

# HOW EU'S NEW ANTI-GREENWASH REGULATIONS IMPACT FASHION INDUSTRY



DS-4000 Digital  
Squeegee® Redefines  
Printing Possibilities with  
Speed, Efficiency,  
Versatility

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Denim Deal 2.0 pushes  
for post-consumer  
recycled materials

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RMIT develops  
nanodiamond-coat  
ed textiles that cool  
down faster

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Figure: Movement by Greenwashing activists due to directive

# How EU's new anti-Greenwash regulations impact fashion industry

■ Homayra Anjumi Hoque

Greenwashing, the practice of making misleading or unsubstantiated claims about the environmental benefits of products or services, is becoming a matter of concern in an era of climate crisis and consumer awareness. To protect consumers from false or misleading advertising and support companies that are truly committed to sustainability, the European Union has passed new legislation that will revolutionize the way environmental claims are made and verified.

The law, passed by the European Parliament on 17 January 2024, introduces strict standards and rules for the development and substantiation of environmental claims and regulates the use and management of sustainability labels. With an overwhelming majority of 593 votes in favor, 21 votes against and 14 abstentions, the Directive is an important step towards improving consumer protection and promoting more sustainable purchasing decisions. It bans the use of terms such as “climate neutral”, “climate positive” “environmentally friendly,” “natural,” “biodegradable,” or “eco”- will be prohibited unless substantiated with evidence, which have been widely criticized as lacking in effectiveness and transparency and also because of CO2 emissions offsetting schemes. This step will be commenced from the EU by 2026 as part of a crackdown on misleading environmental claims. The provision also regulates the use of sustainability labels,

allowing only labels based on official certification systems or established by authorities. This measure aims to reduce confusion caused by the proliferation of such labels and ensure their credibility.

## Key points from this provision:

- » Generic environmental claims and other misleading product information will be outlawed.
- » Only sustainability labels based on approved certification schemes or established by public authorities will be allowed.
- » Guarantee information has to be more visible and a new guarantee extension label will be introduced.

## Objectives of the law; Root for good

The EU said that while investments by companies in climate protection projects were welcome and could still be communicated, they could no longer fool people into believing a product was “good because the company planted trees somewhere”. It said this was a great success for the environment, the climate, and consumers.

Another important goal of the new law is to put more emphasis on product expiration dates for manufacturers and consumers. In the future, new and harmonious

labels will be created to make warranty information more visible and to make products with extended warranties more visible.

Under the new directive, only sustainability labels using approved certification schemes will be allowed by the bloc. It comes amid widespread concern about the environmental impact of carbon offsetting schemes, which have often been used to justify labeling products “carbon neutral”, or imply that consumers can fly, buy new clothes or eat certain foods without making the climate crisis worse.

### Beginning of the end; Greenwashing era reaches to edge

The Directive on Empowering Consumers for the Green Transition, adopted by the European Parliament, finally adds common greenwashing tactics to the list of unfair commercial practices. More than 50% of claims must be extinguished or modified. As a result, EU consumers will soon see far fewer meaningless environmental claims, including the following prohibitions:

Claims that a product has a reduced or no impact on the environment based on the use of carbon offset credits, which are unconnected to actual emissions reduction. This is the end of climate-neutral flights and bananas – impossible claims that should never have been permitted.

Claims about future environmental performance without a realistic commitment by the company to achieve stated goals. Companies must communicate their plans and have them regularly reviewed by independent external experts.

General claims without explanation or evidence. No

longer is it to be needed to just display the symbol “eco-friendly” or “100% eco-friendly” on billboards.

Sustainability labels without an appropriate and independent certification process – including labels created by companies for their products to give the false impression that claims are verified.

### One down one to go; Green Claims directive fills the gap

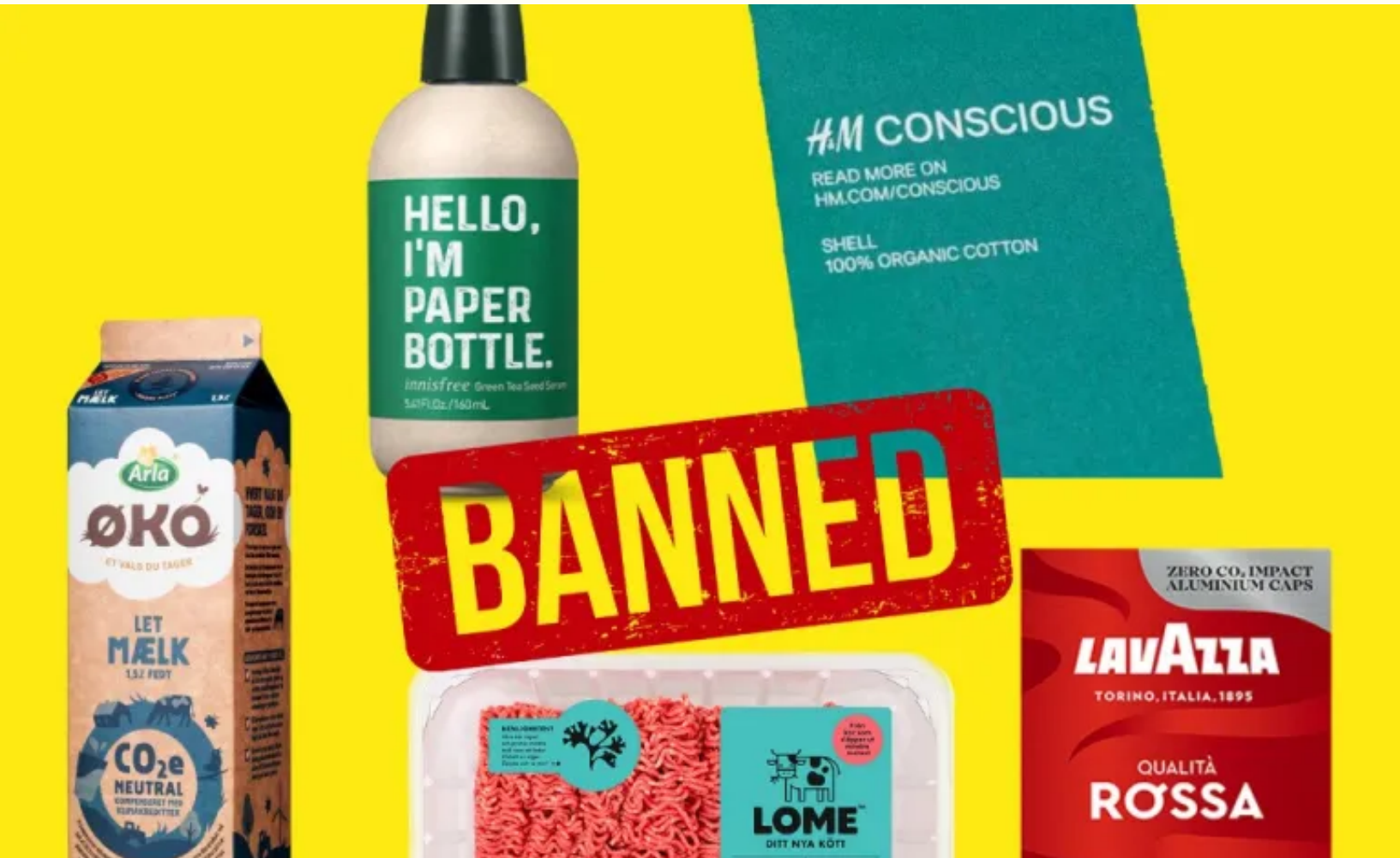
While the Consumer Rights Directive sends a strong signal that greenwashing is no longer tolerated in the EU, the real measure of its success is enforcement, and complementary legislation such as the Green Claims Directive, is still needed.

