visited trend forum.



▲ Presentation on the Medical protection textiles.

- Tex-Ray has invested in the development of smart garments for years with products that can be used in sports training, outdoor activities or remote care. These products are trendy, smart, and functional, brining brand new experiences for the users.
- iQmax® Wireless EMS Textiles – a technology that combines fiber with electronics. The wearable technology market applies smart textiles, garment finishing and components like pressure, temperature, touch panel and other features to enhance personal protection, health care, comfort, and the garments can be more interactive and responsive to the wearer.
- Oshima Co., Ltd. brought a competitive edge to Taiwan's manufacturing technologies. Solutions from Smart Automatic Cutting Machine Series J3 and M8S can increase the capacity of protective garments from 2,700 to 16,200 pieces per day. Oshima have become the key partner for international garment manufacturers.
- MEGASEW Sewing machines are equipped with features like bright board with light under the fabric, needle bar hidden oil seal design, and direct drive computerized mini servo motor design. With these features, products are eco-friendly, user-friendly, highly efficient, and aesthetically pleasant, offering high-quality results for discerning major brands.

TTF has announced that TITAS 2021 will be held at the Taipei Nangang Exhibition Hall on 13th – 15th October. TITAS will continue to assist our exhibitors to develop international markets so Taiwan can be the manufacturing and developing center for high-end textile products in Asia!

ThredUp set to go public as resale interest snowballs

SAN FRANCISCO – Online resale platform ThredUp has submitted a draft registration statement with the Securities and Exchange Commission for an initial public offering (IPO) of its Class A common stock. The number of shares set to become available and the price point has not yet been revealed, but the move is likely to pique the interest of fashion industry investors as second-hand fashion currently has a market value of US\$30-40 billion that's expected to increase at a compound annual growth rate of 20 per cent over the next five years. According to a statement, the IPO is expected to commence after the commission completes its review process, subject to market and other conditions. Over recent months, ThredUp has reportedly been in close dialogue with investment banks with regards to what their potential roles in this IPO could be. Bloomberg reports that the IPO could raise upwards of US\$200 million, which the public company could then use as it sees fit.

A growing focus within industry on sustainability-coupled with consumer interest in platforms such as Depop has created a fertile environment for exponential growth within second-hand fashion.

Web: bit.ly/32awrCR

Updated APR supplier tool maps conservation efforts

JAKARTA – Viscose producer Asia Pacific Rayon (APR) has announced an update to its Follow Our Fibre blockchain-based tool which will now display information of its suppliers' conservation and biodiversity efforts.

The platform was launched last May by the company in order to provide authentication of the origin of its material to customers and end-consumers, but will now also detail the environmental projects its suppliers are working on as to ensure those in its

supply chain are similarly committed to protecting critical ecosystems.

Cherie Tan, vice president of sustainability and communications at APR, commented: "It is vital that we work with our supply partners to protect and strengthen forest landscape conservation areas rich in flora and fauna, and home to threatened and endangered species for today and future generations."

For viscose suppliers like APR, protecting such areas more closely translates to ensuring that peatlands and ancient

forestry is not chopped down for wood pulp at the compromise of what are rich animal ecosystems.

APR suppliers are collectively responsible for the conservation of more than 3.12 million hectares of forests around the world, including boreal and peat swamp forests. These protected forests have rich biodiversity like the rare Sumatran tiger and Canada's boreal caribou, and provide additional ecosystem services, including 22 rivers and tributaries totalling over 900km.

Web: bit.ly/388x9V1

Bangladeshi worker finances crippled by COVID

DHAKA – New research on the impact of COVID-19 on Bangladesh's ready-made garment (RMG) sector has highlighted a major drop in worker incomes, as a group of 115 surveyed workers said their wages had more than halved compared to 2019. Four factories, of which two ran standard operations and the other two were titled 'champion factories' – because of additional benefits and a progressive workers rights approach – allowed their staff to be assessed as part of this analysis, overseen by the Girls Advocacy Alliance (GAA) and the Awaj Foundation. The findings paint a bleak picture, with debt on the rise



Workers say their wages have halved in 2020, compared with last year.

amongst this workforce forcing necessities like food and education to be sacrificed. Amongst the survey findings, 98 per cent of people said they'd been forced to spend their wages on more health and safety equipment, such as PPE, sacrificing food and education. 27 per cent of respondents say they decreased their spending on food to such an extent that they're now suffering from a nutritional deficiency of some sort. Whilst the situation amongst 'champion' factory workers isn't as grim, because these sites have provided free COVID-19 tests and have

amongst their ranks a higher proportion of women in positions of management, those in standard factories have had to pay for testing out of their own pockets.

