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# ADVANCE DENIM'S SYSTEMIC APPROACH TO SCALING SUSTAINABLE DENIM PRODUCTION

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**AS SUSTAINABILITY** evolves from a marketing buzzword to a core demand from brands, retailers and consumers, denim producers are under growing pressure to prove their progress through measurable innovation. To meet those expectations, Advance Denim is rethinking how fabrics are made and finished—a commitment the mill says is rooted in continuous improvement, material innovation and verified impact.

Here, Bryan Hoyos, director of North American marketing at Advance Denim, discusses how the China-based denim maker is turning certifications into action, expanding its sustainable footprint and encouraging brands to take a more systemic approach to responsible fabric sourcing.

**SOURCING JOURNAL: What are some of Advance Denim's latest sustainable fabric developments?**

**Bryan Hoyos:** We're always looking at ways to merge sustainability with performance and aesthetics. One of our biggest milestones is achieving Cradle to Cradle Certified (C2C) status, which validates that some of our products can safely re-enter the economy through reuse, recycling or biodegradation. It's a holistic framework that ensures sustainability is embedded in every stage of production, not added as an afterthought.

Another exciting development is our use of HV100, a fiber innovation from Lenzing. Unlike standard lyocell, which has uniform fiber lengths, HV100 features a high variation in cut lengths that mimic natural cotton's look and hand feel. This gives denim a more textured, matte appearance with less



sheen—perfect for brands wanting an authentic aesthetic without compromising on sustainability. Essentially, you get Tencel's environmental benefits with a softer, more cotton-like finish.

**Advance Denim recently became the first Chinese mill to earn C2C Certified Version 4.1 in material health, which you briefly mentioned. What does this achievement mean for the company, and how does it support your broader sustainability goals?**

**B.H.:** Every aspect of our business builds toward a more sustainable future, and this certification reinforces that commitment. It verifies that our materials are safe, circular and responsibly produced—confirming that we're not just talking about sustainability but systemically embedding it into how we operate. Beyond certifications, we're investing in artificial intelligence (AI)-powered inspections, our Blue Loop indigo recycling system and Big Box dyeing technology, which drastically reduces water use. All of these innovations work together to transform the traditional indigo dyeing process into something cleaner and more efficient, without sacrificing the character of true indigo denim.

**"BRANDS SHOULD ALIGN WITH PARTNERS WHO SEE SUSTAINABILITY AS PART OF THEIR DNA, NOT A MARKETING TOOL."**

—BRYAN HOYOS, director of North American marketing, Advance Denim

**Advance Denim has expanded its global footprint with Advance Sico Vietnam, a fully vertical mill in Nha Trang. How will this new facility help meet the evolving needs of the European market?**

**B.H.:** Advance Sico Vietnam was built from the ground up with sustainability, efficiency and craftsmanship in mind. As European brands demand shorter lead times, lower emissions and compliance with strict environmental standards, Vietnam offers a strategic hub that checks all those boxes.

The facility is fully vertical, meaning every process—from fiber preparation to finishing—happens under one roof. That model reduces logistics emissions, ensures rigorous quality control and gives us greater agility to meet customer demand. It mirrors the same sustainable platforms we've developed in China, including Blue Loop and low-impact dyeing systems, ensuring consistency across regions as production shifts closer to Europe.

**What advice would you give denim brands and retailers as they seek new sustainable fabrics?**

**B.H.:** Many brands still approach sustainability in fragments focusing on one aspect—like water savings or recycled fibers—without addressing the full system. Real change requires a holistic, long-term approach. Choose suppliers that have fundamentally re-engineered their processes, not just those experimenting with "fashion sustainability" trends.

At Advance Denim, we've already made those systemic changes—from our energy systems to our dyeing infrastructure—so sustainability isn't a seasonal initiative for us; it's built into the way we manufacture. Brands should align with partners who see sustainability as part of their DNA, not a marketing tool. That's how the industry moves forward together. ■

## ADVANCE DENIM FABRICS

Advance AI model  
Charlotte and Sam

material health



gold

version 4.1

**ADVANCE DENIM LIMITED**

C2c Certified® Material Health  
Gold, version 4.1



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DENIM

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# HOW INTERLOOP'S PAKISTAN OPERATIONS ARE SHAPING ITS GLOBAL ESG FRAMEWORK

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**AS THE TEXTILE** industry faces mounting pressure for transparency and climate accountability, Interloop Limited is redefining large-scale manufacturing through cleaner production, regenerative agriculture and data-driven sustainability. Here, Faryal Sadiq, chief marketing officer at Interloop Limited, discusses how the company is future-proofing its operations through renewable energy, digital traceability and a unified environmental, social and governance (ESG) framework designed to help brands meet evolving global standards.

**SOURCING JOURNAL:** Interloop recently announced a \$35.2 million investment in a garment and hosiery manufacturing facility in Egypt's Suez Canal Economic Zone. What motivated the expansion, and how will you integrate sustainability into the new facility from the ground up?

**Faryal Sadiq:** Egypt gives us strategic access to Europe and the U.S., supporting nearshoring while reducing lead times and logistics emissions. It strengthens supply chain resilience, and with shifting tariffs and trade regulations, that agility matters.

We're building this facility for efficiency from day one, just like our operations in Pakistan. It's about renewables, resource optimization and digital monitoring to keep things lean. We're not retrofitting sustainability later; it's built into the design.

**Beyond Egypt, Interloop also operates large-scale facilities in Pakistan, Sri Lanka and China. How are you standardizing and scaling sustainable practices across your global operations?**

**F.S.:** We see transparent action as the most powerful lever to scale sustainability: Responsible governance from top to bottom, verified data and full value chain accountability.



**“THE COMPANIES THAT EMBED TRANSPARENCY AND EFFICIENCY IN HOW THEY OPERATE WON’T JUST ENDURE, THEY’LL LEAD.”**

— **FARYAL SADIQ**, chief marketing officer, Interloop Limited

We follow a single sustainability framework across all regions with shared reporting systems. Our board oversees ESG, and every site tracks performance the same way.

Pakistan is our blueprint. What works there—like LEED-certified infrastructure, digital efficiency tracking and full material traceability—we scale everywhere else.

Our Higg FEM scores stay well above global industry averages, too. Pakistan leads with scores as high as 84, while our Sri Lanka facility's 73 shows strong environmental performance paired with community impact, earning Nike's Collaborate to Accelerate award and setting a model for regional best practice.

**Earlier this year, Interloop Regen Kapas earned Regenagri certification from Control Union. How does achieving this certification represent a step forward for Interloop?**

**F.S.:** Regen Kapas is our regenerative cotton program in Pakistan covering 6,000 acres across 25 villages in southern Punjab, working with 1,000

farmers. We're seeing results: Soil organic matter has increased, water use has dropped and farmers' costs are lower. That's the point, regenerative systems have to work economically for farmers, or they don't scale.

For Interloop, Regen Kapas connects our sustainability commitments back to the people and land at the start of our value chain while providing verified, traceable fiber.

It's now gaining traction; Hugo Boss is onboarding Regen Kapas to their supplier base. Certification is crucial, but brand adoption is what enables real scale. We'll be working together to layer their sourcing standards on top of Regenagri, making the model even stronger.

**What other initiatives is Interloop taking to help brands and retailers become more sustainable?**

**F.S.:** Since 2020, we've reduced emissions by 21 percent, transitioned nearly half our energy use to renewables and diverted 90 percent of waste from landfills.

We position ourselves as a systems partner to brands—

making sustainability practical and provable at the product level. Our DPP pilot with Socklab and GS1 Netherlands is a prime example. With a QR code, you get verified data on origin, materials, processes and end-of-life guidance—transparency that regulators and shoppers increasingly expect.

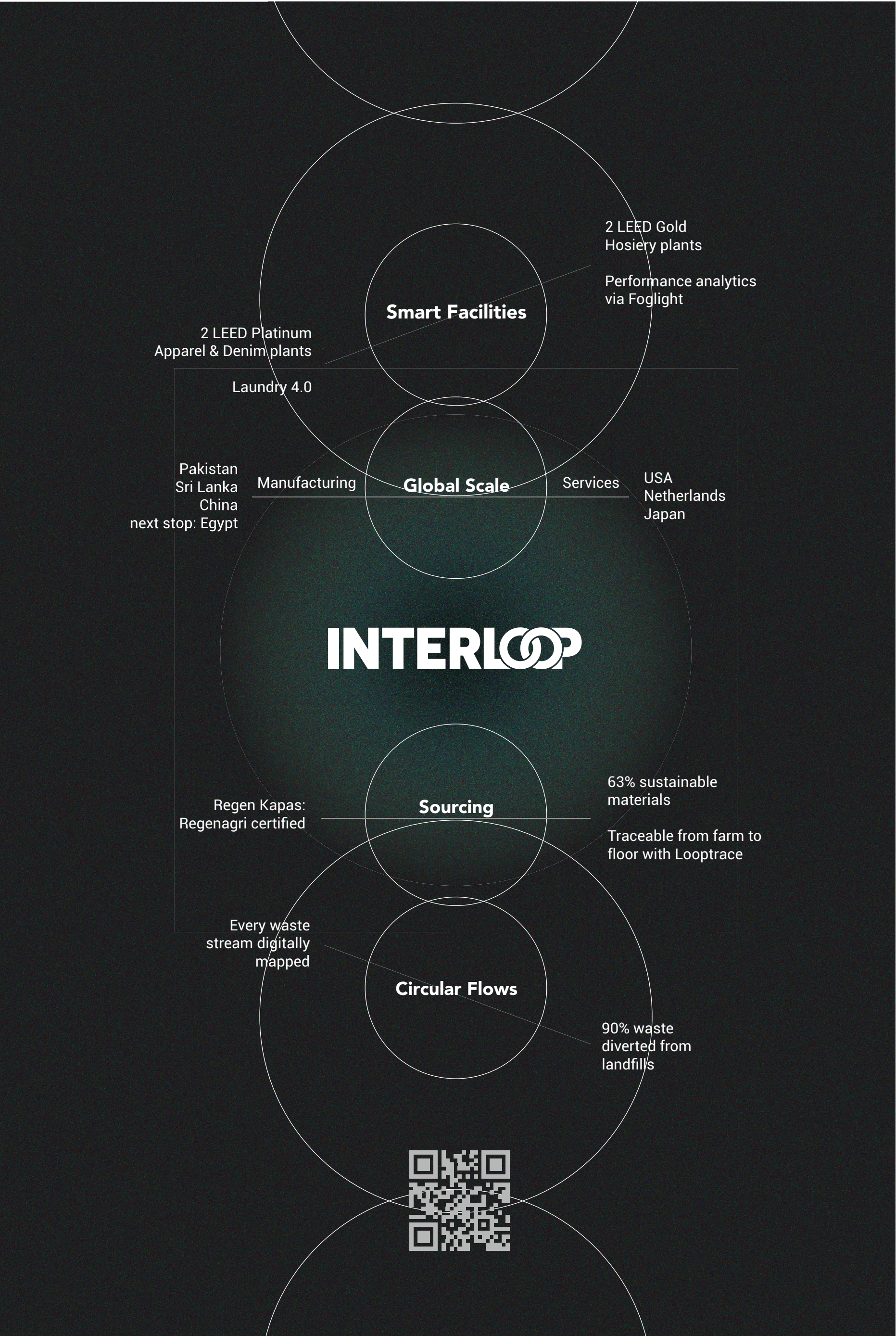
Low impact materials are another focus: Yulex, a plant-based elastane alternative; Interloop Regen Kapas; and recycled yarn spun from our own sock waste, which now supplies half our hosiery production. The next step is closing the loop entirely—feeding each customer's waste back into their own new products.

Virtual sampling lets us collaborate faster and cut waste. We partner with brands like Adidas to advance 3D workflows and scale these capabilities across the value chain.

**What is your advice for brands and supply chain partners?**

**F.S.:** Invest in traceability first. You can't improve what you can't measure. Build long-term partnerships, shared goals make adaptation faster. And treat sustainability as a system. Regulations will keep evolving, but if your operations are designed around data and accountability, compliance becomes the outcome, not the driver.

The companies that embed transparency and efficiency in how they operate won't just endure, they'll lead. ■







# IS THE FASHION INDUSTRY IN A ‘SUSTAINABILITY RETREAT?’

Whether companies are rolling back their climate commitments has been a bone of contention for an industry beset with economic and geopolitical turbulence.

by Jasmin Malik Chua



◀ Nike jettisoned nearly one-third of its sustainability workforce in 2024.

CASCADE’S ANNUAL MEETING kicked off in Hong Kong last month with an exuberant drum performance and a slight but significant disagreement that mirrored broader tensions rippling across the global apparel industry. ✨ “I know that morale is low,” said Isabelle Kumar, the former Euronews evening news anchor who was pitching in as the two-day conference’s emcee. “I’ve been speaking to people around the corridors, speaking to organizers, and it feels that the work that was hard achieved is unraveling, being unpicked before our very eyes as a new political reality begins to take hold. Some of you may be feeling a bit disempowered, demoralized, disillusioned, even possibly a bit desperate.” ✨ She spread her hands, as if in defeat: “I’ve got so many letter ‘D’s.” ✨ When Harsh Saini, the multi-stakeholder organization’s interim CEO, joined Kumar on stage a short moment later, she gently questioned if another “D,” derailing, was undermining progress to fight climate change or promote decent work—two central issues around which the meeting was organized.

“I’m not so sure that’s happening, because we have the most dedicated people and the most passionate people working in the area,” Saini said. “So the work is going to continue. Companies are still continuing to do what they need to do. They understand that having sustainability at their core is what will make their businesses more resilient. Risk management becomes better and, inevitably, at some point, the profit comes in as well.”

Whether the fashion industry is or isn’t in a so-called “sustainability retreat,” as Tufts University professor Ken Pucker first described a year ago, has been a bone of contention. What some have characterized as a much-needed reset to adapt to turbulent economic and geopolitical realities is being interpreted by others as a feckless rollback of once-vaunted, if perhaps overly confident, greenhouse gas ambitions.

Asos and Crocs sounded early alarms when they each called time on their existing climate commitments in 2023. Nike jettisoned nearly one-third of its sustainability workforce in 2024, then parted ways with its top sustainability executive in September. Walmart whiffed its Scope 1 and 3 objectives in 2024. Over the summer, Under Armour said it would pursue neither the revalidation of its 2030 emissions reduction targets, nor the approval of what was formerly its 2050 net-zero roadmap, by the Science-Based Targets initiative, a standards body. Last week, Ralph Lauren dropped its 2040 net-zero pledge, opting instead for rolling five-year emissions reduction “milestones” with a near-term focus on its 2030 goals.

Even among clothing and footwear purveyors that remain unshaken in their promises, nearly two-thirds are procrastinating on their decarbonization schedules, a recent McKinsey study found. Another 40 percent have seen their emissions increase since they made those commitments.