The Consumer Rights Directive requires companies to provide evidence, but does not require them to verify environmental claims before making them (as proposed in the Green Claims Directive). This would have been an important safety measure, so it is a shame that it is not specified in this law.

### Impact of the Law on Fashion & apparel Supply Chain

The EU's law to ban greenwashing and improve consumer information on product durability is poised to significantly impact the fashion and apparel supply chain. Here are some key ways it might affect various aspects of the industry:

Supply Chain Transparency: Fashion brands will face increased pressure to provide transparent information about their supply chains, including materials sourcing,



manufacturing processes, and environmental impact. This transparency will help consumers make more informed purchasing decisions and hold companies accountable for their sustainability claims.

**Product Design and Manufacturing:** With the ban on commercial communications about goods with features that limit durability, fashion brands will need to reconsider

“

*“This law will change the everyday lives of all Europeans! We will step away from throwaway culture, make marketing more transparent and fight premature obsolescence of goods. People will be able to choose products that are more durable, repairable, and sustainable thanks to reliable labels and advertisements. Most importantly, companies can no longer trick people by saying that plastic bottles are good because the company planted trees somewhere – or say that something is sustainable without explaining how. This is a big win for all of us!”*

Parliament’s rapporteur Biljana Borzan  
(S&D, HR)

their product design and manufacturing processes. There may be a shift toward producing higher-quality, longer-lasting garments, reducing the prevalence of fast fashion and planned obsolescence.

**Certification and Labeling:** The requirement for sustainability labels to be based on approved certification

schemes or established by public authorities will necessitate certification from recognized sustainability standards for fashion brands. This could lead to increased adoption of eco-friendly materials, ethical production practices, and adherence to environmental standards.

**Consumer Behavior:** The law will likely raise consumer awareness about the environmental impact of fashion and apparel products. Consumers may become more discerning, preferring brands that demonstrate genuine commitment to sustainability and durability. This could drive demand for eco-friendly and ethically produced clothing, influencing purchasing decisions throughout the supply chain.

**Marketing Practices:** Fashion brands will need to rethink their marketing strategies to comply with the ban on generic environmental claims and misleading marketing practices. Companies will need to provide evidence to substantiate their sustainability claims and avoid greenwashing. This could lead to more authentic and transparent communication with consumers.

**Investment in Sustainability:** To comply with the law and meet consumer expectations, fashion brands may need to invest in sustainable practices and technologies. This could include sourcing eco-friendly materials, reducing energy and water consumption, improving waste management, and implementing circular economy initiatives.

**Global Impact:** While the law applies specifically to the EU, its effects will likely have broader implications for the global fashion industry. International fashion brands seeking to access the EU market may need to align with EU sustainability standards, leading to more widespread adoption of sustainable practices worldwide.



Figure: EU Adopts Greenwashing Law to Combat Misleading Product Marketing, courtesy: tovima.com