In order to provide support, local NGOs have outlined 12 recommendations that they feel could ease the hardships. These include: increasing testing facilities, ensuring factory bosses are supporting workers, encouraging participatory auditing safety measures, and enabling active monitoring by government institutions such as the RMG Sustainable Council (RSC).

Web: bit.ly/35dgUEK



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New report examines circularity potential in India

AMSTERDAM – The Fashion for Good initiative has teamed up with the Circular Apparel Innovation Factory to draw up a report on the potential for circularity in the fashion and textiles industry in India.

Entitled *State of Circular Innovations in the Indian Fashion and Textile Industries*, it aims to give a comprehensive overview of the sustainability opportunities and challenges across the Indian supply chain.

The report's authors say it is the first time that such an overview of innovation in the industry in India has been compiled. The study covers innovations across the supply chain, from sourcing raw materials through to end-of-use.

It highlights the exciting developments with which the region is accelerating towards circularity. Areas needing additional attention and investment are also identified, providing a unique resource for stakeholders and investors. The report highlights four key enablers needed for the transition to circularity in the Indian fashion industry: a sustained focus on research and development; policy incentives to establish and strengthen local supply chains; investment in innovations; and up-skilling workers.

"We believe that accelerated dynamism in the circular innovation landscape will drive efficiencies across the Indian fashion and textile supply chain, enabling the industry to leap-frog to sustainability," it concludes.

Web: bit.ly/2144hT1

Calls for field-to-fabric transparency

LEEK – Only three out of ten major fashion companies reveal even partial details of where the textiles for their garments are produced, according to a new report by the Fashion Revolution initiative.

Entitled *Out of Sight: A*

call for transparency from field to fabric, the report was produced in support of the Tamil Nadu Declaration which aims to eradicate labour exploitation in the textile manufacturing hub of Tamil Nadu, India.

Researchers examined



South Africa produces around 50 per cent of the world's mohair.

Oritain to trace South Africa's mohair in new partnership

CAPE TOWN – Mohair South Africa, the industry body for the country's mohair, has partnered with material verification specialist Oritain. South Africa produces around 50 per cent of the world's mohair, used in industry's like fashion particularly by high-end brands, and so is a target for counterfeiters due to the sheer abundance of material it exports globally.

South Africa's booming mohair industry employs upwards of 30,000 people, responsible for the bi-annual sheering of the angora goat's fleece before it's exported to countries around the world. Due to its versatility and reputation as a premium product, it could easily be targeted by counterfeiters looking to cash in with cheap iterations. That's something

that will now be snuffed out as Mohair South Africa establishes a partnership with Oritain, a company rolled out from the University of Otago.

Its specialism lies in forensic science, and Oritain has found growing appetite amongst stakeholders in the fashion and textile industries as companies look to protect their intellectual property whilst offering assurances to customers that they're receiving the real deal. Oritain uses a combination of forensic science and technology to analyse mohair fibre and verify exactly which country it comes from. This gives manufacturers, brands, and consumers insight into the content of their mohair purchases.

Web: bit.ly/3mTfwNc

the information disclosed by 62 major fashion brands and retailers to determine how transparent they were about every stage of their global supply chains.

They found that 46 companies disclosed details of their first tier manufacturers – the final stages of production – while only 23 revealed at least a partial list of the processing facilities where their garments were printed, dyed, laundered and embroidered.

And only 18 companies (31 per cent) disclosed a partial list of their textile production sites such as spinning, knitting, weaving and fabric production facilities.

"This is a problem because fragmented and opaque supply chains can allow exploitative and unsafe working conditions to thrive while obscuring who has the responsibility and power to redress them," said Fashion Revolution.

The initiative hopes that its report will serve as a call-to-action which holds fashion brands accountable for exploitative and unsafe working conditions.

It is calling on brands to sign the Tamil Nadu Declaration and to make progress on its first goal - to expand supply chain transparency beyond tier 1 cut-and-sew operations by publicly disclosing the details of all textile manufacturing processes and finished product facilities.

Web: bit.ly/3jWlGmj

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The Case for Collaboration within the Industry

The future of fibers is based on collaboration within the industry. Why?

Pull back to look at the big picture of what the textile industry aims to achieve for success, growth and sustainability long-term. The list includes complex goals to address global impacts for climate change with circularity and material creation all while delivering on increasing expectations for performance and value.

With many years of experience developing successful collaborations, the team at Sorona® understands that collaboration is what drives the most impactful innovations and results that revolutionize textile design.

This spirit of collaboration has created industry firsts and continues to inspire throughout the value chain.