But while “everything seems to be going backwards,” nothing could be further from the truth, Paul Polman, co-founder and co-chair of The Fashion Pact, a CEO-led sustainable fashion initiative, said at an event during Climate Week NYC last month.

“We’re sitting very, very close to major tipping points on the energy transition,” the former Unilever CEO said. “You can shout, ‘Drill, baby drill,’ but nothing is being drilled in the U.S. even now. You can say, ‘Keep coal mines open,’ but they cost a billion dollars a week to keep open. Forget the morality, the future of humanity, your children, your grandchildren, all the things that make us cry. The economics are now overwhelmingly in favor of green energy. And that’s why people are doing it.”

Polman said that the challenge today isn’t so much proving a business case but “how fast we can go” because “we need to do twice as fast versus what we do now in the next four or five years, and then three times as fast thereafter, to be totally decarbonized.” Doing so requires collective courage from businesses that are willing to “stick their





necks out” for both the future of humanity and the future of their companies.

“The leaders of the companies you represent know that impact without profit is not a going strategy,” he told the audience. “They understand that profit without sustainability won’t give you a longer-lasting strategy. But they struggle with, ‘How do we do it?’ They struggle with the ambition of being a little bit more courageous than they otherwise would. Too many in your industry and in other industries play what I call ‘not to lose’ versus ‘playing to win’.”

Some companies are indeed pulling back because of headwinds from multiple fronts, resulting in the dissolution of coalitions and the erosion of activity required for systems-wide progress, according to an analysis published last month in the Harvard Business Review. At the same time, the authors argue, data demonstrates that “at the individual level,” 85 percent of companies are still holding fast to their sustainability commitments or even accelerated them, albeit “under the radar.”

What is becoming apparent, the study said, is a significant pattern of “greenhushing,” where “strategic silence and symbolic adjustments intentionally conceal value creation and operational resilience.” But though what’s “really” shifting is visibility, not underlying strategy, if greenhushing becomes the foremost corporate strategy, “today’s quiet retreats may become a systemic failure to act,” it said.

“Without visible leadership, the shared momentum needed to transform systems could face paralysis,” wrote consultants Neil Hawkins, president of Michigan Sustainability Associates, and Kelly Cooper, founding partner of Sustainable Innovation Group.



**WITHOUT VISIBLE LEADERSHIP, THE SHARED MOMENTUM NEEDED TO TRANSFORM SYSTEMS COULD FACE PARALYSIS.”** — Neil Hawkins, Michigan Sustainability Associates and Kelly Cooper, Sustainable Innovation Group

“If the market mistakes strategic silence for surrender, business risks losing the urgency and collective influence required to scale climate-aligned transformation.”

To which Pucker, posting on LinkedIn, responded with, “More of the same will lead to more of the same.”

#### GOING ON THE DOWN-LOW

Joseph Phi, CEO of Hong Kong-based supply chain management company Li & Fung, spoke out against greenhushing during his keynote speech at the Cascal annual meeting. Companies do this, he said, because they’re looking to dodge the mounting consumer and regulatory backlash to exaggerated sustainability claims, a phenomenon known as greenwashing.

“That backlash is now preventing companies from reporting their climate targets and initiatives,” he said. “Basically, they’re saying, ‘I don’t want to publish my targets and my actions because people may criticize me personally.’ I’m very much against this. It undermines transparency, it slows down collective learning and it reduces industry peer pressure, which is very important for learning, for improvement.”

So the question hanging over everyone right now, Phi said, is whether sustainability has become unsustainable.

▲ Crocs’ Croslite transforms plant-based waste into shoes.

“Given all the macroeconomic headwinds, given all the geopolitical challenges that we all face, it’s so easy to say that, well, sustainability should take a back seat; let’s hit the pause button,” he said. “But the truth is that we are reaching very fast planetary boundaries, and the planetary reality says that if we retreat today, it’s like committing economic suicide. Essentially, we’re mortgaging our future.”

A 2025 CEO survey by the United Nations Global Compact and Accenture, also published in September, said that the majority (88 percent) of CEOs report that the business case for sustainability is stronger than it was five years ago. But only half of the leaders surveyed feel comfortable communicating their progress publicly, resulting in many companies shrinking away from making public sustainability statements amid intensifying political and public klieg lights.

The findings come at a crucial time: 2024 is the first calendar year to overshoot the Paris Agreement’s 1.5-degree Celsius threshold. The report also offers one of the most comprehensive longitudinal views of CEO sentiment on sustainability, just as the UN Global Compact enters its 25th year, the organizations said.

With only 35 percent of the United Nations’ Sustainable Development Goal targets on track, however, “decisive action” is needed from business leaders, the report said. Governments, too, must step up. Some 92 percent of the CEOs polled believe that it’s only through strong global governance and policy alignment that the global sustainability agenda can be achieved.

“CEOs’ actions in the next few years will determine whether the private sector moves toward sustainable growth or defaults to scattered progress,” the UN Global Compact and Accenture said. “The path of coordinated acceleration would see CEOs uniting around five key priorities—collaborating on regulation, harnessing consumer demand, expanding access to technology, upskilling for the future and leading with credibility and purpose—to ignite momentum, build trust and align public and private sectors for systemic impact.”

The alternative, on the other hand? “Fragmented adoption, wherein uneven regulations, misaligned incentives and inequitable access to capital and technology stall momentum for a generation.”

“We are all here today because we know what’s at stake, and we all firmly and truly believe that inaction is a choice that we can no longer afford in today’s world where volatility is the norm, and disruption probably is the only constant,” Suren Fernando, CEO of MAS Holdings, one of South Asia’s largest apparel and textile manufacturers, said at the Cascal event.

The industry doesn’t need more perfect strategies, he said. Rather, it must choose progress over perfection, look to leaders who are willing to think in the short and long term, and make decisions grounded in clarity and values.

“In the end, what has guided us isn’t a single innovation or strategy,” Fernando said. “It’s been a steady commitment to doing the work year on year. Through disruption, uncertainty and change, we’ve taken a long-term view on talent, on partnerships and on sustainability, and we’ve tried to act always with discipline and intent. The values we prioritize in moments of pressure will determine not just how we navigate the next few years, but what kind of industry we will build for the decades to come.” 🌱

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# CAN CREATIVITY RAISE AWARENESS?

Are augmented reality activations and “fashion zombies” what it takes to drive consumer awareness—and action?

by Jasmin Malik Chua



ON A SUNNY SEPTEMBER afternoon in Manhattan, a couple of days before the start of Climate Week NYC, a Sourcing Journal reporter went hunting for a mound of textile waste. ✨ This was trickier than she thought. The Flatiron Building turned out to be a bust, with nary an article of discarded clothing in sight, no matter how much she paced around in front of Shake Shack at Madison Square Park. The Empire State Building likewise refused to cooperate, though she was finally able to, with some effort, drag a cone of castoffs on a smartphone camera screen and lay it on top of Herald Towers on the next block.

Mission semi-accomplished. The point of Reju’s augmented reality “experience” was to allow anyone with a cellular—and the ability to pinpoint the somewhat fiddly activation spot—to superimpose the amount of textile waste the world generates in a second, minute, hour or day on an iconic New York City landmark, making it click in the user’s mind the scale of the fashion industry’s impact. “We’re constantly asking ourselves: how do we make the invisible visible?” said Patrik Frisk, who helms the Paris-based textile-to-textile recycling firm. “Textile waste is one of the biggest problems of our time, yet most people never see it. We wanted to bring that reality to Climate Week, when the world is

paying attention to climate solutions and so New York City made sense. It’s also where culture, fashion and innovation meet. By projecting the scale of textile waste against landmarks like the Empire State and the Flatiron Buildings, we’re making an abstract problem impossible to ignore.” Reju isn’t the first company that has sought to wake New Yorkers up to a problem that’s literally mounting, if somewhat out of sight, thousands of miles away. A little over a year ago, during New York Fashion Week, The Or Foundation in Ghana sent a “fashion zombie” to prowl fashion shows and stalk the Brooklyn Bridge and Times Square, confronting people head-on with the

consequences of overconsumption. Over in Europe this past March, the Stop Fast Fashion Coalition, which comprises organizations like Fashion Revolution France and Zero Waste France, dumped several tons of textile waste behind the French Senate building to demand that lawmakers include in their agenda a 2024 bill aimed at curbing the rampant overproduction of clothing. Still, one question remains: Do stunts like these work? “Yes, I think people need to be able to visualize it to be able to understand the issue,” said Clémence Faure, the environmental justice nonprofit’s EU engagement and “Speak Volumes” campaign lead. “But then

again, I think they also need some context behind it, because otherwise it’s very easy to misunderstand the situation or not have enough information to be able to act on it. It’s a first way of interacting with consumers, for sure, but then education is important.” Concerns about oversimplifying what is a very tangible and growing problem are why The Or Foundation started “Speak Volumes,” an initiative that calls on fashion purveyors to publicly declare their production volumes. “Otherwise it’s hard to realize that every purchase has an incredibly big impact on the environment, whether it’s in the resource extraction phase or the production side of things, or even the collection and sorting and preparation for reuse, and then the final life of the garments that is happening in places like Ghana,” Faure said. “So it’s very important that people understand all these steps, and it’s important for brands, too, because they don’t always know all about them.” Of the unprecedented 1,000 events on Climate Week NYC’s calendar, however, textile pollution was a blip on the agenda. The nonprofit recycling center Fabscrap organized a textile sorting event at its warehouse, followed by a happy hour. Oxfam America, the poverty-alleviating charity, moderated a Secondhand September discussion that explored the “real ripple effects of secondhand fashion.” Remake, a fashion advocacy group, hosted a Wear Your Values Weekend at Parsons The New School that included a panel on reselling, remaking and recycling. And “action-oriented” nonprofit Accelerating Circularity, together with business and technology consultancy Accenture, held a roundtable on the vertiginous 61st floor of One Manhattan West about a recent report on how to unlock textile-to-textile recycling in the United States. “New York Climate Week was the perfect time to launch the ‘Rags to Revenue’ report,” said Karla Magruder, founder and president of Accelerating Circularity. “While we had a great turnout from companies in the industry, from collectors and sorters to mainstream brands, the textile industry still has a lot of work to do to transition to circular textile-to-textile systems. That’s why we launched the report. It’s designed to help the industry understand what still needs to be done.” But so, too, do consumers, even though awareness is spreading across young generations. While Secondhand September has taken off in the United Kingdom, it’s still in its nascent stages across the pond, said Katrina Caspelich, chief marketing officer at Remake. And even though many people are “already living the spirit of it through clothing swaps, thrifting or pausing new purchases, but without calling it that,” skipping new clothing purchases during peak back-to-school shopping season is a “big shift.” Even so, Caspelich would like to see textile pollution take up as much space metaphorically as it does physically. Every year, 92 million metric tons of textile waste are produced globally, yet less than 1 percent goes on to become new clothing. The majority is landfilled, incinerated or shipped to poorer countries like Chile, Ghana and Kenya that lack the infrastructure to cope with what they can’t resell—something that is becoming an increasingly significant amount with the rise and continued acceleration of fast fashion. Reju’s virtual piles of unwearables are veritable mountain ranges elsewhere.

“**TEXTILE WASTE IS ONE OF THE FASHION INDUSTRY’S BIGGEST BLIND SPOTS, AND IT RARELY TAKES CENTER STAGE.**”  
—Katrina Caspelich, Remake

“Textile waste is one of the fashion industry’s biggest blind spots, and it rarely takes center stage at New York Fashion Week or Climate Week,” Caspelich said. “The conversations often focus on innovation and future solutions, which are important, but we can’t ignore the mountains of clothing waste piling up right now. Until waste is acknowledged alongside climate impacts and labor rights, we’re only telling half the story.” As Obroni Wawu October, which was inspired by Secondhand September, kicks off in the Ghanaian capital of Accra—“obroni wawu” is Akan for “dead white men’s clothes”—The Or Foundation is enlisting consumers in its pursuit of production numbers. The expanded campaign, dubbed “Show Love, Speak Volumes,” is rolling out in three phases. The first is encouraging people, with the help of the Kantamanto community, to show their garments love through repair and renewal. The second is to show love to Kantamanto and those like it by writing letters to secondhand markets, charity shops and other places involved in the challenging work of recirculating garments. “And then the last phase of the campaign is going to be show love to your backyard,” she said. “The idea is to connect the dots for the public that now know the positive and negative effects of the secondhand trade and connect them to what is happening around them. Because obviously, when we show what is happening in Accra, if you’ve never been to Ghana, it can be hard to relate to. But you can connect it to what you know, like volunteering at your charity shop or organizing a swap event with your friends.” For Frisk, the AR experience is a reminder that change is possible, and that everyone, from brands to consumers, has a role to play. It’s also why Reju is building a circular textile system to transform the textile industry through “collaboration at scale.” “Bringing the issue to life in a way that’s immersive and shareable helps bridge that disconnect,” he said. “But the point isn’t to make people feel guilty. It’s to empower them. If consumers see the impact, they can also see their part in demanding better materials, supporting circular solutions and making choices that keep textiles out of landfills. Awareness is the first step to change.” That said, the key is “what happens after the stunt,” Caspelich said. Creative activations, particularly ones that shock or disquiet, can make the problem of textile waste visible in a city where overconsumption is often glamorized. “Do we connect the dots for consumers about overproduction, about how our waste ends up in places like Accra or the Atacama Desert? Do we give them ways to take action, whether that’s taking Remake’s No New Clothes challenge, buying less, swapping or holding brands accountable?” she said. “At Remake, we see these moments as powerful entry points, but they have to be paired with education and advocacy if we really want to shift behavior and the industry.” 🌱





# PLANT-BASED AND POLISHED

Spring/Summer 2027 denim weaves together bold new ideas and refined innovations.

by Angela Velasquez



**TEXTILE INNOVATION** took the spotlight at Kingpins Amsterdam last month as mills and technology firms unveiled next-gen solutions redefining how denim is produced, finished and perceived. Three key themes emerged from the event: the growing role of digital printing, the resurgence of linen as a sustainable fiber, and ongoing refinement of textile technologies to enhance sustainability without sacrificing style. ✨ Here’s how these trends are shaping the direction of Spring/Summer 2027 collections.

## DIGITAL DENIM

Lower minimums, speed to market and waterless processes make digital printing an attractive proposal to manufacturers trying to maintain their sustainable goals in an unpredictable market. However, it’s the technology’s ability to unlock creativity and present to customers something brand new to lure them back to stores that is really spiking excitement.

At Kingpins Amsterdam, Stella Blu, a division of China-based Prosperity Textiles, leaned into the intrigue by keeping their digitally printed garments and accessories shrouded in garment bags. The Chinese mill is the only denim textile manufacturer with NTX’s CoolTrans Technology, a waterless textile coloration system that can color almost any textile material without heat and up to a 90 percent reduction in water usage.