# Piñatex, Eco-Friendly leather made from Pineapples

Faujia Mushtari

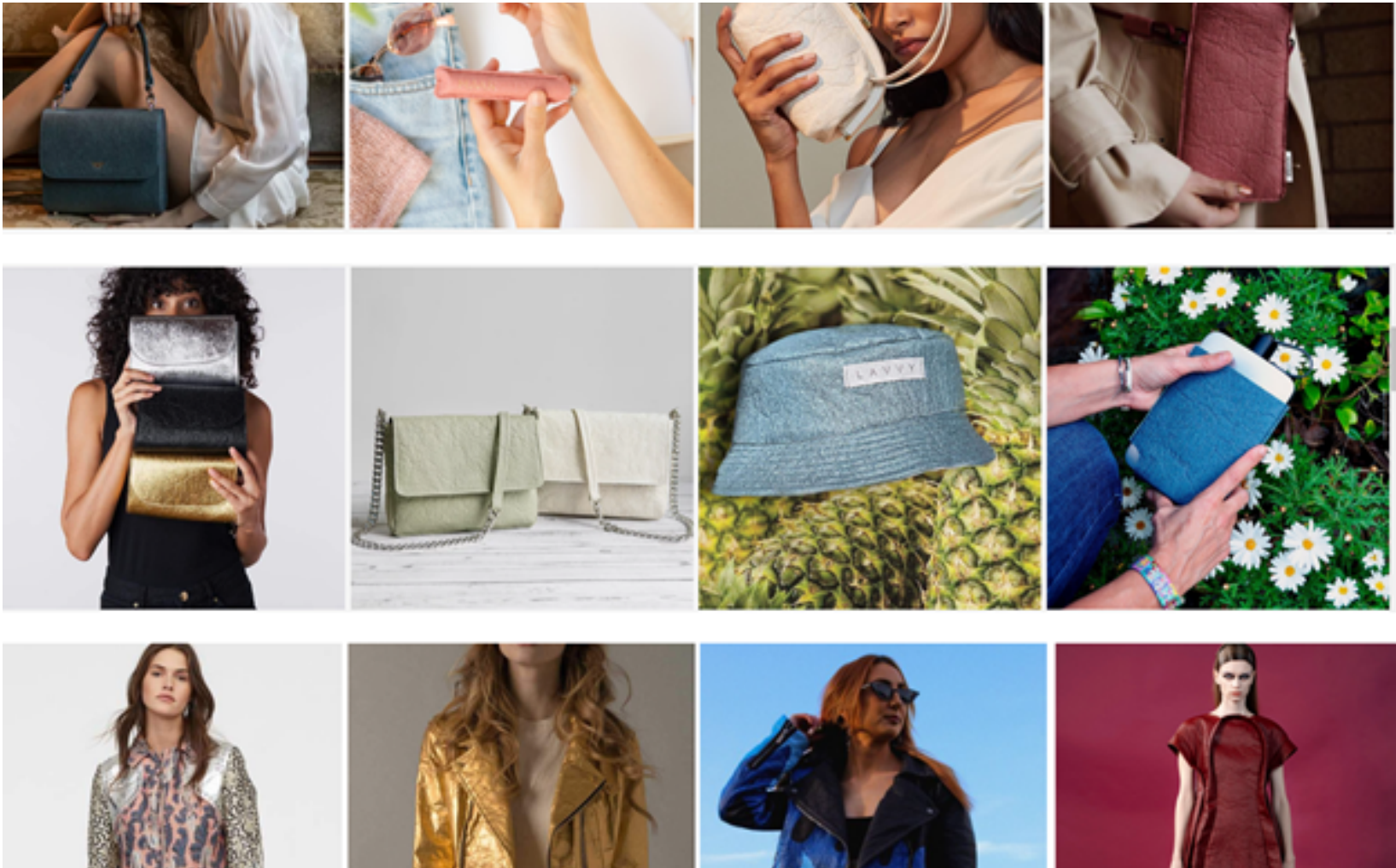


Figure: Bags, accessories & Clothing form Piñatex

In the ever-evolving landscape of sustainable fashion, Piñatex emerges as a game-changer, offering an innovative solution crafted from discarded pineapple fruit waste and leaves. Composed primarily of fibers extracted from cellulose-rich pineapple plant leaves, Piñatex addresses environmental concerns by repurposing a byproduct often discarded in the pineapple industry. This approach champions a circular economy, significantly reducing agricultural waste and minimizing its environmental impact. Versatile in nature, Piñatex exhibits remarkable properties – lightweight, breathable, and endowed with a unique texture resembling traditional textiles. Its water-resistant quality ensures durability, making it suitable for diverse applications, including shoes, bags, and clothing.

## From Leather Industry Consultant to Piñatex Pioneer

The journey of Piñatex traces back to Carmen Hijosa, a leathergoods expert who, while consulting on the Philippines’ leather export industry in the 1990s, was appalled by the environmental impact of mass leather production. Determined to find a sustainable alternative, Hijosa drew inspiration from traditional weaving

practices and sought to create a non-woven textile with positive social, economic, and environmental impacts. Piñatex, made from the waste leaves of the pineapple plant, requires no additional environmental resources for production, standing in stark contrast to traditional PVC ‘cruelty-free’ leather. Its biodegradability, waste-reducing nature, and empowerment of pineapple farmers exemplify its commitment to sustainability.

## What raises concerns regarding real leather

Leather, derived from animal skin, is a widely used material in the fashion industry. The production process involves the ruthless slaughter of billions of animals annually for the creation of clothing, shoes, handbags, and various accessories. This industry also poses a threat to diverse animal species, including seals, sheep, deer, alligators, snakes, zebras, sharks, and even domestic pets like cats and dogs. The leather trade contributes to the trapping and killing of endangered species, jeopardizing creatures that should be protected, such as reptiles, kangaroos, ostriches, beavers, wild cats, bears, and antelopes.

The production of leather involves subjecting animals to



Figure: Production process from pineapple waste

immense suffering, including being trapped, caged, and often skinned alive. These animals endure inhumane conditions, crowded environments, deprivation of liberty, and painful treatments. Additionally, leather tanning, a crucial step in processing animal-derived textiles, has detrimental effects on the environment, ecosystems, and human health. The use of harmful chemicals in this process leads to pollution of rivers, water sources, and soils, often released untreated into the nearby environment.

### The Remarkable Qualities of Pineapple Leather

Pineapple leather, a cost-effective, soft, lightweight, and flexible material, lends itself easily to various design applications such as printing, stitching, embossing, embroidering, and cutting.

This leather-like substance is not only user-friendly but also boasts strength, durability, and eco-friendliness. Available in a diverse range of styles, patterns, colors, and finishes, it is a vegan, ethical, fair, and cruelty-free material sourced sustainably. Composed of natural pineapple leaf fibers, Piñatex stands out as a non-woven innovative textile..

### Transforming Pineapple Waste into Piñatex Marvel

Pineapple leaves represent a byproduct of existing agricultural practices, presenting an additional source of income for farming communities. Approximately 460 leaves are required to produce one square meter of Piñatex fabric. Ananas Anam discloses that the top 10 producer countries could theoretically substitute more than 50% of global leather production. Currently, the company operates facilities in the Philippines, Spain, and the United Kingdom.

### Caring for Piñatex Pineapple Leather

Taking responsible care of your clothing is a key strategy for leading a more sustainable lifestyle and ensuring their extended lifespan. Pay special attention to Piñatex pineapple leather, as this delicate material requires careful handling to prevent damage.

### Pinatex Fabric Uses

Piñatex pineapple leather is well-suited for a wide range of applications, including footwear, bags, wallets, clothing, accessories, and upholstery. Numerous manufacturers utilize Piñatex to craft various items for both households and the fashion industry. In the textile and apparel sector, Piñatex leather is commonly employed in similar applications as genuine leather.

Fashion brands worldwide are increasingly opting for Piñatex fabrics to produce ethical and cruelty-free clothing items, including coats, jackets, blazers, shirts, pants, parkas, vests, skirts, dresses, and more. Originally developed by Ananas Anam in the Philippines, Piñatex is set to expand its production to pineapple cultivation locations such as Costa Rica, Colombia, Brazil, South Africa, Taiwan, and beyond.