“Our collaborations with other fiber companies allow more apparel brands the opportunity to weave sustainable comfort into their products and achieve the ultimate blend of eco-efficiency and performance. We’re proactively addressing tomorrow’s challenges with partners that value renewably sourced fiber materials without compromising quality,” says DuPont Biomaterials Global Marketing Director Renee Henze.

Collaboration at Scale

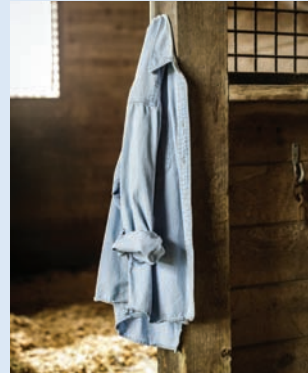
Driving innovation at scale is the only clear path to growth and change. That means creating dynamic solutions that have a variety of uses.

Sorona® partnered with TENCEL™ Lyocell and TENCEL™ Modal fibers from Lenzing resulting in a new certified mill-collection that expands the future of sustainable textiles for designers to use in various applications including active wear, ready-to-wear, intimates and denim. This new offering gives extremely soft garments greater resilience in stretch, recovery and dimensional stability and encompasses an entire range of constructions, colors and weights.

To meet demand for sustainable fashion options in everyday casual wear, Sorona® also recently launched a blended fabric collection with Eastman Naia cellulosic fiber to create garments with exceptional stretch and recovery, luxurious drape and a smooth, soft handfeel. The new collection expands the future of sustainable textiles for designers with fabrics that are luxurious and easy-to-care-for with quick-drying properties and reduced pilling.



▼ The Sorona® partnership with Naia™ expands the future of sustainable textiles for designers of comfortable everyday casual wear. Made with responsibly sourced wood from sustainably managed pine and eucalyptus forests and plantations, Naia™ brings the richness of nature to effortlessly luxurious fabrics.



▲ An ISPO Textrend “Best Product” for the Fall/Winter 2021/22 season, Sorona® faux fur styles provide limitless solutions for the inside lining or trim of a jacket as well as footwear and accessories including fur-lined shoes, earmuffs and more.



▲ The blend of Sorona® fibers and TENCEL™ Lyocell and TENCEL™ Modal fibers encompasses an entire range of constructions, colors and weights.

Industry Firsts

The faux fur market is projected to grow 19 percent worldwide from 2019 to 2023 due to increasing consumer demand for more transparent and ethical fashion.

To answer the call, Sorona® and ECOPEL created KOBFA faux fur by ECOPEL. With 70 to 100 percent Sorona®, it’s the first commercially available faux fur made with bio-based ingredients and features an array of performance attributes including warmth, durability and dyeability, enabling more design possibilities including unique colors not typically seen in nature, as well as the recreation of colors and patterns common in real fur.

Designers such as Stella McCartney and international brands including Canada Goose have already adopted the use of Sorona® and KOBFA faux fur in their collections.

Innovation for the Future

Thinking beyond apparel, Sorona® is also creating ideas that touch the home. Together with Unifi, Inc. and Youngone, Sorona® unveiled a new collection of insulation products that offers soft, dimensionally stable and sustainable options for cold-weather garments and bedding materials.

Leveraging Sorona® renewably sourced fibers and Unifi REPREEVE® recycled content, three unique insulation products were created including the ECOloft™ eco-elite™ insulation collection – first post-consumer recycled product that also incorporates bio-based materials for innovative, breakthrough insulation.

“It’s our hope that more brands will see the value in collaboration and the potential it has to create real solutions to shape the future of our industry,” says Henze.

Contact: [Alexa Raab](mailto:alexa.raab@dupont.com) | alexa.g.raab@dupont.com

John Lewis announces new take-back ambition

LONDON – Retailer John Lewis has announced a new take-back scheme which it hopes to extend across all of its product categories by 2025. “Rent, recycle, re-use, these are areas which to be frank any retailer has got to be more assertive and more aggressive in,” Sharon White, chairman of John Lewis Partnership, said. As it encourages consumers to return unwanted items then, in aid of a circular economy, John Lewis says the brand holds ambitions for all key materials used in its products to be ‘sustainable’ by the same deadline.

Pippa Wicks, executive director at John Lewis, insists: “We’re only scratching the surface at the moment. I was reviewing some of our furniture products last week and they’re actually part of the circular economy, so we’re also thinking about how we design our products.” As it looks to branch out then with its plans for the product take-back scheme, an area not yet explored by John Lewis, White insisted: “I don’t see these [ideas] as an overstretch.”

“I see these as a very natural extension and a deepening of the relationship we have with customers, and taking the partnership model – which is very important at this time in the country – to a broader set of services and customer relationships,” she concluded.