The technology is one solution to achieve the trompe-l’oeil denim look Diesel and Rag & Bone have popularized in recent seasons. Panels of jeans are printed on both sides and then cut by laser for sewing. Brands can get as creative with it as they want with prints, spanning trompe l’oeil designs to basic blue jeans. Stella Blu is in the process of creating an LCA for the printed fabrics.

Los Angeles-based startup Lab Denim showcased its technology to digitally dye denim. The firm’s post-weave colorization system preserves the authentic look, feel

and durability of conventional denim while drastically reducing environmental impact.

Developed in Switzerland, Lab Denim utilizes a digital machine powered by proprietary software and a unique indigo replacement developed specifically for denim. A roll of white twill (or any non-synthetic white fabric) is fed into the machine, which uses Lab Denim’s eco-friendly inks and bio color enhancers to colorize the fabric.

The result is indigo-free denim that eliminates the need for water, harmful chemicals, and the labor-intensive treatments typically used in denim production. This new fabric behaves just like traditional indigo denim—it will age, fade and gain character with wear—but without the environmental toll.

Attendees described ArtMill’s digitally printed denim offering as “runway ready.” The Artistic Milliners-owned design studio emphasized how brands can adapt the printing technology to fit their price points. For example, big box stores can print poplin on one side, while more premium brands can opt for two-sided prints on 10 to 110z. denim to offer a more authentic denim look.

Additionally, interior garment manufacturer Copen United showed a new range of digital print options for pocketing, waistband and linings and Isko Luxury by PG, the Turkish mill’s ongoing collection with textile innovator Paolo Gnutti, presented digitally printed flocked fabrics.

◀ **Linen blends and shades of green are key trends for Orta’s S/S ‘27 collection.**

▶ **Lenzing worked with Advance Denim to develop Tencel HV100 fabrics.**

▼ **ArtMill mimics the look of herringbone denim through advanced digital printing.**



## LINEN LOVE

Mills are showing love to linen. The natural fiber is proving to be an important ingredient for Maritaş. The Turkish mill showed a series of linen-blended fabrics ranging with 10 to 70 percent linen content.

Advance Denim presented a line of denim made with up to 20 percent linen. The fabrics have broad appeal, though most denim brands are limited the fiber for capsule collections rather than core products.

Linen and linen-like fabrics are appealing to ArtMill’s broad cross-section of clients. To give big box retailers a price-friendly option, the firm presented 100 percent cotton fabrics that mimic linen’s slub pattern. A canvas made with linen is also available.

Orta showed black and indigo linen, and options with Tencel and stretch for extra comfort. Sebla Onder, Orta’s marketing and sustainability manager, noted how linen is casting a shadow over hemp, which began seeing momentum about five or six years ago. However, she added that both use no harmful chemicals or water in the fiber processing, making them attractive alternatives to customers.

## REFINED IDEAS

This fall Lenzing debuted HV100, a solution to texturize manmade lyocell so the fibers have a more natural cotton-like look in denim.

Whereas traditional Tencel fiber is uniform—same length, same size, same shape—HV100 fibers are cut various lengths. “Instead of making them all uniform, we make 50 percent of the bale 28 millimeters, like a carrier fiber, and remaining 50 percent is the variety of cut length 10 to 20 millimeters. You need some irregularity to show some character,” said Tuncay Kilickan, Lenzing’s head of global business development – denim.

With HV100, Kilickan said Lenzing has fixed four common issues denim manufacturers voiced about Tencel. “We’re not shiny anymore. We look like cotton. The indigo dye uptake is just like regular cotton. You don’t need to increase the recipe to get the same shade. And the wash down is just like cotton,” he said.

AGI Denim in Pakistan, Advance Denim in China, Textil Santanderina in Spain and Orta Anadolu in Turkey were the first global mills to develop denim fabrics with HV100 earlier this year. Since then, Lenzing has grown its network to 17 mills.

Examples of improving or expanding existing technologies were seen across the show. AGI Denim expanded its color range for Chip-Off, a pre-treatment that builds up the surface area around yarns to achieve sharper contrasts between highs and lows in abrasion.

Pakistani mill Siddiqsons introduced Cryo Black, a sulfur dye that reduces water consumption by up to 60 percent and is dyed at room temperature. The fabric is compatible with advanced low-impact finishing methods such as ozone and laser, meaning brands can eliminate potassium permanganate.

Artistic Milliners enhanced its Lounge Edit collection with Eastman Naia, a certified biodegradable and compostable cellulosic made with an optimized, low-impact manufacturing process. The fiber adds thermal regulation, moisture control and quick dry properties without adding bulk to textiles, making it ideal for spring and summer.

Mills also stepped up with solutions to achieve overdyed effects more efficiently. Arvind presented Eroded, a collection that mimics the effects of over dyeing through dual dyeing. Additionally, AGI Denim and Maritaş introduced fabrics with built-in tints. Rather than over dyeing black or indigo jeans, these developments automatically revealed tinted colors in the wash. 🌱





# LEGISLATIVE

CSRD and CSDDD face major rollbacks under a fast-tracked simplification package, igniting concern over what Europe's retreat



**HÉLÈNE BOHYN**

policy and advocacy manager  
**The Better Cotton Initiative (BCI)**

**T**he scariest day of October didn't fall on Halloween this year as the European Parliament approved amendments to reduce the scope of the EU's sustainability regulations.

The European Parliament's Legal Affairs (JURI) Committee voted to scale back the Corporate Sustainability Reporting Directive (CSRD) and the Corporate Sustainability Due Diligence Directive (CSDDD) on Oct. 13 as part of the Omnibus I simplification package.

Despite the JURI Committee's vote, the full European Parliament (otherwise known as MEPs) narrowly rejected the mandate to enter negotiations on the package just over a week later, sending the proposal back for further amendments on Oct. 22. A new vote is expected in November.

“Congratulations on the adoption of the 19th package of sanctions. This was good news,” European Parliament president Roberta Metsola said to MEPs the next day. “On a less positive note—yesterday’s vote on the CSRD and CSDDD sustainability omnibus showed that for a huge section of the European Parliament, this compromise simply did not go far enough. That even with the best attempt at bridging positions, it would not have made things better, simpler, easier. For some other sections, any change would have been too much.”

Warning against the impact of the Parliament's endorsement of these abridgments, Sourcing Journal connected with industry executives to weigh in on the realities of such curtailments. There commentary below:

“What is presented as ‘simplification’ is in truth a dangerous dilution of essential safeguards. The European Parliament’s endorsement of the changes significantly weakens legal pressure for corporate accountability and risks dismantling the transformative power of the CSRD and CSDDD—landmark frameworks built to protect human rights and the environment. We strongly urge the European Parliament to reconsider and call on businesses to resist the temptation to lower their standards.”

**“WHAT IS PRESENTED AS ‘SIMPLIFICATION’ IS IN TRUTH A DANGEROUS DILUTION OF ESSENTIAL SAFEGUARDS.”**

— **Hélène Bohyn**, Better Cotton Initiative (BCI)

**NICOLE RYCROFT**

founder and chief executive officer  
**Canopy**

**“E**urope just took a step backward at the very moment forests, communities and our climate need us to step up. Weakening due diligence and slowing sustainability reporting hands a free pass to the worst actors and fails to recognize the leadership of responsible brands.

Transforming supply chains—especially those tied to paper packaging and man-made cellulosic textiles such as viscose—is both doable and inevitable. Hundreds of companies are already mapping suppliers, keeping high-carbon forests out of their supply, and starting to shift to low-carbon, next-generation materials as they start to build supply chain resilience.

We urge lawmakers to protect the integrity of CSDDD and CSRD and to support the business leaders who are doing the right thing. The world's forests—and business resiliency—can't afford delay.



**ELISABETH VON  
REITZENSTEIN**

senior director of public affairs  
**Cascale**

**W**hen the CSRD and CSDDD were first proposed, they represented an important move to strengthen human rights, environmental due diligence and corporate reporting across the value chain.

However, the recent deal is set to significantly reduce the scope of both directives, with plans to cut reporting obligations by 25 percent for large private firms and 35 percent for small- and medium-sized enterprises (SMEs).

In the case of the CSRD, it's now set to apply to all businesses with 1,000 employees or more—and with annual revenues of at least 450 million euros (roughly \$522 million). The revenue requirement is a new, last-minute addition intended to reduce the number of businesses that need to report.

Weakening key aspects of both pieces of legislation not only sends the wrong message to the industry, but it also risks undoing work and resources organizations have already invested in additional reporting requirements.

Through multistakeholder collaboration and thorough risk assessments, the consumer goods industry must prepare for upcoming legislation in advance. We need all businesses to step up to their responsibility, not just those affected by the Omnibus package. Climate action and achieving decent work should always and forever remain a non-negotiable.

**ISABELLE MAURIZI**

director general  
**European Branded Clothing Association  
[EBCA]**

**T**he European Branded Clothing Association (EBCA) reaffirms its support for the EU's sustainability objectives and calls for a pragmatic, risk-based approach to due diligence under the revision of the CSDDD.

The textile and apparel sector operates through complex, global supply chains. While EBCA members do not own their manufacturing facilities, they have developed robust systems to improve the environmental and social impact of their activities. A risk-based due diligence framework—aligned with OECD and UN Guiding Principles—is essential to maintaining resilience against human rights and environmental risks, and to ensuring competitiveness.

EBCA respectfully calls on policymakers to safeguard this internationally recognized approach and terminology, in order to ensure clarity and consistency in implementation. This framework protects workers and communities while preventing undue burdens on smaller suppliers.

EBCA also expresses concern regarding the proposed SME cap, which restricts the data larger companies may request from SMEs. This risks undermining transparency and accountability across supply chains. We recommend allowing companies under the scope of CSDDD to request appropriate information based on their risk assessments, enabling them to meet their obligations effectively. 🇪🇺





# U.S. HAMPERS AGREEMENT TO DECARBONIZE MARITIME SHIPPING

Officials said that the United States could take action against countries that supported the measure, including initiating antitrust probes and imposing additional port fees.  
by Jasmin Malik Chua

MEMBER COUNTRIES OF THE UNITED NATIONS shipping agency bowed to U.S. pressure by deciding to postpone by a year a critical vote over a global measure requiring cargo ships to restrict their greenhouse gas emissions or pay what amounts to a pollution tax. ✨ The London-based International Maritime Organization's motion to delay the approval of the so-called Net-Zero Framework, which was provisionally greenlit in April with the support of American allies such as Britain, Canada, the European Union and Japan, plus that of the World Shipping Council, narrowly passed by a simple majority of 57 countries, with 49 opposing and the remaining absent or abstaining. ✨ The Intersessional Working Group on the Reduction on Greenhouse Gas Emissions from Ships, which is scheduled to meet this week, will stay the course and work on the guidelines for implementing the NZF. Maritime shipping accounts for roughly 3 percent of human-caused global greenhouse gas emissions.

The move came a day after President Donald Trump expressed his "outrage" over the deal on his Truth Social platform, saying that the United States "would NOT stand for this Global Green New Scam Tax on Shipping, and will not adhere to it in any way, shape or form."

Writing in a joint statement last week, Secretary of State Marco Rubio, Energy Secretary Chris Wright and Transportation Secretary Sean Duffy said that the United States was mulling possible action against countries that backed the measure, including initiating antitrust probes and sanctions, imposing additional port fees and other penalties on their ships, and perhaps even blocking vessels registered in those countries from U.S. ports.

They said that the agreement would unduly or unfairly burden the United States, harm the interests of the American people and raise global shipping costs by as much as 10 percent. While the United States walked out of April's deliberations over a draft agreement, Russia and Saudi Arabia joined in its dissent at the time by voting against the measure. All three pressed for the framework's delayed adoption.

"The United States will be moving to levy these remedies against nations that sponsor this European-led neocolonial export of global climate regulations," the officials wrote. "We will fight hard to protect our economic interests by imposing costs on countries if they support the NZF. Our fellow IMO members should be on notice."

In a terse response two days later, the European Commission said that it was in favor of efforts to decarbonize the shipping sector and level the global playing field.

UN spokesperson Stéphane Dujarric told reporters in New York that Secretary-General António Guterres saw Friday's decision as a "missed opportunity for member states to place the shipping sector on a clear, credible path toward net-zero emissions."

It was only in September that Trump, a longtime fossil fuel proponent who made "drill, baby, drill" a frequent campaign slogan, told world leaders at the United Nations General Assembly that climate change was the "greatest con job ever perpetrated on the world."

"All of these predictions made by the United Nations and many others, often for bad reasons, were wrong," he said. "They were made by stupid people that have cost their countries fortunes and given those same countries no

**“WE KNOW PROGRESS IS POSSIBLE WHEN GOVERNMENTS ACT TOGETHER; NOW THEY HAVE THE OPPORTUNITY TO PROVE IT.”**

—Natacha Stamatiou, Environmental Defense Fund

chance for success. If you don't get away from this green scam, your country is going to fail."

Earlier this month, the White House nixed \$7.6 billion in grants that underpinned hundreds of clean energy projects in more than a dozen states—all of which voted for the Democratic opponent, Kamala Harris, in last year's presidential election.

"President Trump promised to protect taxpayer dollars and expand America's supply of affordable, reliable, and secure energy," Wright had said. "Today's cancellations deliver on that commitment."

The NZF would require cargo ships weighing 5,000 gross tonnage or more to pay a fee if their carbon emissions exceed a certain mandatory limit, thereby incentivizing cleaner fuels and technologies. Collected revenue would be used to reward low-emissions ships, mitigate negative impacts on vulnerable member states and support innovation and research in developing countries. If the measure had gone through, it would have marked the first time a legally binding global carbon price was levied on any sector.

A missed opportunity aside, the delay is also a "setback" that will derail innovation, deepen inequities and render more difficult and expensive the transition to clean shipping, said Natacha Stamatiou, global shipping and IMO delegation lead at the nonprofit Environmental Defense Fund.

"We know progress is possible when governments act together; now they have the opportunity to prove it," she said in a statement. "We cannot afford to wait any longer. It is vital that member states return to the negotiating table and deliver a measure that reflects wise ambition—one that delivers a just and effective energy transition to secure a cleaner, more equitable future for generations to come."

In his closing remarks on Friday, IMO Secretary-General Arsenio Dominguez urged member states to work together and arrive at an accord over the next year.