### Sustainable Fashion Brands Embrace Piñatex Pineapple Leather

Piñatex, the revolutionary material derived from pineapple waste, has not only garnered attention from environmentally conscious consumers but has also become a staple in the collections of various sustainable fashion brands. This ethical alternative to traditional leather has found favor among brands committed to minimizing their ecological footprint and promoting cruelty-free practices.

## Svala: World-Class Sustainable Vegan Handbags

Svala, a prominent player in the sustainable fashion arena, has embraced Piñatex in crafting world-class vegan handbags and accessories. Handcrafted locally and ethically in downtown Los Angeles, Svala ensures that their creations align with the best materials while championing ethical and sustainable fashion.

## Lo Neel: French Brand Pioneering Vegan Fashion

Lo Neel, a French brand at the forefront of vegan fashion, incorporates Piñatex into its clothing and accessory lines. With a commitment to respecting both people and the planet, Lo Neel exemplifies how Piñatex can seamlessly integrate into a brand’s ethos of sustainability and style.

## No Saints: Ethical Sneakers with a Conscience

No Saints, an animal-free sneaker brand, is making strides by creating shoes in Portugal with premium materials, including Piñatex. Their commitment to premium quality and ethical production extends to the use of sustainable alternatives like Piñatex, proving that style need not compromise ethics.

## NAE Vegan Shoes: A Holistic Approach to Ethical Fashion

NAE Vegan Shoes offers a wide range of ethical, vegan,

and eco-friendly footwear, including flats, shoes, sneakers, sandals, boots, and heels. By incorporating Piñatex into their collections, NAE Vegan Shoes exemplifies a commitment to providing sustainable alternatives for conscious consumers.

## Vegetarian Shoes: British Footwear with a Conscience

Vegetarian Shoes, a British footwear brand, stands out for creating ethical, quality animal-friendly shoes. Their commitment to sustainability is evident in the incorporation of Piñatex into their product lines, providing consumers with cruelty-free and environmentally conscious choices.

## Eve And Adis: German Lifestyle Brand of Fair Accessories

Eve And Adis, a German lifestyle brand, specializes in fair and sustainable accessories made of natural materials. By utilizing Piñatex, they contribute to the growing movement of ethical fashion, where style meets responsibility.

As these sustainable fashion brands integrate Piñatex into their collections, they not only showcase the material’s versatility and style but also emphasize a collective commitment to a more sustainable and compassionate future in the fashion industry. The adoption of Piñatex by such brands highlights a positive shift toward ethical practices, encouraging consumers to make mindful choices in their fashion purchases.



Figure: Footwear from Pinatex

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# Levi Strauss targets corporate workforce in 10-15% cost-cutting move

■ Faujia Mushtari

In a move to enhance operational efficiency, Levi Strauss & Co. revealed plans to cut up to 15% of its corporate workforce, triggering a decline in its stock value. The renowned denim manufacturer is steering towards prioritizing direct-to-consumer (DTC) sales over wholesale channels, marking a strategic shift in its business model.

The company's newly introduced "productivity initiative" encompasses cost-cutting measures and streamlining operations over the next two years. This initiative, aimed at creating a leaner and more agile organization, is anticipated to yield net cost savings of \$100 million in 2024.

The job cuts, constituting the first phase of the global productivity initiative, are anticipated to incur restructuring charges of \$110 million to \$120 million in the first quarter of the fiscal year. Levi Strauss hopes that these reductions will pave the way for sustained long-term profitable growth. Shares of Levi Strauss dipped by as much as 5.9% in extended New York trading after the announcement, contributing to a 4.8% decline in the stock value for the year. This underperformance, when compared to the Nasdaq US Small Cap Index, reflects the market's response to the workforce reductions and the company's 2024 outlook falling short of Wall Street's expectations.

Incoming CEO Michelle Gass, set to take over from current CEO Chip Bergh on January 29, expressed the company's commitment to becoming a more efficient DTC retailer. Gass highlighted the importance of planning for uncertainties in the wholesale business in the upcoming year.

Levi Strauss projects adjusted earnings per share for fiscal 2024 to range between \$1.15 and \$1.25, below the average analyst estimate of \$1.33. Net revenues are expected to increase by up to 3% from the prior year, falling short of Wall Street's expectations.



Figure: Levi's\_Storefront, Creator: @Epicsunwarrior Copyright: Ajay Suresh

The fiscal fourth-quarter results revealed a slight beat on earnings per share but revenue slightly below expectations. Notably, direct-to-consumer revenue, constituting over 40% of the overall business, rose by 11% in the quarter, indicating the company's focus on strengthening this segment. Levi Strauss aims for the DTC division to contribute to 55% of sales over the next five to six years.

As part of the restructuring, Levi Strauss will discontinue its Denizen brand, a wholesale offering sold at Target Corp.'s stores and other retailers. Michelle Gass affirmed that this decision was mutual with Target, emphasizing the company's commitment to optimizing its product mix and reducing reliance on off-price retailers.

The company's fiscal 2023 revenues remained flat at \$6.2 billion, with gross margin at 56.9%. For fiscal 2024, Levi Strauss forecasts a 1-3% year-over-year growth in net revenues and adjusted diluted EPS in the range of \$1.15 to \$1.25. The restructuring is expected to generate net cost savings of \$100 million in the current fiscal year.

Levi Strauss, a company with about 20,000 global employees, anticipates the layoffs to take place in the first half of 2024. The weakened foreign currency exchange rates, liquidation of its Russia business, and the exit from the Denizen brand were cited as contributing factors to the company's cautious fiscal outlook.



Figure: Salon International de la Lingerie, © Mey

# Lenzing and LUOLAI collaborate to drive sustainable home textile innovation

■ Mashia Sahejabin

Lenzing, the specialist fiber manufacturer, and LUOLAI, China’s leading home textile brand, have announced a first-of-its-kind R&D collaboration to drive fiber and application innovation in the home textile segment.

The collaboration combines the expertise of LUOLAI’s R&D center and Lenzing’s application innovation center. It will provide opportunities for resource sharing, technology exchange, and market cooperation.

This R&D strategic collaboration facilitates resource sharing, technology exchange, and market collaboration, particularly towards the advancement of LUOLAI’s core supersoft technology, while also increasing the use of Lenzing’s planet-friendly materials. Lenzing recognized for TENCEL™ lyocell and modal fibers that are certified with the EU Ecolabel for environmental excellence [1], will also be a key component partner of LUOLAI under the collaboration. “I am delighted to witness the collaboration between LUOLAI and Lenzing,” said Harold Weghorst, Lenzing’s Global Vice President of Marketing and Branding. “Through this partnership of innovation, sustainability, and branding, we can not only develop exceptional solutions that exceed our customers’ expectations, but we can also offer unique and exciting new products.”