Web: bit.ly/3p4Xr0i

EPR framework must meet 2022 target, TRA says

MAIDSTONE – The Textile Recycling Association (TRA) is urging the UK government to ensure that the review on Extended Producer Responsibility (EPR) on clothing and textiles, which they committed to in the Waste Strategy for England in 2018, is completed by 2022 at the latest.

In a position paper published by the association highlighting its stance on the matter, it notes eight key issues that are quintessential to delivering a robust and comprehensive EPR framework.

First of all, the TRA says the scheme must outline which areas of the

industry will be “in scope” – meaning will it just be clothing, or shoes and accessories, bags, etc?

Next, it believes that full responsibility must be placed firmly at the feet of the companies in this scope. “This includes invoking the “Polluter Pays Principle”, the position paper reads.

Point three addresses the need for products to be designed into such a framework, ensuring they’re capable of being recycled at their end-of-life and leverage ‘sustainable’ materials where possible. Point four emphasises the important role consumers must play in making the EPR

framework a success. In-line with the need for all consumers to engage, point five underscores the need for all stakeholders in the pre-determined scope to be held accountable for what they sell.

The need for both robust recycling infrastructure and administration to oversee progress, are points six and seven. The final issue that needs addressing before the government makes public such plans is ensuring that this framework is complementary to other ongoing efforts within the clothing and textile supply chains and isn’t at odds with their ambitions.

Web: bit.ly/3khlQfn

The RealReal opens its largest second-hand store

CHICAGO – Consignment company The RealReal has opened its largest ever brick-and-mortar store in Chicago, Illinois, in a telling sign of the increasing consumer engagement with second-hand apparel.

The company, which has to date partnered with the likes of Gucci and Burberry, says the new store will champion sustainability by spotlighting garments made using ‘sustainable’ materials, as well as offering a repair service in order to prolong the life of items in circulation.

“Opening our largest store yet



The store will champion garments made from ‘sustainable’ materials and will adopt compostable packaging.

gives us even more opportunity to create a rich experience for buyers and consignors,” said COO of The RealReal, Rati Levesque. “We hope this new flagship store will drive even more Chicagoans to support resale and help us make fashion more sustainable.” The store has considered its approach to all aspects of operations, with the company insisting that sustainability will be paramount. The firm says garments using ‘sustainable’

materials will be displayed, refurbished vintage furniture will be used throughout the store and compostable packaging will be used where possible in its café.

“What sets our stores apart is how far beyond the transaction they go. Stores are a way for us to deeply engage with our community, which is why experts and services are at the heart of our store experience,”

Web: bit.ly/3n7q8bm

SPONSORED CONTENT

Coming Clean on Clothing

How often we wash our clothes – or not – turns out to be an influential factor in their environmental impact. Fibre type plays a key role. Here's how.

A new scientific study led by researchers in Norway¹ finds that people care for their clothes in different ways depending on what the clothes are made of. This in turn, the researchers show, has significant effect on the use of resources needed for laundering – resources such as water, energy, and related greenhouse gas emissions.



Published in the peer-reviewed journal *Sustainability*, the research is based on the results of a quantitative wardrobe survey of more than 200 consumers in each of China, Germany, Japan, the UK and the US each, plus additional qualitative laundry diary data from 30 consumers in each country.

Woollen garments have the lowest water and energy use per wear, the study found. Clothes made from wool were washed less frequently than those made from cotton, cellulose, and synthetics.

The study demonstrates the positive eco-credentials of wool, says Angus Ireland, Deputy Chair of the International Wool Textile Organisation's Sustainable Practices Working Group.

"It helps demonstrate to the fashion and textile trades – as well as consumers – that wool is the 'planet-friendly' fibre of choice."

Research like this underscores the need for consumer behaviour data to understand the true environmental impacts of clothing.

THE LAUNDRY FACTOR

In a world where there is increasing concern about 'fast fashion' and the effect on the environment of synthetic textiles, it is more important than ever to ensure accurate environmental assessments for apparel.

With laundering frequency being the most important indicator of energy consumption during the use phase

when clothes are being worn and washed, it is clear that consumer awareness of the laundering needs of different fibre types plays a vital part in sustainability.

Wool clothing requires less washing because of the fibre's natural resistance to odour, stains, and wrinkles.

"The fact that wool clothes need less frequent washing not only reduces energy and water consumption, it also preserves the as-new look of the garment, enabling consumers to continue wearing it for longer," Angus Ireland says.