"Even though you have differences of opinion, you all spoke in support of the work of this organization," he said. "There are no winners and losers in this session. Let us take this moment to learn from it and come back ready to negotiate and take the next steps needed to meet the goals you all agreed to in the 2023 GHG strategy." 🗳️



# WASTE NOT, WANT NOT: HOW BIRLA CELLULOSE IS FUELING FASHION'S CIRCULAR FUTURE

**F**

**FASHION'S NATURE** is cyclical as trends rise and fall on a loop, but as the industry tries to lower its impact, it must focus on creating circular paths for garments and textiles. Taking up this mantle, India-based viscose staple fiber maker Birla Cellulose is investing in innovations designed to reduce waste and keep materials in circulation longer, including recycling solutions and closed-loop fiber production.

Here, Manmohan Singh, chief marketing officer at Birla Cellulose, discusses the company's latest fiber introduction, why biodegradability matters and how Birla is helping customers prep for regulatory requirements.

**SOURCING JOURNAL: What were Birla's top sustainable wins over the last year?**

**Manmohan Singh:** We earned the dark green shirt rating in Canopy's Hot Button Report for the sixth consecutive year in 2025, marking a streak of excellence in responsible manufacturing. We also strengthened our circularity agenda through Liva Reviva, which integrates mechanically recycled textile waste, and introduced Liva Reviva M alongside a strategic partnership with Circ, bringing advanced textile-to-textile recycling technology into our ecosystem. Complementing these initiatives, the 110 tons per annum (TPA) lyocell project at our Harihar plant is currently under development, with phase one (55 TPA) expected by mid-2027. Produced through a closed-loop process, lyocell represents the next step in sustainable fiber innovation for Birla Cellulose.

**How is Liva Reviva M a game changer for circularity?**

**M.S.:** Liva Reviva M marks a major advancement in circular fiber innovation. It enables post-consumer textile waste



**“STRICTER GLOBAL REGULATIONS AROUND TRACEABILITY, DEFORESTATION AND CIRCULARITY ARE INCREASINGLY SHAPING HOW BRANDS SOURCE THEIR RAW MATERIALS.”**

— **MANMOHAN SINGH**, chief marketing officer at Birla Cellulose

to be mechanically processed into feedstock and blended with lyocell fiber, creating a high-quality circular material without the need for additional chemical processing. To make this possible, Birla Cellulose developed new infrastructure dedicated to mechanical recycling, ensuring consistent fiber quality and scalability. This innovation reduces dependence on virgin pulp, diverts textile waste from landfills and brings the industry closer to realizing true textile-to-textile circularity at commercial scale.

**Within circularity, biodegradability is sometimes overlooked. Why is this an important piece of the circular puzzle?**

**M.S.:** Biodegradability ensures that materials safely return to nature when they reach the end of their use. Made from natural cellulose, Birla Cellulose's fibers are fully biodegradable in soil, freshwater and marine environments, leaving no harmful residues. Independent studies have shown that these fibers can biodegrade within six to eight weeks under appropriate conditions. This natural decomposition helps reduce long-term environmental impact and supports the broader vision of a circular textile economy where every material has a responsible end-of-life pathway.

**Natural materials aren't always associated with workwear fabrics. How is Birla infusing its wood-based fibers with performance properties?**

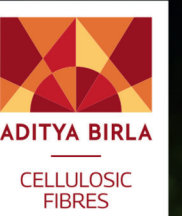
**M.S.:** Birla Cellulose has been working to extend the potential of its fibers into high-performance areas such as protective clothing through the development of SaFR, an inherently flame-retardant viscose fiber. SaFR integrates its flame-retardant properties directly into the fiber structure, avoiding the need for external chemical treatments. This not only ensures consistent performance over time but also reduces environmental impact and enhances wearer comfort. The fiber retains viscose's natural softness, breathability and moisture management—providing protection without sacrificing comfort. Manufactured in facilities that follow stringent environmental standards, SaFR reflects Birla Cellulose's effort to combine safety and sustainability in practical, everyday applications.

**How is legislation influencing your customers' sourcing decisions?**

**M.S.:** Stricter global regulations around traceability, deforestation and circularity are increasingly

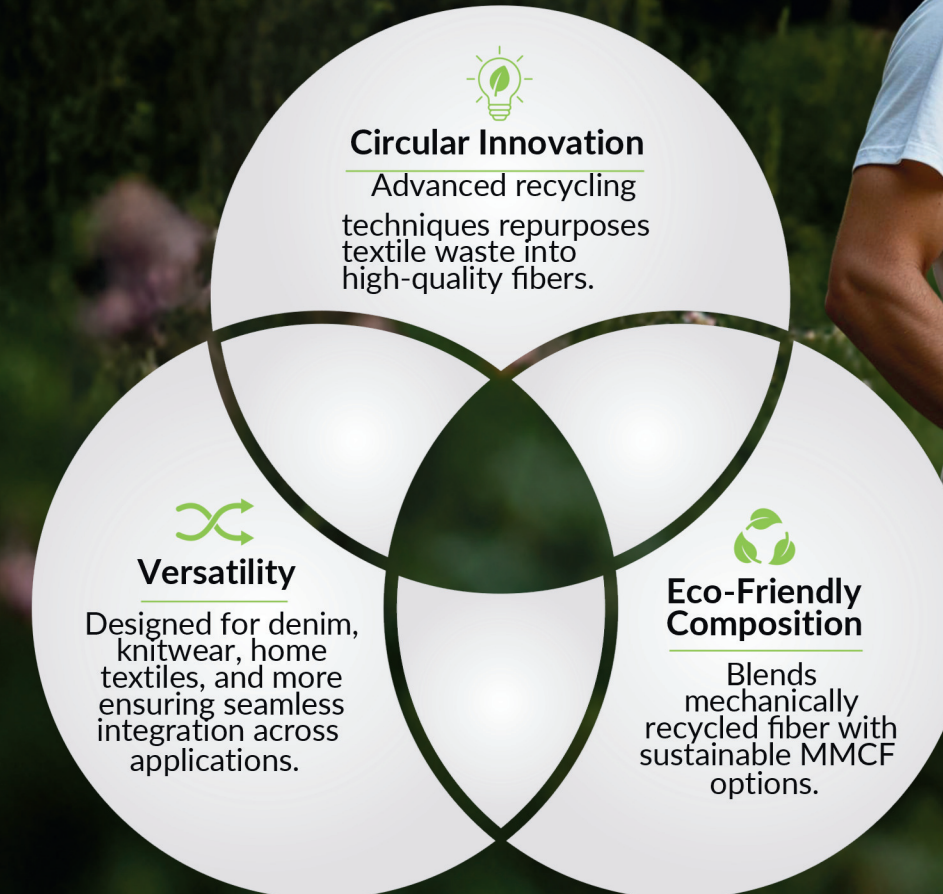
shaping how brands source raw materials. Customers today not only want sustainable fibers but also transparent supply chains backed by credible data. We support this shift through GreenTrack, a blockchain-based platform created by Birla Cellulose that enables end-to-end traceability from forest to fashion. Our Livaeco range, made from wood sourced from Forest Stewardship Council (FSC)-certified forests, embodies this approach by combining environmental responsibility with product transparency.

Beyond traceability, Birla Cellulose works closely with organizations like Canopy Planet, Cascale, Zero Discharge of Hazardous Chemicals (ZDHC), Changing Markets Foundation, Textile Exchange and World Business Council for Sustainable Development (WBCSD), amongst others, to continually learn and apply the best practices within its global operations and across its value chain. ■



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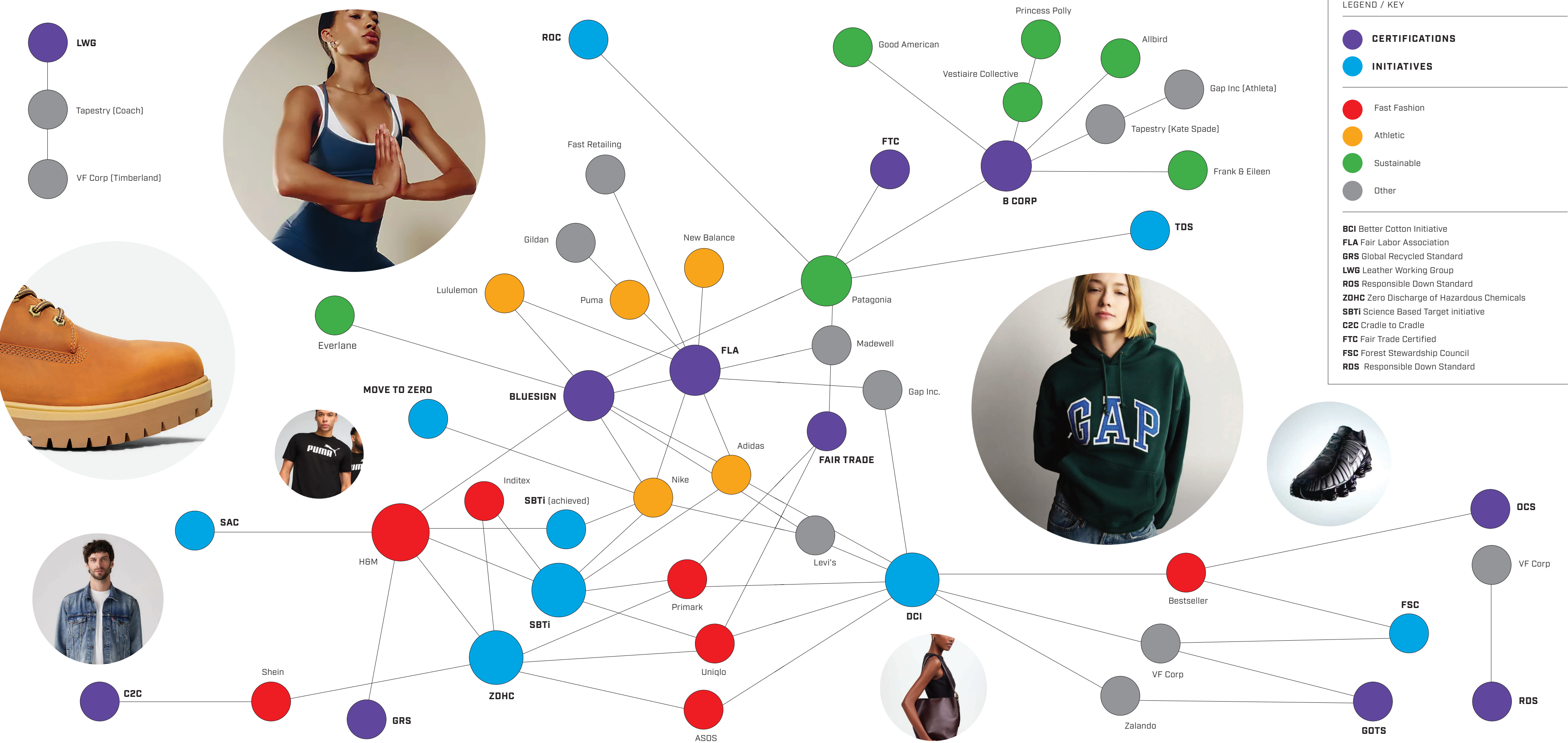
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# WEAVING A WEB

This visualization shows how fashion companies cluster around sustainability claims. **by Alexandra Harrell**



**SUSTAINABILITY LANGUAGE** has become a default setting in fashion. What remains harder to see is who attached themselves to third-party standards and when. Here, a graphic maps more than two decades of brand participation in major environmental benchmarking and social programs, from labor oversight to chemical protocols to climate-target frameworks.

Each circle represents a brand or standards body; each line reflects a real, documented affiliation. The closer the circles, the more shared commitments; the more lines, the deeper the brand’s footprint across industry initiatives.

A few themes stand out. Patagonia, Nike and Adidas were early movers, joining labor and social-compliance frameworks like the Fair Labor Association in the mid-2000s. Around 2011-2012, chemical-management systems, such as Bluesign and ZDHC, pulled more players into the fold—reflective of mounting regulatory pressures. By 2016, climate commitments became the dominant gravity point, shifting from a leadership move to an industry baseline, with most players signing the Science Based Targets initiative in 2019.

Recent years show a spike in B Corp certifications and climate-target announcements alongside a noticeable uptick in lower-threshold affiliations that telegraph intent. On one hand, participation widened as competitive and regulatory pressure increased. On the other, brand positioning became inseparable from ESG performance narratives.

Connectivity mirrors power dynamics. Patagonia remains the most interlinked brand, spanning labor, chemical, environmental and governance programs. H&M and Adidas follow, though with uneven levels of

third-party verification. Fast-fashion players diverge: H&M appears across nearly every major framework; Shein registers only minimal activity despite its global scale. Younger sustainability-focused labels sit toward the perimeter, not due to disinterest but because certification cycles are slow and resource-intensive.

The programs themselves form a hierarchy. Chemical and labor systems (Bluesign, Fair Labor Association) remain central enforcement touchpoints. Climate frameworks, particularly SBTi, now anchor a second center of gravity. Regenerative- and

circularity-oriented schemes appear at the edges.

It’s also a reminder of fragmentation. Holdings companies appear multiple times, reflecting subsidiary-level certification rather than group-wide adoption. Labels such as “aligned,” “member” and “certified” are not interchangeable. However, their coexistence helps illustrate the variation gap in rigor across sustainability claims.

Final translation: Don’t confuse this for a scorecard or a performance assessment; instead, think of it as a snapshot of who has chosen to participate in shared

frameworks and when that participation was made public. In an industry where marketing often outpaces implementation, the gaps matter as much as the clusters. A web under tension reveals where credibility accumulates and where it stalls. The lines here, simply, trace how an industry is trying—even signaling—to make its way toward accountability. 🌐

*This visualization represents a subset of industry activity. Data was compiled from public sources; category definitions and relationship bins appear in the legend.*





Sustainability stalwarts Eileen Fisher, Reformation and Everlane join with the Apparel Impact Institute to foster change from the ground up.  
**by Jasmin Malik Chua**

# THE POWER OF 3

**EVERLEENFORMATION? REFERLANEFISHER?** ✨ Susan Scow, sustainability impact specialist at Eileen Fisher, doesn’t have a snappy portmanteau for the three-way tie-up between Everlane, Reformation and her brand, but she’s open to suggestions. ✨ While collaboration is far from an off-piste phenomenon in fashion—think Skims x Nike, Levi’s x Barbour and Uniqlo x Marimekko, to name a few—this one is. For one thing, it isn’t a marketing grab to try and sell more clothing. For another, it takes place far further upstream in the supply chain than retailers are wont to link arms. The partnership could even supply a blueprint for a new way of working to help the industry hit its climate goals when money and resources are under strain from a turbulent and unpredictable market.

It was the Apparel Impact Institute, a San Francisco-headquartered nonprofit that seeks to identify, fund and scale proven solutions that can decarbonize apparel and footwear manufacturing, that first suggested in 2024 that the three companies tag-team on a handful of strategic suppliers they had in common. In effect co-sponsoring six emissions-reduction programs involving target-setting and low-hanging-fruit tweaks like automating shut-offs to conserve energy and insulating hot water pipes and steam valves.