Already the market leader of home textile products in China, LUOLAI has expanded into a multi-enterprise in R&D, design, production, and sales. At its core is a commitment to meet consumer needs – with comfort and

## Key focuses of collaboration include:

- Advancement of LUOLAI’s original supersoft technology
- Increasing the use of planet-friendly materials in lensing
- Co-development of new and innovative home textile products

softness at the top of the list. LUOLAI’s partnership with Lenzing is expected to help take this commitment to its next step.

“We have high expectations for this strategic partnership as we believe that Lenzing and LUOLAI will thrive and grow together,” said Rex Mok, Lenzing’s Vice President of Fiber Technical Marketing and Development.

“With Supersoft technology, we hope to reduce the use of softeners in production. Having a shared core belief in being environmentally responsible, we look forward to working with LUOLAI to educate the market and consumers to raise awareness,” Rex Mok added.

Rex Mok further said, “We have high expectations for this strategic partnership as we believe that Lenzing and LUOLAI will thrive and grow together. With Supersoft technology, we hope to reduce the use of softeners in production. Having a shared core belief in being environmentally responsible, we look forward to working with LUOLAI to educate the market and consumers to raise awareness.”

# DS-4000 Digital Squeegee® Redefines Printing Possibilities with Speed, Efficiency, Versatility

## ■ SAS Enterprise

The world of garment printing is constantly evolving, with new technologies emerging to meet the ever-growing demands for speed, efficiency, and versatility. In this dynamic landscape, the DS-4000 Digital Squeegee® Hybrid Printing System stands out as a groundbreaking innovation, offering a unique blend of the strengths of traditional screen printing and digital printing. This article delves into the intricacies of the DS-4000, exploring its capabilities, benefits, and potential impact on the printing industry.

## Bridging the Gap: Understanding Hybrid Printing

For decades, screen printing has reigned supreme in the realm of garment printing, renowned for its ability to produce high-quality prints on various fabrics. However, its limitations, such as slower production speeds and the need for extensive setup processes, often hinder its suitability for smaller orders or quick turnaround times.

The DS-4000 bridges this gap by ingeniously combining the strengths of both technologies. It utilizes a screen-printed underbase for superior opacity and color vibrancy, followed by a digital top layer for intricate details and full-color imagery. This innovative approach empowers businesses to achieve the following:

- » **Unmatched Production Speeds:** The DS-4000 boasts an impressive printing speed of up to 400 prints per hour, significantly exceeding the capabilities of traditional screen printing and rivaling the pace of DTG systems.
- » **Cost-Effective Efficiency:** By eliminating the need for expensive digital white underbase inks and lengthy pretreatment processes, the DS-4000 offers significant cost savings.
- » **Enhanced Versatility:** Unlike traditional screen printing methods, the DS-4000 isn't restricted to specific fabric types. Its ability to print on a wider range of fabrics, including synthetic blends and performance wear, opens doors to new creative possibilities and caters to a broader customer base.
- » **Simplified Workflow:** The system boasts minimal screen requirements and a streamlined workflow, allowing for quicker setup times and easier operation. This reduces the learning curve for new operators and minimizes production delays.



Figure: Denim Deal closing event Credits: Denim Deal, Rosa van Ederen

» **Exceptional Print Quality:** The combination of screen printing and digital printing technologies in the DS-4000 ensures vibrant, high-resolution prints with exceptional color accuracy and durability. This translates to garments that not only look stunning but also withstand multiple washes and wear.

## Impact of the DS-4000: A Transformation in the Making

The introduction of the DS-4000 has the potential to significantly impact the printing industry in several ways:

- » **Democratizing High-Quality Printing:** Previously, achieving high-quality prints on various fabrics often required significant investment in equipment and expertise.
- » **Empowering On-Demand Printing:** The speed and efficiency of the DS-4000 make it ideal for on-demand printing services.
- » **Expanding Creative Horizons:** The ability to print on diverse fabrics opens doors for designers and businesses to explore new creative avenues.

## Beyond the Technicalities: The Human Element

While the technical advancements of the DS-4000 are undoubtedly impressive, its impact extends beyond mere efficiency and cost savings. The system has the potential to empower individuals and businesses to express themselves creatively and bring their visions to life on various garments.

# Denim Deal 2.0 pushes for post-consumer recycled materials

■ M A Mohiemen Tanim



Figure: Denim Deal closing event Credits: Denim Deal, Rosa van Ederen

Denim deal, also known as the Dutch C-233 Green Deal on Circular Denim. An agreement between the mill, the manufacturer, the brand, and the city of Amsterdam began in 2020 to increase the use of recycled materials. By the end of 2023, they have doubled the target by supplying 6.5 million pairs. After that, the deal came back in 2024 in a new form called Denim Deal 2.0. However, the denim deal 2.0 in 2024 continues to grow from the past.

The first plan to set global recycling hubs as the Denim Agreement targets is to create a European hub to connect the dots between different markets and sourcing and supply chains. 1 billion pairs of jeans: Denim Deal 2.0 aims to produce 1 billion pairs of jeans using PCR (post-consumer recycled) materials. Despite the initial challenge of getting brands on board, participants surpassed the goal of producing at least 3 million pairs of jeans with a minimum of 20 percent post-consumer recycled (PCR) content.

Established global centers are Germany, France, Turkey, Tunisia, Egypt, Asia, North America, and South America. Organizers are also focusing on France, where producers are particularly well-rounded, as well as Turkey, Tunisia, and Egypt. Ultimately, Prophet says the goal is to recreate centers in Asia, North America, and South America. "For example, Brazil has large denim production sites with large mills, but a large population consumes jeans," he said. "We can build the same ecosystem with stakeholders there with the same goals and objectives."