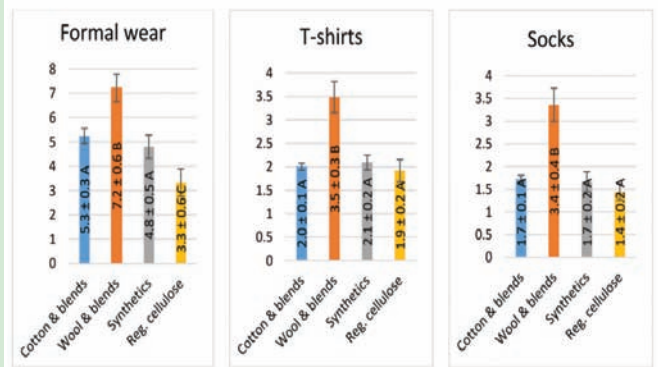
"Washing frequency also drives the release of microfibres into the environment. While not a concern for biodegradable fibres such as wool, the higher washing frequency needed for synthetic garments magnifies the problem of microplastic pollution."

WIDER IMPACTS

This research provides quantified and robust data about the environmental impacts of clothing during the time they are actively used. The results will be utilised in the IWTO's engagement with the European Union's Product Environmental Footprinting initiative (PEF). IWTO is part of this industry-wide initiative to calculate the footprint of apparel and footwear.

The PEF is expected to become the most influential market-facing reporting system for green credentials.

Mean number of days garments are worn between cleaning



Jeannette Cook is Communications Manager at the International Wool Textile Organisation.

Through scientific research, wool textile education and knowledge sharing, IWTO ensures a sustainable future for wool. To learn more about wool and the PEF, please feel free to get in touch with us. www.iwto.org

1. Laitala, K.; Klepp, I.G.; Kettlewell, R.; Wiedemann, S. Laundry Care Regimes: Do the Practices of Keeping Clothes Clean Have Different Environmental Impacts Based on the Fibre Content? *Sustainability* 2020, 12, 7537. Available by open access.



CCC publishes Position Paper on Transparency

AMSTERDAM – Workers' rights organisation Clean Clothes Campaign (CCC) has published a new *Position Paper on Transparency* which says that the voluntary actions of industry stakeholders "will never achieve the substantial change necessary". The bottom line of the CCC's position is that it wants new legislation to make it a mandatory requirement of stakeholders to provide detailed insight into supply chain operations, to underpin the industry's sustainability efforts. For governments, the focus is of course on creating legislature that makes supply chain disclosure compulsory at both factory and product level. For brands, the CCC says: "Transparency is vital to the due diligence process, and the level of transparency shown by a brand is directly connected to the level of control they have over their supply chain: in other words, having that information indicates that the company has carried out due diligence on their suppliers." The CCC concludes: "In order to enable transparency from the bottom up, and to illustrate their commitment to respecting human rights, suppliers and manufacturers should disclose their social impact information too."

Web: bit.ly/32rsxW6

Vivobarefoot launches complementary buy-back scheme

LONDON – UK footwear brand Vivobarefoot has launched a global buy-back campaign which will reward consumers for returning unwanted shoes, as it looks to get the ball rolling with its ReVivo resale service.

Now, Vivobarefoot customers are entitled to a 20 per cent product discount on future purchases if they send back their branded shoes to be repaired and resold. The company is keen to chip away at the billions of shoes which end up in landfill each year by

prolonging the life of those still in circulation.

"No doubt, the elephant in the sustainable shoe room is end-of-life," said company CEO, Galahad Clark. "The launch of ReVivo is a super exciting step in that journey and one of many initiatives we are taking to make sure none of our shoes ever end up slowly decaying in landfill."

Through the ReVivo programme, in collaboration with the Boot Repair Company, returned shoes will undergo necessary

revamp work before making them available once more on a dedicated Vivobarefoot site.

These items will be accompanied by a grade which provides some detail as to what condition the shoes are in. Grade 1 suggests the shoes are almost new based on their condition, Grade 2 means they remain in great condition, and Grade 3 translates to the footwear being in good condition, having been subject to major repair work and being re-soled.

Web: bit.ly/2ImhOWn

Adidas to beta test recyclable shoes with consumers

HERZOGENAURACH – Sportswear giant Adidas says it plans to embark on a beta testing phase of its new mono-material, recyclable performance footwear, UltraBoost DNA Loop, as it looks to assess the engagement of consumers in a closed loop manufacturing system. The footwear, incepted in April of last year, is made entirely from recycled TPU and uses no glue, as to provide idyllic circumstances for the product to be recycled and upcycled into new shoes. "To make this a success we need to understand the human element – how people can be encouraged to return the shoes to be recycled – because while we control the creation, we can only influence what happens when the shoes



The UltraBoost DNA Loop will be beta tested by 200 people.

leave us. We can't get there alone," said James Carnes, VP of brand strategy at the sportswear firm. With positive consumer testing feedback to date, Adidas plans to embark on a third phase which will see as many as 200 people trial the footwear for an extensive 21-week programme. People can sign up for free to be put into a raffle that will determine who gets the shoes, which will be done at random.