The idea, Scow said, was to reduce initiative fatigue, both for the suppliers and the brands wrestling with a burgeoning number of regulatory and reporting requirements, not to mention mounting public scrutiny over what they’re doing to combat global warming. Factories are regularly inundated with buyer requests to make their processes more energy efficient by changing light bulbs, upgrading outdated machinery or installing solar panels, all of which comes with a hefty initial monetary outlay. By pooling together their leverage and access to capital, and applying them in a streamlined manner, the brands hoped to alleviate some of those burdens in a way they hadn’t been able to before.

“If we were not collaborating with other brands, we would not be able to access these deeper tiers of the supply chain and make the business case for investing in their decarbonization,” she said. “Without this, I’m not even sure how much we’d be able to engage with Tiers 2 and 3.”

With Foshan Chicley Textile Co., a dyeing and finishing facility that works with mostly cotton, linen and man-made cellulosic fabrics at the heart of the Pearl River Delta in southern China, Eileen Fisher, Everlane, Reformation have agreed to go a step further, by co-funding deeper decarbonization interventions with technical guidance from Aii and its partners, including Reset Carbon, a Hong Kong-based consultancy, and BluWin, a “high-impact” carbon solutions provider from the United Kingdom.

“I think that this is a really novel approach, not just to co-nominate these facilities in the first place, like in the in the assessment and the build-up of what the potential is, but taking this next step of coming together to co-invest in the real piece that’s very capital intensive,” said Katina Boutis, senior director of sustainability at sourcing at Everlane. “This is the way that we can actually have really meaningful, tangible, long-term changes. And we’ve certainly heard from suppliers about how tough the industry, especially right now. It takes a lot to get funding mechanisms at a supplier level to be able to transform or make this type of capital improvement.”

That fashion has fewer than five years to reach its Science Based Targets, coupled with ever-contracting budgets due to the continuing volatility of the goeconomic landscape, drove a high sense of urgency to put the industry’s talk about collective action into practice, said Andrés Bragagnin, Aii’s senior manager of strategic management.

▲ **The group hopes to make sustainable changes easier on manufacturers.**

“**THIS IS THE WAY THAT WE CAN ACTUALLY HAVE REALLY MEANINGFUL, TANGIBLE, LONG-TERM CHANGES.**”  
—Katina Boutis, Everlane

He didn’t have to look very far, however, to find a group of brands that shared the same abhorrence of green window dressing: Eileen Fisher has committed to reducing its Scope 1 and 2 emissions by 100 percent and its Scope 3 emissions by 25 percent by the end of the year; Everlane plans to lower its emission per product by 2030; and Reformation wants to be climate positive by 2025, removing more carbon from the atmosphere than it generates, and fully circular by 2030.

“We were completely flexible to how the brands wanted to approach this from a funding and engagement perspective,” he said. “Once we had a list of factories, we agreed on budgets, and then they provided the outreach to the facility, the buy-in, the commitment to the facility, and then everything is handed over to our programs team to enroll engineers, measure capacity and start the program calendar from assessing all the way to building the deliverables.”

If Scope 3 is where the overwhelming majority of a retailer’s emissions lie, it’s the material processing phase, or Tier 2, of its supply chain that remains the highest source of pollution at 55 percent of total greenhouse gases because of the tremendous energy and chemistry needed to transform fiber into a yarn or a finished fabric, according to Aii. This is followed by raw material extraction (Tier 4) at 21 percent, raw material processing (Tier 3) at 15 percent and finished goods assembly (Tier 1) at 9 percent.

But a brand’s influence, which is strongest at the cutting-and-sewing, or Tier 1, phase, waters down the further up the supply chain it goes. At wet-processing facilities, for instance, brands have no real ownership or influence aside from a volume-driven perspective.

“Before, we were only using the leverage and relationships that Reformation had as an individual brand,” said Carrie Freiman Parry, the It Girl label’s senior director of sustainability. “Now, we’re able to credibly say, ‘Hey it’s not only Reformation that is asking for this,’ and make a real case for why it’s needed at an industry level.”

For Victor Li, general manager at Foshan Chicley Textile Co., engaging with three brands at the same time is new territory. The three brands have slightly different emphases in their decarbonization strategies—he described Eileen Fisher with a laugh as being “extreme sustainable”—which makes it more time-consuming to arrive at a consensus. Having a single set of deliverables in this pre-competitive space, however, makes things easier to manage.

“If everyone’s asking for their own decarbonization project, I’ll work myself to death,” he said. “Some brands may want to do certain things first; others may want to do a little bit later.”

This “coming together” also places suppliers in the center, making them more likely to acquiesce to a decarbonization roadmap, Bragagnin said. Having key buyers align on their sustainability approaches, fundraising and engagement, he said, has been

a “huge one” that gets suppliers to buy in quicker than when presented with proposals from individual brands.

“There’s been a lot of fill in this questionnaire, fill in this other digital assessment, fill in this other tool,” he said. “So this has helped reduce that data fatigue and move at an accelerated pace.”

Staying clear of anti-trust concerns by setting up certain boundaries has been easy, as far as Scow is concerned. Nobody divulges what percentage of their volume a supplier might encompass, saying instead whether a factory is strategic for them or not. Everyone in the sustainability teams also has a degree of separation from the product development and design departments, which helps them sidestep potentially sensitive IP, such as products or fabrications. Perhaps one of the biggest hurdles? “Scheduling, literally,” she said. “It’s so hard; we all manage so many different things.”

“On the flip side, it helps to have someone pick up the slack,” Scow added. “If I’m overwhelmed and exhausted and working on something completely over here in this other corner of my work, especially related to human rights, then the ladies from Reformation and Everlane often step in and say, ‘Hey, we dropped the ball collectively. Let’s get something on the calendar.’”

Parry said that broader industry challenges, such as supply chain and sourcing needs, along with team bandwidth, are all things they have to navigate. Identifying potential future opportunities and partners, too, is something that requires effort because not everyone is a Reformation or an Eileen Fisher or an Everlane. By allowing engagement to be brand-led, Aii is also free to do what it’s good at—technical implementation—rather than spending time “working with each brand in a silo and acting as a go-between,” she said.

“We’d love to invite more brands to participate; at some point, we’ll exhaust our list of shared suppliers,” Parry said. “We’ll need more brands to join the collaboration so that we can continue these streamlined decarbonization projects across different supply chains.”

And it’s not only the three brands that will benefit. All the retailers who buy from the suppliers their collaboration covers will get a boost as well. It may sound counterintuitive to help out a rival at your own cost, but finding opportunities to create much wider social and environmental impacts “fortifies and strengthens our industry,” particularly during lean times, Boutis said.

“We’ll be able to quantify within our own product carbon footprints, but it will also be a much more meaningful ripple effect across the rest of the industry,” she said. “I keep reminding myself and anybody that I talk to about this that we all work in a shared supply chain in one way or another, and I think that is what’s driving this work—and what’s most important. So hopefully this is a highly replicable thing, and if we can do it, I think anyone can do it.” 🌱



# WHY VERIFIED DATA IS THE MISSING LINK IN SUPPLY CHAIN TRACEABILITY

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**ONGOING AND UPCOMING** regulations, along with increasingly complex supply chains, are driving fashion companies to verify material origins to ensure compliance, substantiate claims and maintain credibility in the market. Oritain, a global leader in origin verification, combines forensic and data science, using a product's unique chemical fingerprint to verify its origin with high precision. Oritain empowers brands to back up sustainability claims with verified data—a critical differentiator as regulations like the EU Deforestation Regulation (EUDR) and digital product passport (DPP) mandates come into effect.

Here, Ben Tomkins, vice president of retail sales at Oritain, discusses the company's traceability expansion into leather, findings from its new "Readiness Report: The Future of Fashion Traceability—Sustainability and Supply Chains in 2026 and Beyond" and what's next for brands working to close the gap between awareness and action.

**SOURCING JOURNAL:**  
**What are some of Oritain's latest sustainable developments?**

**Ben Tomkins:** We've expanded our services to leather, a material heavily impacted by regulations like the EUDR. Our trusted proprietary methodology—already established across apparel, food and agriculture—now enables forensic origin verification for leather from key regions like Europe, Africa and South America.

We offer a distinguished data set and the capability to verify raw and finished hides at various stages throughout the production process to give brands and tanneries the insights they need to make meaningful changes, meet regulatory obligations and protect their reputation.



**What are some of the key findings from Oritain's survey report?**

**B.T.:** The results revealed a clear gap between what companies know they need to do, what they say they're doing and what they actually are doing. Companies claim to have multi-tier visibility and understand the reputational risks involved, yet less than half are verifying the data they're relying on. This "verification paradox" shows how easy it is to confuse visibility with verified data. Many companies believe their systems are strong because they have digital maps and supplier data, but when you look closer, much of that information is still based on declarations that haven't been validated. That's where the real exposure sits.

At the same time, there's a lot to be optimistic about. In fact, 61 percent of respondents said traceability will be critical to their business in the next three to five years, which tells us that intent is there. The challenge is turning that awareness into action. When companies start verifying what they are told, they move from merely managing risk to actually strengthening the way they trade. That's where the next stage of progress will come from.

**"WHEN COMPANIES START VERIFYING WHAT THEY ARE TOLD, THEY MOVE FROM MERELY MANAGING RISK TO ACTUALLY STRENGTHENING THE WAY THEY TRADE."**

— BEN TOMKINS, vice president of retail sales, Oritain

**What do you think are the main factors preventing companies from turning awareness into action?**

**B.T.:** The biggest barriers are cost, complexity and scale. For many brands, traceability sits alongside tariffs and trade issues that already stretch resources thin. In a lot of cases, one person is juggling procurement, sustainability and compliance at once, so verification ends up waiting until there's a problem.

Then there's the structure of the supply chain itself. Once you move past tier one, visibility drops quickly and you're left exposed to risks of non-compliance, reputational damage and trade disruptions that far outweigh the upfront traceability costs. Oritain provides visibility to the parts of the supply chain that are hardest to reach and easiest to overlook. If you're using mapping and artificial intelligence (AI) tools, layer them with verification solutions so that the data is continuously checked

against a trusted source. If you do not have these tools in place, start by identifying the key data points in your supply chain and implementing processes to collect and verify them.

**How has the current sustainability landscape shaped Oritain's priorities and goals for 2026?**

**B.T.:** We're seeing regulators invest heavily in their own isotopic testing capabilities, which tells you that verification is not just a "brand exercise" anymore. It's becoming an enforcement tool. The United States Customs and Border Protection (CBP), for example, now has its own isotopic testing labs in Savannah, Long Beach and Newark, which shows how serious the government is about stopping non-compliant materials coming into the U.S. market. For Oritain, the focus going into 2026 is on helping brands and manufacturers match that level of readiness. ■



**READINESS REPORT**

# The Future of Fashion Traceability



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# SOLE SEARCHING

According to CommunityMade, “sustainability probably has fallen a little lower on the priority list” in the wake of tariff turmoil.

by Kate Nishimura



2025 HASN’T BEEN A NORMAL YEAR for the industry, or for sustainable initiatives. Discourse has been all but overtaken by geopolitics and the economy, with many in the sector wondering how to keep their businesses afloat, much less champion social and environmental advancement. In recent years, sustainability has gone from a “nice to have” to a “must-have,” and now, it’s boomeranged back to an “if we can.”

Sourcing Journal caught up with the husband-and-wife team, Sean Scott and Shannon Scott, at the helm of L.A.-based footwear manufacturer CommunityMade, to talk about how these shifts are impacting the onshoring and nearshoring movements and brands’ appetite for sustainable production.

Founded in 2017, the company focuses on small-batch production using high-quality and bio-based materials. As its name would suggest, CommunityMade has become a nucleus for a growing network of producers looking to join forces in providing an alternative to the status quo of offshore sourcing:

overproduction, cheap, low-quality wares, and a supply chain that has become impossibly disconnected from its end market.

“For CommunityMade, I think we tend to focus more on the root causes rather than the quick fixes,” Sean Scott, the company’s CEO, told Sourcing Journal, referring to the issues at the heart of the fashion industry’s issues with waste. “We reduce, reuse, recycle—and that’s in order of priority. We build for longevity and durability, making the best use of materials, and then we actually execute the repairs.”

Located in the heart of Downtown near the Arts District, the small factory has made an outsized name for itself in less than a decade with some of the biggest brands in the game. The Scotts, both veterans of the shoe industry and household name brands like Toms and Asics, have the experience to back up the expertise they’ve been doling out over the past eight years. Much of it centers on a singular theme: There’s a better way.

After witnessing (and ultimately being driven away by) the sheer volume of waste created

by the industry and the harm it leaves in its wake, the Scotts are dead-set on creating a new American supply chain that allows for closer-to-home production in smaller volumes. Because of the agility of their operation and their proximity to the end market, they operate basically on demand. “A lot of it is about reduction of quantities; we’re not mass-producing, we hold minimum stock,” so there’s not much product languishing on shelves or relegated to discount piles, Shannon Scott said.

“At first, it felt awkward to be telling these established, experienced people how things should be done here and why they should be doing it this way,” Sean Scott said. “Shannon always talks about managing up, which is something she’s very strong at. Now, I think we’re pretty comfortable that they’re coming to us to help understand these things, since we’ve been steeped in this environment, this project, this movement, for eight years now.”

But there’s still often some cajoling and some cheerleading goes into discussions about moving toward more sustainable



operations, even if it’s just for a single shoe or a capsule collection.

“To give them credit, they’re interested in doing the right thing as well. Some of these are public companies and they have shareholders to answer to,” he added, but more recently, there’s an understanding of the upsides of doing business in L.A. “They’re coming to us for the sustainability advantages, the speed advantages.”

According to Shannon Scott, it’s often the out-of-the-box thinkers at brands that take the first step toward working with CommunityMade, which has in recent years been at the forefront of incorporating new circular and bio-based materials into its creations, from Natural Fiber Welding’s (NFW) Mirum to Blumaka’s regenerated midsole foams. “It’s usually their innovation teams that we work directly with, so they’re maybe less encumbered by the numbers,” she said. “We’re still managing that part of it—giving them all the tools to explain to their product teams why this is such a benefit for them.”

The untrodden road they’re traversing is riddled with obstacles, both when it comes to bringing brands into the fold and amassing a stable of, well, stable production partners. NFW, for example, made the decision to wind down operations on its production of alt-leather last month, which sends CommunityMade back to the drawing board for a vegan alternative to traditional leather.

“They had fantastic products, and we’ll keep looking for the next NFW,” Sean Scott said. While the Scotts extoll the virtues of animal hide leather—its durability and biodegradability among them—they are constantly on the hunt for new solutions that offer parallel performance with a smaller carbon footprint and broad consumer appeal.