Denim Deal contributor Nicolas Prophet, former VP of PVH's Denim Center in Amsterdam, Besim Ojek, Bossa's director of strategy and business development, and

Romain Narci, Ere's partner and Rematters founder, have already discussed the new plan at BlueZone in Munich. But maintaining the right pace of a private and public collaborative platform like the January 23-24 Denim Deal is not easy. Even if they share a vision, Prophet says stakeholders perform tasks in different cycles. However, he said then that lessons learned during the original three-year deal informed a scalable blueprint that the denim deal could "plug and play" elsewhere to help other countries close the loop. "There are many barriers and there are challenges, whether they are technical or trade barriers. There is light at the end of the tunnel and we deliver results," Narci said. Denim Deal 2.0 expansion plans to begin in Germany,

A European hub will be created to connect different markets and supply chains. Because Europe is now the largest denim market. Developing new technological solutions to utilize and improve PCR materials. Working with governments to support circular economy policies. To increase awareness about sustainable denim among consumers. Reducing the use of water, energy, and chemicals will help reduce environmental impact. This will create new markets and employment opportunities. Sustainable clothing will help in the development of the industry.

The use of PCR materials requires new technological solutions. Need to develop circular business models. Government action is needed to support circular economy policies. Denim Deal 2.0 is an important step in the development of a sustainable denim industry. If this initiative is successful, it will provide significant benefits to the environment, economy, and society.

# Lenzing recognized for sustainability leadership with third consecutive CDP ‘Triple A’ score

■ Hasan Mia



Figure: Salon International de la Lingerie, © Mey

**Lenzing one of the only 10 companies in the world with a “Triple A” score**

**Leading role in corporate transparency and performance on climate change, forests, and water security reaffirmed**

**CDP is considered the gold standard for international environmental reporting**

Lenzing, a leading producer of wood-based fibers, has once again been recognized for its sustainability leadership by CDP, a non-profit organization that scores companies on their environmental performance. Lenzing received the highest score possible, a Triple A, for the third year in a row.

This makes Lenzing one of only 10 companies in the world to achieve this feat.

CDP’s ratings are based on a comprehensive assessment of a company’s environmental impact, including its greenhouse gas emissions, water usage, and waste management. Lenzing’s triple A score reflects its strong commitment to sustainability throughout its operations.

“We are incredibly proud to be recognized by CDP for our sustainability leadership,” said Lenzing CEO Robert MacGregor. “Sustainability is at the core of everything we do at Lenzing, and we are committed to continuously improving our environmental performance.

“Lenzing’s commitment to sustainability is evident in its ambitious goals for the future. The company has set a goal to reduce its greenhouse gas emissions by 50% by 2030 and to achieve climate neutrality by 2050. Lenzing is also working to reduce its water usage by 25% by 2030 and to eliminate all landfill waste from its operations by 2025. Lenzing’s recognition by CDP is a significant achievement for the company. It demonstrates Lenzing’s commitment to sustainability and its leadership in the forest products industry.

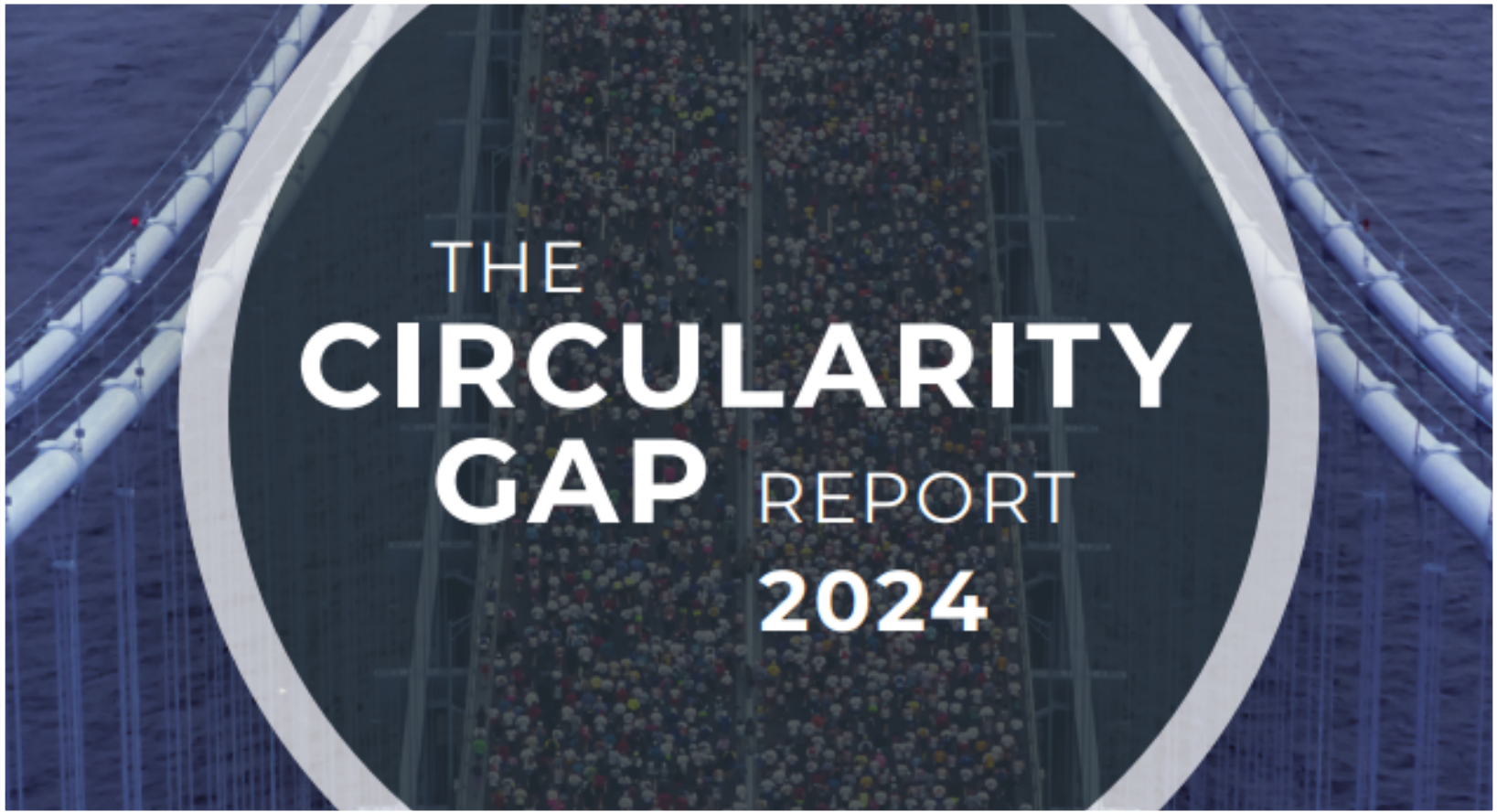
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*“Lenzing is a true leader in sustainability. The company’s Triple A score is a testament to its commitment to environmental responsibility. We are proud to recognize Lenzing for its outstanding achievements.”*