First though, Adidas has created a short quiz focused on sustainability in fashion and within Adidas' operations, after which candidates will be registered with a chance to win. "UltraBoost DNA Loop is not just a shoe, it's a movement and we want our community of creators to help us define a better future where products are 'Made to be Remade'," commented Carnes.

Web: bit.ly/3IfLx1j

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Radici Group sets up R&D non-profit

GANDINO – The Radici Group has announced the founding of a non-profit consortium to develop new research and innovation projects.

Called Radici InNova, it will focus on projects for the chemical, high performance polymers and advanced textile solutions sector that fit within the company's sustainability strategy. It says the new entity will "renew and strengthen its commitment to a development model that balances economic profitability with environmental sustainability and social equity".

"The formation of Radici InNova represents an important milestone for the whole group on its path towards innovation, which was started many years ago," said Radici Group president Angelo Radici. Radici InNova will manage and coordinate all the group's strategic research activities, with the objective of continually improving products and processes, while optimising the use of resources and lowering environmental impact.

It will focus on five key areas: developing polymers from bio-source materials; producing chemical intermediates from natural sources; developing circularity; new business opportunities such as PPE; and the optimisation of industrial processes.

Stefano Alini, head of the new company, commented: "Particularly at this stage, our goal is to contribute proactively to the restart of our industry through innovation and sustainability, two pillars of our group vision."

Web: bit.ly/2KbWByQ

H&M to offer garment to garment recycling

STOCKHOLM – Swedish fashion brand H&M is offering customers the chance to turn their old unwanted clothes into new garments in an instore recycling machine called 'Loopo'.

The machine was developed by the company's philanthropic arm, the H&M Foundation, together with research partner the Hong Kong Research Institute of Textiles and Apparel

(HKRITA) and Hong Kong-based yarn spinner Novetex Textiles.

H&M says it's an industry first, with customers able to oversee the process from one of its Drottningatan stores in Stockholm. H&M says Loopo is part of its ambition to become fully circular and climate positive.

Loopo uses a technique that disassembles and assembles old garments into new ones. The garments are cleaned, shredded into fibres and spun into new yarn which is then knitted into new garments.

Some virgin materials need to be added during the process, but H&M says it is working to minimise these and to ensure they are sustainably sourced. The system uses no water or chemicals.

"We hope systems like the G2G (Loopo) will inspire even more creative solutions to our environmental challenges," said HKRITA CEO Edwin Keh. "By providing new life to our old clothes we can demonstrate that it is possible to use less resources and repurpose what we have."

Loopo will be available to members of H&M's loyalty programme for 100 SEK (US\$11.30), non-members will have to pay 150 SEK (US\$17). All proceeds go to projects related to research on materials.

Web: bit.ly/32pJwZ0



Israel outlines intention to ban fur trade

JERUSALEM – Israel says it intends to become the first nation globally to ban the buying and selling of animal furs. Environmental protection minister Gila Gamliel described the trade of such products "immoral" and has stated that new rules will require people to obtain a permit if they're to engage in such activities – which will only be given the green light in cases of "scientific research, education or for instruction and for religious purposes or tradition". Animal rights organisation PETA has influenced brands across the fashion industry to ban fur due to cases of gross negligence on farms rearing a variety of species. It's also launched campaigns encouraging governments the world over to ban the sale and movement of fur.

Following Gamliel's announcement then, PETA said it applauded the decision and has praised Israel "for recognising that the trade in coats, pom-poms, and other frivolous fashion items made from wild animals' fur offends the values held by all decent citizens". That said, there are expected to be exemptions, which will likely apply to Israel's sizeable ultra-Orthodox community, among whom many of the men wear large round fur hats called shtreimels. Bar that, permits will only be distributed if the use case of fur is shown to be for one of the aforementioned reasons, including scientific research. Anyone found breaking the law in Israel will face a fine of up to US\$22,000.

Web: bit.ly/2JFVkjh

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Consumers lack trust in brand sustainability claims

LONDON – New research concludes that just one fifth of consumers in the UK trust the sustainability claims of fashion brands, and think companies should do more to authenticate such assertions.

The Knowledge is Power – Consumer Trust in Sustainability report indicates that sustainability claims often fall on deaf ears with UK consumers becoming savvy to greenwashing. As such, 83 per cent of the 1,250 consumers surveyed, believed brands and retailers should verify their claims using third-party stakeholders.