“The latest we’re working on involves additive manufacturing and 3D-printing,” he added, initiatives they’re carrying out with local partners. Rather than die-cutting the foam needed to execute a midsole, leaving excess cuttings unused, the factory is working to “replace that wasteful foam midsole with something 3D-printed and tailored to the exact right size.”

Such projects and partnerships are key to the factory’s continued success, he believes. Evolution is, at this point, existential. “We don’t want CommunityMade to be traditional Made in America; if local manufacturing and domestic manufacturing is going to take off, it’s going to have to be innovative,” he added.

With Trump’s tariffs as a backdrop, though, the Scotts and their network are dealing with new and nuanced problems. While the duties were meant to drive companies to produce more in the U.S.—some have, and some are exploring—there’s also deep anxiety among consumers and the private sector about the state of the economy, and experimenting with new materials or moving production to a labor market where costs are exponentially higher (L.A. boasts one of the highest minimum wages in the country) isn’t a strategic imperative.



**WE DON’T WANT COMMUNITYMADE TO BE TRADITIONAL MADE IN AMERICA; IF LOCAL MANUFACTURING AND DOMESTIC MANUFACTURING IS GOING TO TAKE OFF, IT’S GOING TO HAVE TO BE INNOVATIVE.”**

—Sean Scott, CommunityMade



▲ Shannon Scott, president and co-founder, and Sean Scott, CEO and co-founder of CommunityMade.

◀ CommunityMade’s headquarters in Downtown L.A.

▼ Footwear crafted by CommunityMade.

“They’re more focused on a bottom line than ever before,” Shannon Scott said of the firms they’ve spoken to. “You have to imagine the tariff impact; that’s just dollars straight off the top of their margins. Does the brand have to raise prices to recoup that? Probably. So yes, sustainability has fallen a little lower on the priority list.”

It’s understandable that that’s where people’s energy is focused, she believes. “They are dealing with fires on the daily; they get it sorted and then something changes and they’re back to the drawing board again. It’s uncertainty that’s creating a lot of the chaos,” she added.

Watching sustainability departments being dismantled and the industry miss its environmental goals has been tough to stomach, though. Sean Scott said he’s also been disappointed about the lack of discussion about human rights and sustainability alongside the talk about tariffs.

“Most favored nation status and the easing of tariffs is supposed to be given to countries as a benefit of having good human rights and sustainability practices,” but over recent decades, trade policy has been used more to benefit the American economy than to support diplomacy and economic growth in developing nations, he believes. Now that Trump’s tariffs have arrived, the transactional nature of these dealings has increased tenfold.

With that situation as a backdrop, Shannon Scott said she believes that for many brands, sustainability has reverted back to “a nice to have—not mandatory.”

But pulling back is not a choice for CommunityMade. “Our whole business was set up to benefit people and planet over profit. Of course, profit has to be there; you don’t exist if you can’t keep the machines oiled,” she said. “It’s a little disheartening, but there are enough of us out there that are still very committed to figuring it out.” 🗳️





# AI’S GREEN DILEMMA

Can AI’s impact outweigh its potential for environmental damage? **by Meghan Hall**

**ARTIFICIAL INTELLIGENCE CONTINUES** to capture the attention of consumers and companies alike—but not all its airtime has been positive.

People have started to hone in on the potential negatives associated with AI’s expansion, both from the human perspective and the environmental. Fears about job loss have come to bear at some major companies, and research about AI’s potential to harm the environment has started to come forward, as well.

Some specific types of AI—for instance, generative AI—are more directly linked to environmental degradation than simple, legacy AI systems that companies have long leveraged. But the proliferation of generative AI paired with its potential for environmental damage entering the public consciousness simultaneously has left many wondering about whether AI’s benefits are meaningful enough to justify its continued training and usage at scale.

Much of that concern comes from how much water usage and energy consumption the continued training of AI models could require. Morgan Stanley research estimates that the need for these resources will only become greater.

“We now expect AI data centers to drive annual water consumption for cooling and electricity generation to approximately 1,068 billion liters by 2028 (our base case)—an increase of 11 times from 2024 estimates,” company analysts wrote in its On The Markets newsletter. “Our forecast is based on Morgan Stanley & Co. Research’s expectation that generative AI power will expand 8.5 times from 2024 by 2028.”

The report also noted that “more than half of the world’s top data center hubs are in areas already facing medium basin physical risk, or medium-level vulnerability, to threats from drought, flooding and declining water quality.”

Simultaneously, electricity consumption associated with data centers is on the rise. The International Energy Agency (IEA) released research in April that shows that, by 2030, the amount of electricity demand from data centers will double to approximately 945 terawatt-hours (TWh).

The IEA said that amount of electricity is “slightly more than the entire electricity of Japan today,” and further noted that AI is the root cause of the increase, since data centers’ rapid growth is heavily attributed to that kind of project. The U.S. alone is expected to account for about half of that demand.

Despite the potential environmental consequences associated with some rapidly growing subsets of AI, experts said that, on the aggregate, they remain interested in the ways that AI could aid sustainability outcomes for companies across the globe.

Tallat Hussain, partner in law firm Reed Smith’s energy and natural resources



group, considers herself an optimist about the technology’s future potential in many industries, fashion and apparel included.

Because the industry’s value chain is convoluted and involves a number of suppliers and transportation partners at any given moment, AI has room to create efficiencies in fashion’s production, supply chain, logistics, circularity and governance efforts, among other areas of the business.

“Where AI can contribute positively to that, I think, relatively outweighs the carbon footprint of it,” Hussain explained.

Meera Atreya, director of decarbonization science and EMEA advisory at Carbon Direct, said to get to that point, companies building and deploying AI will have to be thoughtful about their approaches.

“The same analytical power that drives hyper-personalized marketing can also be applied to optimize manufacturing, reduce waste and improve demand forecasting when deployed responsibly,” Atreya said. “AI tools are already being used to identify novel, lower-impact materials, enable textile recycling and streamline supply chains. These applications, if prioritized, could help fashion address its overproduction problem rather than exacerbate it.”

But she warned that exacerbating overproduction could be a very real side effect of rapidly evolving generative AI systems if not approached thoughtfully and with care for the environment.

Atreya particularly stressed fast fashion’s potential to use AI systems for financial gain while ignoring the environmental side effects,

noting that because generative AI can “conjure endless variations of garments and aspirational looks,” companies risk creating even more rapid consumer demand cycles, resulting in higher waste and overproduction.

Still, she said, if companies can avoid falling into that trap, AI has the power to positively impact the industry.

“The sustainability outcome of AI in fashion depends less on the technology itself and more on the choices brands make in deploying it. If acceleration of consumption becomes the default, the industry risks magnifying its biggest environmental liabilities. But if the sector channels AI’s capabilities into slowing production, designing responsibly and scaling

systems while matching the technology to pressing sustainability challenges. Part of that equation is understanding the need for less energy- and water-intensive solutions; generative AI requires more resources than legacy models, for instance.

Still, Van Gendt said she knows generative AI holds real promise for companies looking to move the needle on their sustainability strategies and said that, in many cases, it could serve as a stepping stone toward cutting carbon emissions in the fashion, apparel and retail industries.

“There definitely will be the need for generative AI solutions to solve some of the more complex sustainability problems, but



**THE SAME ANALYTICAL POWER THAT DRIVES HYPER-PERSONALIZED MARKETING CAN ALSO BE APPLIED TO OPTIMIZE MANUFACTURING, REDUCE WASTE AND IMPROVE DEMAND FORECASTING WHEN DEPLOYED RESPONSIBLY.”** —**Meera Atreya**, Carbon Direct

reduce the water usage, to reduce the carbon footprints, to retrofit them with more renewable power,” she said.

But experts agreed that a thorough understanding around how AI usage impacts their carbon emissions and water footprints may still be far off for many leaders and organizations.

“I don’t think that a lot of companies are considering the sustainability ramifications of using AI, whether in the fashion sector or otherwise,” Hussain said.

She further noted that while leaders might be warned of the carbon impacts associated with specific use cases for AI—like, for instance, the fact that Goldman Sachs researchers reported that a single ChatGPT query can demand 10 times the amount of electricity as a simple Google search—they often find it hard to contextualize that.

“AI, in so many ways, isn’t tangible, so you don’t think of the tangible cost of it, whereas the cost of electricity for a light is tangible; the environmental impact of the car you drive or how it is powered is tangible,” Hussain said.

Van Gendt said she has started to see companies show an interest in the emissions related to their technology activities, but said it can be difficult to report on that because of the distance between the end user and the company creating and operating the technology.

“Just like it’s hard to get emissions associated with growing cotton if you’re buying dyed cotton and then making a T-shirt from it, the same kind of transition happens when it comes to technology,” Van Gendt explained. “If you’re buying third-party software that you don’t have [a] direct relationship, then it either becomes surveying or asking your direct supplier if they can provide [emissions information].”

She expects tracking down emissions data associated with technology to ease over time.

Hussain said companies are not yet considering in a robust way the ways AI usage, particularly coming from third-party technology providers, could influence their Scope 3 emissions. From her perspective, it’s difficult for brands and retailers to measure that today. That’s partly because Scope 3 reporting is largely optional in many jurisdictions, but also because many AI systems are considered black boxes—that is to say, most users don’t understand how they were trained or how they arrive at conclusions presented to users.

“The more we understand the role of AI in a sector—say, the fashion sector—the better we’re able to determine what the metrics are for measuring Scope 3 emissions,” Hussain said. “You can’t just randomly start reporting on it. It’s very hard to separate it out...It can be done, but it requires significant data management in order to do it.”

circular solutions, it could become a powerful enabler of sustainability,” Atreya said.

Saskia Van Gendt, chief sustainability officer at supply chain management company Blue Yonder, concurred with Hussain’s assessment that AI has the potential to do more good than harm when it comes to sustainability—but noted that most companies are still figuring out how to make that go. She said fashion and apparel purveyors are already starting to reap the benefits of AI on their supply chains, material selections and at-large production.

For Van Gendt, it’s important that companies think about AI from the perspective of a “balance sheet.” That is to say, they need to acknowledge the water and energy use associated with AI

there’s also a lot of optimization that can come from the predictive analytics [models] and the smaller language models, and not always having large language models, which tends to be where a lot of the energy use is—in the development and the training of generative AI models that are based on large language models.”

Hussain said that, as companies continue to learn more about their AI usage, they’re likely to rally for more efficient data centers, powered by clean energy. With AI’s rapid proliferation and the climbing demand for data centers to support that growth, Hussain expects to see related energy and water reduction efforts on the rise—even if the aggregate demand for resources is increasing.

“We’re finding ways very quickly to



# FOAMS TO FINISHES: COTTON'S PERFORMANCE SUSTAINABILITY TECHNOLOGIES

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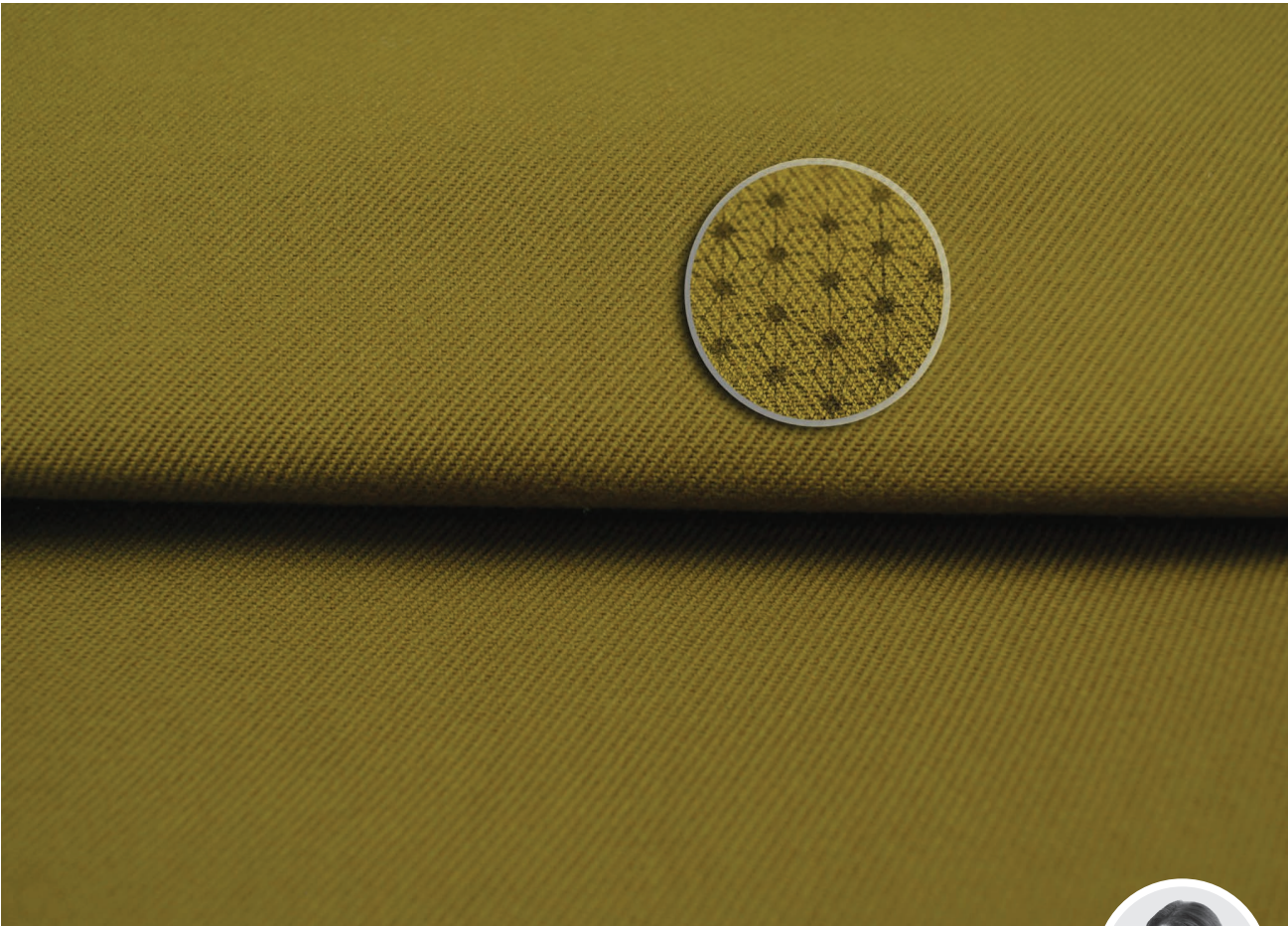
**COTTON ITSELF** is a natural material, but some of the conventional processing methods can have environmental impacts. This is changing, as innovators invest in solutions for lower impact dyeing, finishing and more.