CDP CEO Paul Simpson

# Circularity Gap Report 2024 warns of widening consumption hole

■ M A Mohiemen Tanim



The latest edition of the Circularity Gap Report, a collaboration between Circle Economy and Deloitte, paints a concerning picture of the global economy’s resource utilization. While the circular economy concept gains traction, the report reveals a steadily declining circularity rate, dropping from 9.1% in 2018 to 7.2% in 2023. This translates to a widening consumption gap – the difference between the amount of resources we use and what we manage to keep in circulation. The report identifies key trends contributing to this trend:

**Growing demand for materials:** Population growth, urbanization, and rising living standards are driving up resource use across various sectors.

**Limited progress in recycling and reuse:** While recycling rates have improved in some regions, they remain insufficient to meet the growing demand for secondary materials.

**Linear business models still dominant:** Many businesses continue to operate under a “take-make-dispose” model, leading to significant resource waste.

The report outlines a “Shift, Grow, Build” framework for different income groups to bridge the gap:

**High-income countries:** Focus on shifting consumption patterns towards more sustainable products and services, while growing circular business models and infrastructure.

**Middle-income countries:** Grow circularity through investments in collection and sorting systems, and promote shift in consumption patterns.

**Low-income countries:** Build the foundation for circularity by focusing on basic infrastructure, waste management systems, and securing access to essential resources.

The report also calls for systemic change, urging policymakers, businesses, and individuals to collaborate and implement concrete actions. This includes:

Stronger policies that incentivize circularity and discourage virgin material use.

Unlocking investment for circular infrastructure and innovation.

Addressing the skill gap to support the transition to a circular economy.

“

*Despite growing awareness and discussions, the global material crisis is worsening. We’re consuming resources faster than ever, and our reliance on virgin materials is increasing, not decreasing.*

Matthew Fraser,  
Head of Research & Development at Circle Economy

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# Swiss Textile Machinery offers solutions for processing recycled fibers

■ Hasan Mia

The textile industry is undergoing a significant transformation, driven by the growing demand for sustainable practices and eco-conscious products. Consumers are increasingly seeking out clothing and textiles made from recycled materials, putting pressure on manufacturers to embrace circularity within their production processes. However, transitioning to recycled fibers presents unique challenges, particularly regarding their processing.

Here's where Swiss Textile Machinery Association members come into play, offering innovative solutions and expertise to navigate these hurdles.

## Addressing the Challenges of Recycled

Synthetic recycled materials like PET are often treated similarly to virgin fibers. However, natural fibers like wool and cotton pose a bigger challenge due to their inherent characteristics. Mechanically recycled wool, for instance, undergoes shredding and re-spinning, impacting its strength and durability. Steiger tackles this issue by equipping knitting machines with positive yarn suppliers that control tension and enhance the quality of the final product.

## Nonwovens: Embracing the Circular Economy

Nonwovens technology, known for its versatility and efficient production, plays a crucial role in incorporating recycled fibers into various textile products. Autefa Solutions offers comprehensive nonwoven lines that seamlessly process both mechanically and chemically recycled fibers. These lines produce various everyday items like liners, wipes, wadding, and insulation, often enabling the reuse of fibers up to four times within a single product lifecycle.

### Beyond Processing: A Commitment to Sustainability

The commitment to sustainability goes beyond just processing recycled fibers. Stäubli, another member of the association, demonstrates this dedication through its comprehensive ESG strategy. This strategy focuses on minimizing energy consumption, extending machine longevity, and prioritizing the recyclability of their machinery. Notably, their automatic drawing-in machines,



*Fig: Producing spider silk by Kraig Biocraft laboratories source: Textintel*

weaving systems, and jacquard machines boast an impressive recyclability rate of 96-99%.

## Swissmem and the Swiss Textile Machinery Association: A Collaborative Force for Change

Swissmem, the leading association for Swiss technology companies, provides extensive support to its members, including those in the textile machinery sector. The Swiss Textile Machinery Association, established in 1940, specifically represents the interests of Swiss textile machinery manufacturers. Together, these organizations foster collaboration and innovation, driving advancements in circularity within the textile industry.

The expertise and dedication of Swiss Textile Machinery Association members are instrumental in propelling the textile industry towards a more sustainable future. By offering innovative solutions for processing recycled fibers, prioritizing energy efficiency, and promoting machine recyclability, they are paving the way for a circular economy within the textile sector. This collaborative effort not only addresses environmental concerns but also caters to the growing demand for eco-conscious products, ultimately shaping a more responsible and sustainable textile landscape.



# COREVA™: World's first biodegradable stretch denim

■ M A Mohiemen Tanim

Innovation in the fashion industry often comes hand-in-hand with sustainability. As concerns over environmental impact continue to grow, companies are challenged to create products that not only meet consumers' desires but also minimize harm to the planet. In 2020, Candiani Denim, a renowned Italian denim mill, achieved a groundbreaking milestone in denim manufacturing with the invention and patenting of COREVA™ stretch technology. This innovation marks a significant leap forward in the quest for sustainable denim production.

After five years of dedicated research and development, Candiani Denim unveiled COREVA™, a revolutionary solution that replaces synthetic stretch yarns with a 100% natural, biodegradable, and compostable alternative. This breakthrough technology allows for the creation of denim fabrics with the same aesthetic appearance, stretch performance, and durability as traditional denim, but with a drastically reduced environmental footprint. The introduction of COREVA™ represents a paradigm shift in the fashion industry, transforming the negative impact of denim production into a positive one by embodying the principles of circularity.

At the heart of COREVA™ is a natural rubber yarn that replaces petroleum-based synthetic yarns typically used in stretch denim. Unlike conventional stretch yarns, which can take hundreds of years to decompose and contribute to microplastic pollution, COREVA™ is entirely free from plastics and microplastics. Through a smart vulcanization process and the elimination of all synthetic components, COREVA™ becomes the world's first compostable stretch denim, offering a sustainable alternative to traditional denim fabrics.