Of the sample surveyed, 53 per cent insisted that brands and retailers had the most power to influence positive change within the industry, but this could only be achieved with consumer engagement.

Consumers indicated that they first wanted brands to build trust with customers as this was substantially lacking at present – with only one in five believing companies' sustainability claims. What's also clear is that greater education on the industry's impact is required to enable consumers to make more informed decisions on the goods they purchase. Some 72 per cent of respondents understood that 'sustainable' products came from sustainable sources, yet only 22 per cent associated worker wages with 'sustainable' operations.

Web: bit.ly/3p94c0J

Zalando reacts to demand for sustainable fashion

BERLIN – European fashion platform Zalando says it is accelerating its efforts to meet the needs of the growing number of its customers demanding more sustainable fashion.

The online retailer has increased the number of available items classed as 'sustainable' from 27,000 to more than 60,000 after the number of people buying them more than doubled to 40 per cent since the beginning of 2020.

Zalando has also launched 'redeZIGN for Circularity', the company's first capsule collection designed with

circularity in mind, in partnership with sustainable fashion innovation platform, Fashion for Good, and Berlin-based startup, circular.fashion.

"According to a recent internal survey, 34 per cent of our customers said that in light of the coronavirus pandemic, sustainability has become more important to them," said Rubin Ritter, Zalando's Co-CEO.

"Together with our partners, we want to be the engine for this change and enable our customers to make more sustainable choices even more easily."

The circular capsule collection is produced by Zalando's sustainability label ZIGN. A QR code woven into the labels enables customers to learn about how and where garments were made, as well as end-of-use opportunities such as trading in or recycling them.

Kate Heiny, Zalando's director of sustainability, said: "We're excited to offer our customers a collection designed with circularity principles in mind and testing an end-to-end solution that goes beyond circular design."

Web: bit.ly/2IISMHD

Mango publishes list of Tier 1 suppliers

BARCELONA – Fashion brand Mango has become the first in Spain to publish a list of all Tier 1 suppliers used this year. Its actions fulfil the requirements of the Transparency Pledge Standard, an initiative launched by a coalition of nine employment and human rights organisations committed to transparency in the supply chains of the clothing and footwear industry.

"Within Mango's commitment to sustainability, it is essential to establish responsible management of our supply chain which, together with the participation of certain stakeholders, contributes to transparency and is the key for the due diligence



Mango has become the first Spanish brand to publish a complete list of its Tier 1 suppliers.

towards our suppliers," a company statement says. The publication of this list is part of the Bilateral Agreement signed between Mango and the Comisiones Obreras trade union in 2018. Since this partnership firmed up, the trade union has worked to guide Mango in its efforts to strengthen the rights of factory operators, as a means of promoting responsibility within

the company's global supply chain network.

"We prioritise a trustful relationship with them [the factories], ensuring that they are aligned with our own commitments and helping to ensure the human rights of workers and strengthen the textile industry globally," Mango says.

Web: bit.ly/38mlm4t

CanopyStyle: Proving That Being Stylish Doesn't Have to Cost the Earth

In 2013, Canopy launched the CanopyStyle initiative to mobilize the fashion sector to eliminate the use of Ancient and Endangered Forests in viscose fabrics and to spur the production of Next Generation Solutions. The impetus for the initiative came from two reinforcing and mounting crises: climate change and a precipitous decline in biodiversity.

Powerful solutions such as the protection of standing natural forests and restoration of deforested or degraded areas offer one-third of the climate solution, and support 80% of the world's terrestrial species. Large-scale forest conservation is critical for our continued life of Earth.

Starting with 20 fashion brand partners, Canopy began pursuing this mission to transform viscose production's impacts and with it stabilize our natural systems. Within a year, CanopyStyle numbers had more than doubled. Today CanopyStyle includes more than 320 brands ranging from Stella McCartney to Inditex and Amazon.

It was through CanopyStyle and research into the needs of our brand partners that the Hot Button Report was born. The Hot Button is an annual ranking of the world's largest viscose producers, and an assessment of their progress in addressing sourcing risks and advancing sustainability. It ranks producers on a set of clear criteria, with the strongest performers being awarded 'green shirts'. Those directly linked to or associated with controversy have red in their shirts.

Today, the momentum and concrete environmental advances generated by CanopyStyle are noteworthy and cause for all partners to celebrate.

Canopy's 2020 Hot Button Ranking, shows that 52% of global viscose supply has attained 'green shirts'. Ten MMCF producers: Eastman, ENKA, Formosa, Jilin, Kelheim, Tangshan Sanyou, Xinxiang Chemical Fiber (Bailu), and Yibin Grace have earned green shirt designations, with Birla Cellulose and Lenzing obtaining the first-ever ranking of 'dark green'. The fashion industry now has ready suppliers to ensure their clothes are not made with the world's irreplaceable forests.