Research and promotion organization Cotton Incorporated's in-house developments address both sustainability and performance. Leaning into cotton's natural benefits—including its breathability and durability—Cotton Incorporated's technologies imbue cotton garments with water resistance, moisture wicking and other functional perks. These solutions are open source, allowing the industry to freely adopt and brand them to fit their requirements.

Here, Mary Ann Ankeny, vice president, product development and implementation at Cotton Incorporated, discusses the innovations propelling sustainability in denim, the technologies helping cotton adapt for categories like activewear, and how the natural fiber supports circularity.

**SOURCING JOURNAL:** Dyeing is one of the most environmentally impactful parts of the apparel production process. What solutions can help reduce the water, energy and chemical footprint of coloring cotton textiles?

**Mary Ann Ankeny:** Dyeing and finishing technology companies like Jeanologia, Tonello and Care Applications use atomizing technology to dye cotton efficiently by spraying dyebath into garment machines, eliminating the need for salt, reducing dye waste and simplifying effluent treatment. Archroma and CHT have created reactive dyes with multiple bonding sites, which improves dye adherence to cotton, reduces dye usage and minimizes waste.



**Looking at denim specifically, what are the most exciting technologies you have seen to create jeans with less impact?**

**M.A.:** A new foam-based indigo dyeing technology, used by some denim manufacturers, applies indigo to cotton with nitrogen foam, saving significant amounts of water and chemistry, and eliminating several traditional indigo dyeing steps. Laser technology, used after dyeing, efficiently and precisely removes indigo from yarn surfaces to create styling effects, allowing for both full-fabric designs and detailed patterns without damaging the fabric.

**Much of today's activewear is made of synthetic materials, but what opportunities are there to create cotton-rich performance garb? What are the sustainable benefits of choosing cotton for this category?**

**M.A.:** Cotton is ideal for activewear, as it launders clean of workout odors and is soft, breathable and natural. Cotton Incorporated technologies like TransDRY™ and WICKING WINDOWS™ help cotton wick moisture away from your skin and improve comfort during exercise. These finishes do not affect cotton's biodegradability, making it a high-performing, environmentally friendly choice.

**"COTTON IS IDEAL FOR ACTIVEWEAR, AS IT LAUNDERS CLEAN OF WORKOUT ODORS AND IS SOFT, BREATHABLE AND NATURAL."**

— **MARY ANN ANKENY**, vice president, product development and implementation at Cotton Incorporated

**As you teased, cotton biodegrades since it is a natural material. What has research shown about how treatments like dyes and performance technologies impact this degradation process?**

**M.A.:** Research conducted at North Carolina State University and Cornell University shows that dyed and finished cotton biodegrades in both aquatic and soil environments. While certain finishes may slow this process slightly, even finished cotton decomposes at a rate comparable to that of an oak leaf.

**With upcoming extended producer responsibility (EPR) legislation, companies will be more responsible for their apparel after point of sale. How can cotton help them meet these requirements?**

**M.A.:** Cotton fiber can be mechanically recycled and blended with virgin cotton to produce new yarn or repurposed for products like mops and carpet underlay. Cotton Incorporated supports recycling through the Blue Jeans Go Green™ program, which collects denim from consumers, brands and retailers and converts it into housing insulation to help in community building efforts. Cotton Incorporated is also advancing a Cotton to Sugar process that breaks down waste cotton into its glucose building blocks for use in industries such as coatings, cosmetics and dyes. ■



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\* Source: CCI & Cotton Incorporated's 2023 Global Lifestyle Monitor Survey.





# AMBERCYCLE & REI LINK UP

REI isn't just America's largest specialty outdoor retailer. It's also a marketplace that stocks a sprawling number of brands besides its own. **by Jasmin Malik Chua**



**AMBERCYCLE'S THREE-YEAR** offtake agreement with REI Co-op to scale its textile-to-textile recycled polyester, announced last month, is a bigger deal than it appears to be, at least at first blush. ✨ The Los Angeles-based innovator has already thrown in its lot with plenty of names, from the household—Athleta, Arc'teryx, Ganni and Reformation—to those with more insider recognition—Far Eastern Group, MAS Holdings, Shinkong Synthetics and Hyosung—to drive adoption of its Cycora material, which is “molecularly regenerated” from textile waste, including castoff clothing. ✨ But REI isn't just America's largest specialty outdoor retailer, said Shay Sethi, CEO of Ambercycle. It's also a marketplace that stocks a sprawling number of brands besides its own. That gives it the ability to bring Ambercycle's take on “closing the loop” to a whole different echelon by “being a leader in the overall outdoor industry,” he said.

“

**WE'RE DEVELOPING THE INFRASTRUCTURE RIGHT NOW TO PRODUCE THESE CIRCULAR RAW MATERIALS TO GO INTO PRODUCTS. AND OUR INTENTION—OUR GOAL—IS TO MAKE IT EASY FOR CUSTOMERS TO INTERFACE WITH THIS CIRCULAR BUSINESS MODEL.”** —Shay Sethi, Ambercycle

what it describes as a “phased pathway” for Cycora's integration, another first for the innovator as it ramps up its volumes with its inaugural commercial-scale plant, the who, what, where and how much of which will be coming fairly soon. Until then, Ambercycle is able to pump out roughly 2 tons of Cycora per day at its demonstration facility in Wisconsin.

“What's really important is taking things one at a time, and working through all the challenges,” Sethi said. “We're developing the infrastructure right now to produce these circular raw materials to go into products. And our intention—our goal—is to make it easy for customers to interface with this circular business model. And so for us, it's really exciting to think of an REI as an aggregation point.”

What this means in practical terms is that Ambercycle and REI will begin with employing Cycora in what they consider “priority” performance categories, such as the retailer's own-brand Magma sleeping bag, XeroCloud rain jacket and the Road Tripper duffel bag, all of which are heavily reliant on what has become an almost 50-50 mix of conventional and bottle-to-textile recycled polyester.

The next step? Broader integration as the supply of Cycora builds and the companies work to recapture unwanted REI products to provide further grist for new ones. With more than 180 stores across 41 states, the nation's biggest consumer co-op has a clout that few stand-alone brands can muster in the take-back stakes, making it easier to accrue the types of quantities that Ambercycle needs.

And for REI, which has increased by fivefold the portion of recycled polyester that goes into its products since 2020, teaming up with Ambercycle to hike up the production of low-carbon materials is a way to deliver “real impact” for both its 25 million members and the broader industry.

“At REI, we see next-generation materials as critical to building a decarbonized future for outdoor gear,” Ajay Chadha, director of materials innovation at REI, said in a statement. “As we work toward our 2030 goals, REI is investing in science-driven solutions like textile-to-textile recycling to cut emissions at the feedstock level and reduce reliance on virgin polyester.”

Sethi said that one of the things that appealed to REI was the quality of some of the yarns Ambercycle had been experimenting with for applications such as technical outerwear and performance laminates. Things started clicking into place when Cycora was able to outmatch bottle-to-textile polyester.

“Bottle-to-textile does redirect a significant amount of material that would otherwise go to the landfill,” he said. “But if you think about the mechanical recycling process, you can't get that molecular-level purity. It's reliant on the quality of the inputs quite a bit. And a lot of the high-quality materials are going back into the bottle industry, and they're not being used for textile applications.”

By breaking down polyester to its base polymers, then purifying them in order to reassemble them back into fiber, Ambercycle

is able to make really thin yarns that are a challenge to whip up using discarded plastic bottles, Sethi said, citing feedback from the company's spinning partners.

“With the traditional mechanical process, you are also carrying through some part of the contamination in the feedstock,” he said. “If, for example, someone put motor oil in their water bottle, you have a problem. And so this has been a performance-level differentiation, we think, where the quality meets up with the brand messaging and the types of SKUs that our product goes into.”

By Sethi's count, Ambercycle has inked more than a dozen offtake agreements with both brands and fiber producers. The bifurcated approach isn't by accident, and each one is equally important, he said. On the one hand, the perception of working directly with a brand is “really good” for investors and external partners that are financing projects. On the other hand, hitting spec requires supply chain integration with “quality partners” that can do the behind-the-scenes grunt work of running a novel material through its paces. What it frequently comes down to, in the end, is size.

“In some of the cases, we've had to, if the brand is not large enough to do an offtake agreement directly, we can have a couple of brands partner together and buy from one supplier so we can aggregate demand through the supply chain,” Sethi said. “But at the end of the day, there has to be a full, cohesive supply chain for these products to move. So whether it's a brand offtake or a supply chain offtake, both chains need both a brand, a supplier and Ambercycle.”

That philosophy holds, too, for a considerable business like REI. Making headline commitments is one thing, but inserting a relatively unknown element into an established operation is quite another.

“It's really easy for an executive committee to say, ‘OK, we're going to buy this material; we're going to commit to buying in the future,’” Sethi said. “But then you have to go through the steps to integrate that into each product line.”

Alongside REI's ready-made ecosystem is a similarly substantial opportunity. Everyone loves REI, he said. Its “extremely high” brand value aside, innumerable brands also value its input and guidance on “what the future is going to be with their customer base.” And despite the market uncertainty that's proving to be hard to shake, Sethi added, the slowdown in new demand for circular materials has been accompanied by an increase in interest in those same materials.

“We feel pretty good that this is not a permanent reality and stability will find us all soon,” he said. “So we've been thinking, besides encouraging REI's use of circular materials, what other activations can we do with this huge retail footprint, so it goes beyond just we're selling material and they're just buying material? This is an opportunity for us to build a story for a lot more brands than just the REI. They have the ability to transform the narrative.” 🌱

“The Patagonias of the world sell through the REI retail distribution channel,” Sethi said. “So we're working through not only deploying into REI's own products, but how we can work together with REI to build more of an industry leadership sort of viewpoint where REI can help transition a lot more of their supply chain base for their retail suppliers.”

While the financial details of the offtake agreement are still under wraps, what Ambercycle can reveal is that it establishes





# DOES THE UFLPA STILL MAKE SENSE?

Meanwhile, the U.S. State Department said that China does not fully meet the minimum standards for eliminating human trafficking, nor is it making significant efforts to do so. **by Jasmine Malik Chua**

**THE EFFECTIVENESS** of the Uyghur Forced Labor Prevention Act is something that continues to dog the law three years after it went into force in June 2022.

In the time since, Customs and Border Protection has prevented nearly 10,500 shipments valued at nearly \$1 billion from entering the United States because of products or components that could have originated in China's contentious Xinjiang Uyghur Autonomous Region. Another 6,000 shipments, amounting to almost \$3 billion in apparel, textiles, automotive parts and electronics, were released back into the wild. Some American trade groups consider that a poor batting average that has resulted in more unjustified seizures than actual hits, making it, in turn, bad for business. Other experts have questioned whether the sanctions have influenced Beijing's behavior for the better.

But the UFLPA's implementation, more than reflecting an evolution in U.S. policymaking on forced labor, has created bigger ripples in the broader regulatory landscape, a recent report argued. Three years later, Canada and Mexico have outlawed goods made using forced labor, and the European Union's forced labor ban is poised to take effect in 2027. Other jurisdictions, too, are considering similar efforts of their own.

Writing for the Center for Strategic and International Studies, a bipartisan, nonprofit policy research organization, Laura Murphy and Charlotte Tate noted that a "somewhat common and startling misconception" about forced labor import bans is that a law that fails to immediately end the practice should be viewed as less of a success. Likewise, they said, observers will sometimes conclude that the UFLPA is a bust, either because "CBP is not catching every prohibited shipment or because the PRC government continues to oppress the Uyghur people."

"However, this places an unrealistic expectation on the impact that this law, and laws in general, can have in the short (and even long) term," they said. "We do not believe that laws prohibiting murder fail because we do not catch all of the murderers and we have not ended murder in our society. The criteria for impact must be more attuned to what the law was intended to do and what it can practically accomplish. When more informed and relevant metrics are used, it becomes clear that the impact of the UFLPA has been enormous."

To gauge the UFLPA's impact, Murphy and Tate looked at four key questions: Has the U.S. government been able to enforce the law? Has it changed corporate behavior and increased compliance? Has the UFLPA led to negative consequences for those who don't comply? And has it influenced the lives and livelihoods of those it was meant to impact? Even with the last, they said, there are signs that the pressure campaign is having a positive effect, even though it will take some time before the full impact of the UFLPA on Uyghurs and other persecuted minorities can be understood.

Murphy and Tate's assessment comes just as the State Department flagged China as one of 13 countries with a documented "policy or pattern" of human

trafficking, trafficking in government-funded programs, forced labor in government-affiliated medical services or other sectors, sexual slavery in government camps or the employment or recruitment of child soldiers.

China does not fully meet the minimum standards for eliminating human trafficking, nor is it making significant efforts to do so, putting it alongside so-called Tier 3 countries such as Cambodia, Myanmar, North Korea, Russia and Sudan, the Office to Monitor and Combat Trafficking in Persons, or TIP, wrote in the 2025 edition of its Trafficking in Persons Report.

In fact, it added, the Chinese Communist Party continues to exploit ethnic and religious minorities in the Xinjiang Uyghur Autonomous Region through a state-sanctioned policy of widespread forced labor, including through mass arbitrary detentions under the pretext of "vocational training" and "deradicalization."

**“WHEN MORE INFORMED AND RELEVANT METRICS ARE USED, IT BECOMES CLEAR THAT THE IMPACT OF THE UFLPA HAS BEEN ENORMOUS.”**

—Laura Murphy and Charlotte Tate,  
Center for Strategic and International Studies

The government has also maintained a practice of placing non-Han Chinese groups in vocational training and manufacturing jobs as part of "poverty alleviation" and "labor dispatch" schemes that featured "overt coercive elements," as well as sought to coerce the repatriation and internment of Uyghurs, Kazakhs, Kyrgyz and others living abroad through surveillance, harassment and threats that increased their vulnerability to the government's pattern or policy of forced labor, the TIP Office said.

"Like human trafficking in general, official complicity has become more 'invisible' as governments attempt to reframe it as something else," it said. "For example, governments have shifted from imposing detention center labor to creating so-called economic development or communal service opportunities and then requiring workers to participate in them."

Such is the case with China, which has defended its actions and policies as part of a legitimate economic development initiative, rather than a religious and cultural crackdown underpinned by a desire to "destroy" the essential elements of ethnic identity—one of the hallmarks of genocide—as leaked government documents have suggested.

In a statement responding to the report this week, Congressman John Moolenaar, the Michigan Republican who chairs the House Select Committee on the Chinese Communist Party, called China's "genocide" of ethnic and religious minorities in Xinjiang a "human trafficking nightmare."

"Last year, China made billions of dollars off of these heinous acts," he said. "That's why American companies must do more to comply with the UFLPA and make sure their supply chains are not using products made with forced labor."