More than 90% of global viscose now has a public CanopyStyle policy in place and this year's Hot Button also features new information on producer's chemical management with support from Canopy's strategic partner ZDHC. Performance on raw material sourcing, chemical management, NextGen development, and forest conservation make the Hot Button a comprehensive "go-to" resource for any brand looking for producers that will help them meet their sustainability targets.

While eliminating Ancient and Endangered Forests from the man-made cellulosic fibre (MMCF) supply is a vital first step, it is actually the minimum bar. Canopy's



partners have also committed to trialling, and scaling up game-changing Next Generation Solutions. Four of the top five producers are now selling viscose made from recycled textiles. CanopyStyle MMCF producers have declared combined investments of over 233 USD in Next Generation R&D and an intent to procure 274 000 tonnes of Next Generation pulp.

A third, and vital component of the CanopyStyle vision and Hot Button report is translation of supply chain shifts into lasting forest conservation. Eleven producers are lending their support to advance solutions in the Great Bear Rainforest or engaging their suppliers who can directly advance conservation in forests they source from. Of particular note, Aditya Birla has agreed to scenarios with Canopy that propose to conserve approximately 70% of key intact forests – while maintaining the economic opportunities critical to First Nations and local communities and recognizing that in Canada's Boreal Forests all final decisions rest with First Nations' and Provincial governments.

CanopyStyle is a powerful example of the scale of change that can be achieved through collective action. Global supply of Ancient and Endangered Forest-free viscose is starting to become a reality - and there is a hungry market waiting for it. Of course, there's still work to do with 'red shirt' producers needing to take action to eliminate Ancient and Endangered Forests from their supply – but clearing this minimum bar is no longer what the conversation is about. In this turn around decade for our planet, CanopyStyle partners are gearing up to spur commercial production of Next Generation Solutions and forest conservation that translates temporary gains to lasting advances. We can all breathe a little easier as a result.



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GLOBAL TRADE EVENTS IMPACTED BY COVID-19 OUTBREAK – UPDATE

<p>9-10 December Performance Days Munich, Germany www.performancedays.com DIGITAL SHOWCASE TO GO AHEAD</p>		<p>2-3 February International Conference on Cellulosic Fibres Cologne, Germany https://cellulose-fibres.eu/ SET TO GO AHEAD</p>	
<p>12-14 January Texworld USA New York, USA https://texworld-usa.us.messefrankfurt.com/ DIGITAL SHOWCASE TO GO AHEAD</p>		<p>February – Date TBC Apparel Sourcing Paris Paris, France https://apparel-sourcing-paris.fr.messefrankfurt.com/paris/en.html DIGITAL SHOWCASE SET TO GO AHEAD</p>	
<p>14-16 January ISPO Beijing Beijing, China www.ispo.com/en/beijing SET TO GO AHEAD</p>		<p>9-11 March SpinExpo Shanghai Shanghai, China www.spinexpo.com/shanghai/ SET TO GO AHEAD</p>	
<p>19-21 January Neonyt Berlin, Germany https://neonyt.messefrankfurt.com/ DIGITAL SHOWCASE TO GO AHEAD</p>		<p>9-12 March FESPA Global Print Expo Amsterdam, Netherlands www.fespa.com SET TO GO AHEAD</p>	
<p>January – Date TBC Outdoor Retailer + Snow Show Colorado, USA https://outdoorretailer.com/ DIGITAL SHOWCASE PLANNED</p>		<p>17-19 March International Cotton Conference Bremen, Germany https://cotton-conference-bremen.de/ SET TO GO AHEAD</p>	
<p>February - Date TBC Future Fabrics Expo London, England https://thesustainableangle.org/ DIGITAL SHOWCASE PLANNED</p>		<p>23-26 March Fibre Fragmentation Summit United Kingdom www.microfibreconsortium.com/ DIGITAL CONFERENCE SET TO GO AHEAD</p>	
<p>1-5 February ISPO Munich, Germany https://www.ispo.com/ DIGITAL SHOWCASE TO GO AHEAD</p>		<p>4-7 May Techtextil & Texprocess Heimtextil Frankfurt, Germany https://techtextil.messefrankfurt.com/ SET TO GO AHEAD</p>	

Although every care is taken over the compilation of this diary to ensure accuracy of the dates, these can sometimes be changed due to local circumstances. It is therefore advisable to check with the appropriate organisers before travel arrangements are made.

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