Even so, the UFLPA—and the enforcement thereof— isn't perfect, Murphy and Tate wrote in their paper. Detentions this past April and May took a "notable downturn," for instance, with only a short return to average detentions in June. The following month, however, CBP only stopped 14 shipments, which they described as an "unprecedentedly low number" that "raises questions about the agency's current ability to prioritize enforcement of the law."

While the researchers cited speculation that once the Trump administration's tariff determinations are settled, enforcement will climb back up, they also expressed uncertainty in whether the law will be able to achieve its "greatest potential impact."

"Political will is critical to the continued effectiveness of the UFLPA," Murphy and Tate said. "Since the Trump administration took office again in January, we have not yet seen a commitment to wielding the UFLPA effectively. No new entities have been added to the list, and CBP's detentions have fallen. Without effective enforcement of the law, importers may determine that compliance is costlier than buying artificially cheap goods made in the XUAR."

Even so, there are few sanctions as strong and effective as the UFLPA, Murphy and Tate insisted. The Trump administration can deploy the law to punish unfair trade practices—and nip illegal transshipment in the bud—by directing the Forced Labor Enforcement Taskforce to expand the UFLPA Entity List of bad actors and adding more products made in whole or in part with Uyghur forced labor to the Labor Department's List of Goods Produced by Child Labor or Forced Labor. Instead of capitulating to the widespread federal funding cuts that have left many civil society organizations hanging by a thread, the State and Labor Departments should double down on supporting research on supply chains that could harbor Uyghur forced labor, they said.

"But the UFLPA does not depend on the U.S. government alone," the report added, pointing to a KPMG survey that found that 68 percent of companies were only reviewing their Tier 1 and/or Tier 2 suppliers. "While some companies have demonstrated leadership in reorienting supply chains and establishing traceability, many companies are not going far enough in their due diligence. This leaves the furthest reaches of their supply chains—where Uyghur forced labor is most likely to be a risk—in the dark, exposing companies to surprise detentions that they are not prepared to defend against."

Reticence to "truly conduct deep dives" into supply chains will put companies at serious risk of noncompliance and lower the chances that Uyghur forced labor will be eradicated from supply chains. If, in the coming months, CBP expands its enforcement and FLETF designates new sectors as high priorities for enforcement, there is a "grave risk that importers will still be surprised to learn that they are exposed to Uyghur forced labor," the researchers said.

"In the meantime, however, it is no small thing that U.S. consumers and companies can be more confident that they are not selling or purchasing goods that perpetuate the oppression inflicted upon the people of the XUAR, and that their government is using the economic levers it has at its disposal to try to influence the PRC to change its treatment of the Uyghur people," Murphy and Tate said, using an acronym for the People's Republic of China. "While import bans may not be an immediate antidote to repression, Uyghur community groups are clear in their demand that a blunt instrument is required to make state-imposed forced labor less profitable for the government to sustain and is essential to any hope that Uyghur workers will be treated equitably in the future." 🗳️



# SCALING A SUSTAINABILITY FIBER WITH A HOLISTIC APPROACH

**D**

**DESPITE THE CURRENT** economic environment, Eastman has not wavered its commitment to sustainability. In fact, its recent sustainability goals progress report outlines plans to strengthen Naia™ relevance as a sustainability fiber with a holistic approach in three key impact areas: mitigating climate change, mainstreaming circularity and caring for society.

This progress report shares the company's commitment to sustainability, circularity and its actions to promote a healthier industry.

Here, Claudia de Witte, marketing and sustainability director, textiles, Eastman, discusses the path forward.

**SOURCING JOURNAL:**  
**How do your brand partnerships help shape future product development?**

**Claudia de Witte:** Brand collaborations have been invaluable. Patagonia validated Naia™ Renew ES [60 percent certified recycled content] in performance apparel, demonstrating its durability and technical capability by launching the fiber as a demonstration in their men's workwear line. Then apparel brand Reformation launched the fiber at scale introducing Naia™ Renew ES in its bridal collection as a silk alternative with a lighter footprint. That critical market feedback is guiding our future R&D toward textile-waste feedstocks and scalable circular solutions.

Working with Debrand, we tested the feedstock specifications of our recycling technology by transforming 5,000 pounds of pre- and post-consumer apparel waste into new material. We processed another 8,000 pounds of unusable clothing with Patagonia, breaking those garments down to their

molecular building blocks to make new, recycled fibers. Through these programs we gained significant learnings and understanding of our recycling specifications and how we can help solve the textiles waste problem.

**How are you providing end-to-end traceability to drive trust with consumers and brands?**

**C.D.W:** Transparency is a nonnegotiable for Naia™—it's the foundation of trust. Through our partnership with TextileGenesis™, we've digitized every step of the Naia™ journey, from fiber to finished garment, using Fibercoins™ that mirror each physical transaction. To date, this platform has verified over 1.4 million garments made with Naia™ globally, giving brands confidence in their sustainability claims while helping them to prepare for upcoming regulatory requirements such as the EU's Ecodesign for Sustainable Products Regulation (ESPR) and Digital Product Passport (DPP). Our Naia™ fabric certification program managed by our own team adds another layer of assurance in transparency and traceability.

We are fully preparing to integrate DPPs across our portfolio by 2028, offering both physical and digital traceability options. Combined with our in-house Fabric Certification Program, FSC® and PEFC™ certified wood pulp sourcing, and GRS-certified recycled feedstocks, these efforts ensure accountability from forest floor to retail floor.

**How are you proactively engaging to protect forests and adjacent communities?**

**C.D.W:** Eastman has achieved Canopy's Dark Green Shirt recognition for the fourth consecutive year—a distinction that celebrates leadership in sustainable man-made cellulosic fiber production and a proven commitment to protecting ancient and endangered forests.

Our Naia™ team also partnered with SOS Mata Atlântica in Brazil planting nearly 75,000 native trees across high-diversity forest zones, and with The Longleaf Alliance in Florida to restore 60,000 longleaf pine seedlings at Torreya State Park. These projects strengthen ecosystems,



**“WE WILL MAINSTREAM CIRCULARITY BY MAKING RECYCLED-CONTENT FIBERS THE INDUSTRY STANDARD.”**

**—CLAUDIA DE WITTE**  
marketing and sustainability director, textiles, Eastman

protect water quality, and provide new habitats for local species. Additionally, we partner with global fashion institutions like FIT, Bunka and ESDI Barcelona to nurture sustainability-minded designers and future innovators.

**Looking ahead, what's next to scale Naia™ efforts?**

**C.D.W:** We will mainstream circularity by making recycled-content fibers the industry standard. Good news, we've achieved our 2023 goal of launching an increased recycled content fiber—Naia™ Renew ES containing 60 percent GRS-certified recycled material—at scale while enhancing performance and luxury feel. Our next milestones include launching a commercially

scaled Naia™ product with a minimum of 60 percent certified recycled content, using apparel waste. We also aim to run at least one take-back program annually to show what's possible with complex textile waste and push industry understanding and action.

The next chapter will be driven by collaboration, regulation readiness and innovation. As the industry prepares for ESPR, CSRD and DPP mandates, Naia™ is already compliance-ready through its verified traceability systems and strong data infrastructure. Our key enablers include advancing chemical recycling technologies, investing in circular R&D, and working with policymakers and NGOs to align on credible, science-based approaches like mass balance. ■

## Recycled and runway ready

Produced from 60% sustainably sourced wood pulp and 40% GRS certified\* waste materials, Naia™ Renew cellulosic fiber creates the possibility for uncompromising, sustainable style.

\*Via mass balance approach



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eastman-naia

Discover the beauty of Naia™ Renew at [naia.eastman.com](https://naia.eastman.com).







The Queen of Raw Stephanie Benedetto on rewriting the rules of waste before fashion burns what's left. **by Alexandra Harrell**

# FINDING LIFE IN DEADSTOCK

**THE FASHION INDUSTRY** has never quite agreed on what, exactly, qualifies as deadstock. It's a word that has been used for everything and nothing: overproduction, canceled fabric orders, unsold inventory, unsellable inventory, speculative runs, raw materials that, simply, aged out of trend. While everyone uses the word, no one uses it to mean the same thing. ✨ That's why Stephanie Benedetto decided to kill the word and bring it back to life—this time, with legal and financial consequences. ✨ Benedetto is a third-generation descendant of New York's garment industry, raised inside factories. Yet she began her career on Wall Street as a corporate attorney, taking companies public and private. ✨ "I always wanted to build something; it made zero sense to me that this waste existed as a cost center when it could be a profit driver instead," she said. Her sentiment, both capitalist and corrective, could be FoundStock's mission distilled. In Benedetto's framing, fashion's waste isn't just an environmental failure; it's a broken economic thesis. ✨ Benedetto launched Queen of Raw in 2018 as a B2B resale marketplace to test the behavioral reality: if scalable deadstock resale infrastructure existed, would brands participate? They did—fast. But then they wanted more—even faster. ✨ "As the marketplace grew globally, the biggest brands told us they needed automation, compliance, verification," Benedetto said. "They needed it to behave like a supply chain tool, not a one-off outlet."





### 3 Questions with The Queen of Raw

1

**Sustainability is one of those realms where business logic and emotional urgency collide. People can get defensive. It seems there's this sense of shame or fear of backsliding?**

FoundStock is intentionally built to incentivize progress, not punish imperfection. Everything here is meant to keep excess and deadstock in circulation longer at any viable level. We're not saying you must be perfect to begin; we're saying: Start. The public pilots next year will test how it functions across real-world scenarios. And the findings will be used to refine the standard, not gatekeep it. That's also why I'm excited about making the impact visible: quantifiable. For brands to lean in, the consumer engagement piece must matter. It has to prove it can reach the market and win business, not just moral approval. What I love about deadstock is that you can still sell more and stay in business and expand your reach but do it while reducing net new material creation. It's both/and, not either/or. That's the breakthrough.

2

**It's a win that feels obvious. Why do you think something this logically sound has taken so long to become formalized? Fashion has a long history of gatekeeping and burning off unsold stock—sometimes literally.**

Every business in the world—I don't care what business you're in—if you have a supply chain, you have some form of excess inventory; it's inherent in the process of making things. It's a structural byproduct of forecasting and manufacturing. So instead of shaming companies for the past—when no infrastructure existed—we're saying: Now that a logical, traceable, economic solution finally exists, there's no longer an excuse not to use it.

3

**A lot of people's knee-jerk reaction is moral—like, "how could they burn it?" Even from a business operations lens, it still feels shocking. Can you walk through the financial logic that used to justify it?**

It comes down to brutal math. If excess inventory isn't moving, it becomes extremely expensive to keep sitting there—you're paying for warehouse space, insurance, security, personnel, obsolescence risk, brand positioning risk. So, historically, destroying it was cheaper than holding or redistributing it. Not ethical. Not sustainable. But financially logical, at the time. What's changed is that today, those carrying costs have exploded and alternative infrastructure now exists. You can clear it as a traced, monetizable asset that unlocks margin instead of silently draining it. That number is not small. This is a \$2 trillion annual opportunity—globally—sitting frozen in supply chains right now. That isn't an abstract sustainability talking point. It's a liquidity unlock, a balance sheet opportunity. That's why, suddenly, everyone cares.



◀  
**To keep materials in circulation, the FoundStock Standard fills the industry gap with clear definitions and requirements.**

**“IF YOU HAD ASKED ME, WHEN I FIRST STARTED LOOKING AT THE ISSUES OF DEADSTOCK AND EXCESS INVENTORY, WHETHER I WOULD ACTUALLY BE WRITING A STANDARD ON IT, I WOULD HAVE BEEN LIKE, ‘HELL NO.’”** —Stephanie Benedetto

That push led directly to rebrand as Aloqia, her current company: a software infrastructure designed to operate deadstock as an auditable, tradable asset class, not a sustainability side project. But the deeper problem kept surfacing: no two brands on the platform defined “deadstock” the same way. There was no objective baseline—not legally, not financially, not environmentally.

“One of the biggest questions we got was, ‘How do you know it's truly excess inventory?’ And the real answer was—the industry didn't know,” she said. “There was no definition.”

That's when Benedetto went to Textile Exchange, asking for a reference point. Their response? She should write it.

So she did.

“Deadstock refers to unused, pre-consumer textile materials, such as yarns, fabric rolls, or raw goods, that were produced but never used, shipped, or sold,” FoundStock's website reads. “This also includes unfinished items that were developed for a specific purpose but were set aside or discarded before fulfilling that purpose and have been held in storage for at least 90 days.”

FoundStock is the industry-wide attempt to define deadstock and excess inventory with auditable criteria. It was written in collaboration with auditors and input from a confidential cross-section of global brands, luxury houses, sportswear giants, fast fashion players and their upstream suppliers. It's intentionally not a sustainability certification—instead, a financial and traceability standard.

“Once it's verified that something wasn't made yesterday and isn't being sold at a profit—that's when it becomes a financial asset,” Benedetto said. “We're talking about something that can be tracked, audited, traded, the same way other asset classes are. And when you quantify carbon, water, chemicals and waste avoided—alongside dollars saved or made—you unlock economic participation for supply chain partners, not just brands; they should be financially rewarded, not sidelined.”

Her logic is simple in its ruthlessness:

if it can be proven deadstock, it can be safely traded, monetized, traced and kept circulating—and, crucially, it spares brands from legal, reputational and logistical exposure, like adding economic infrastructure to moral infrastructure.

“We have said that from day one, that if it doesn't make economic sense, how the hell would anybody be able to adopt it? These are for-profit businesses. I'm a for-profit business. You can't expect scale without economic viability built in,” Benedetto said. “This isn't about perfection. It's about participation. Start where you are and level up.”

Pilots will begin next year, with the standard now in a 12-week global public review phase. The rollout is staged intentionally with three audit levels—not quite a pass-or-fail process.

“We did this because if you make the bar too high from the start, you'll actually discourage participation and that defeats the purpose,” she said. “Level 1 has meaningful requirements—it's not a free pass—but it's intentionally accessible. Levels 2 and 3 progressively add more advanced social and environmental compliance requirements.”

That pragmatism is why the timing finally makes sense. Benedetto framed three “forcing functions” now shaking the industry awake. Looking at margins, warehousing deadstock is now too expensive to justify doing nothing. On the regulation front, recent legislation in Europe has criminalized severe environmental destruction, enacting rules “tantamount to ecocide,” according to the Council of Europe's Committee of Ministers. From the consumer-demand side, if greenwashing is PR death, greenhushing is no longer safe.

In other words, the good intentions didn't force fashion's hand. But the math finally might.

And that math is monumental. Benedetto estimated \$2 trillion worth of deadstock value is locked in global supply chains across industries—not just fashion, but hospitality, interiors, aviation, automotive. Textiles are simply the tip of the visible iceberg.

“This stuff is not dead—it's very much alive,” Benedetto said. “It's just waiting to be found.” ☹️

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