The creation of COREVA™ was driven by Candiani Denim's commitment to address the environmental challenges posed by the fashion industry. With billions of garments manufactured each year, many of which are discarded after only a few years, the need for sustainable alternatives has never been more urgent. By pioneering the development of the first fully natural and circular stretch denim fabric, Candiani Denim aims to revolutionize the way denim products impact the planet.

The journey towards creating COREVA™ began with a simple yet profound intuition. Inspired by a natural elasticized string he encountered in a local butcher shop

in Milan, Alberto Candiani, CEO of Candiani Denim, envisioned the possibility of using natural materials to make denim. This intuition sparked five years of intensive research and thousands of hours of development, culminating in the birth of COREVA™ technology.

COREVA™ represents not only a technological innovation but also a commitment to sustainability and circularity. To ensure the credibility of their claims, Candiani Denim subjected COREVA™ to rigorous testing to assess its biodegradability, disintegration, and ecotoxicity. The fabric underwent tests in compliance with European Standard EN 13432, the recognized standard for compostability. The results confirmed that COREVA™ biodegrades within months, turning into compost and fertilizing the soil without harming the environment.

Evaluations of the compost created by COREVA™ demonstrated its positive impact on plant growth, further validating its eco-friendly credentials. Seeds planted in COREVA™ compost exhibited significantly better germination and growth compared to those planted in control material compost, highlighting the regenerative potential of this innovative fabric.

Beyond its environmental benefits, COREVA™ boasts exceptional performance and longevity. Unlike conventional stretch denim fabrics, which may lose elasticity over time, COREVA™ maintains its characteristics even after years of use. With COREVA™, consumers can enjoy the beauty, elasticity, and softness of quality denim without compromising on sustainability.

COREVA™ represents a remarkable achievement sustainably, offering a viable alternative to conventional denim fabrics.



By harnessing the power of nature and innovation, Candiani Denim has paved the way for a more sustainable future for the denim industry. With COREVA™, the vision of circular fashion becomes a reality, where garments not only minimize harm but also contribute to the regeneration of our planet. As we continue to strive for a more sustainable and equitable world, innovations like COREVA™ remind us of the transformative potential of human ingenuity in creating a brighter future for generations to come.



# Kraig Labs opens new Spider Silk production facility in Vietnam

■ M A Mohiemen Tanim

Spider silk has been used for various applications like textiles to biomedicine for its remarkable properties of strength, biocompatibility etc. However, producing spider silk at an industrial scale has been a major challenge due to the difficulties of farming spiders and replicating their complex spinning process. To overcome this challenge, Kraig Biocraft Laboratories (Kraig Labs), a US-based biotechnology company, has developed a novel method of producing recombinant spider silk, by genetically engineered silkworms to produce spider silk proteins. The company has recently opened a new production facility in Lam Dong Province, the heart of Vietnam's booming silk economy, where it plans to scale up its spider silk production and commercialization in this year's upcoming spring. This new facility will serve as an operation center for the company's expanded spider silk production project of fibers, yarns and fabrics.

Securing this new facility is happening in parallel with the Company's recently announced MOU with the Vietnam Sericulture Association ("VSA") and Lam Dong Agro-Forestry Research and Experiment Center ("LAREC"). Kraig Labs expects this center will serve as a central location for collaboration with the VSA and LAREC to enhance sericulture in Vietnam. This agreement is the result of years of effort that culminated in a highly productive working session between Kraig Labs management, VSA, LAREC, various VSA members, and the company's Vietnam subsidiary and Prodigy Textiles. Under the supervision of this MoU, the company will cooperate with these key agencies to improve and expand silk production in Vietnam. As the facility is located in the center of Vietnam's largest silk-producing region, it provides access to fresh mulberry, skilled sericulture staffing and cocoon reeling facilities. The Company anticipates this facility will also serve as the distribution and collection hub for the resulting recombinant spider silk fibers, yarns, and fabrics.



Fig: Producing spider silk by Kraig Biocraft laboratories source: Texintel

“We have been working with various governmental ministries, agencies, and departments for an extended period of time in order to demonstrate our silk production technology and to tailor that technology to the local environment,” said Company founder and CEO, Kim K. Thompson. “The MOU, and the collaboration it represents, opens up new opportunities for advanced fiber commercialization. Our goal now is to meet the challenge of expanding spider silk production to commercial scale in 2024.” In addition to this pivotal partnership with the VSA and the LAREC, Kraig Labs also reports that it is working aggressively to expand its production capacities and footprint in the first quarter of 2024. The Company's plan is to achieve metric-ton production of spider silk later this year.

This enhanced silkworm hybridization, which the company calls BAM 1, is the result of careful selective breeding to maximize both robustness and the proportion of usable silk per cocoon. Based on initial evaluations and genetic comparisons, the company believes this new two-

strain hybrid is the most efficient spider silk production system ever produced.

The final cocoons were inspected for cocoon size and silk yield. The development of this new hybrid involved careful selective crossing of the company's Dragon Silk™ strain with a number of commercially produced pure silkworm strains. After completing the breeding and stabilizing of silk traits in commercial lines, a series of cross-matings were conducted to test the results of the various crossings. This new hybrid produces more usable silk per cocoon than previous hybrid pairings and is expected to make the transition from development into



Fig: Kraig Labs plans to launch a first-ever clothing line made of spider silk Source: EcoTextiles

*“We are prepared for 2024 to be a breakthrough year for the commercialization of spider silk. Positioning our operations in the heart of Vietnam’s silk manufacturing center is a significant element of that growth,”*

*“Our team is now preparing for the spring production trials and the launch of our new BAM 1 hybrid. We expect to have this new facility online to support these exciting milestones and the commercialization of our cost-effective, eco-friendly spider silk.”*

**Kim Thompson**  
CEO, Kraig Biocraft Laboratories

operations in the first and second quarters of 2024.

He also added, “This new hybrid will play a key role in our production trials. Our team is currently scaling up production of the two parental lines used to create this hybrid. One of those parental lines is already homozygous for the spider silk gene. The next milestone, which we believe is imminent, will be to establish homozygosity with the second parental strain.” “The BAM 1 recombinant spider silk hybrid will be the central player in Kraig Labs’ spring production trials.”w



Fig: Finished reel raw silk was happily received on-site by the Company's Senior management Source: Kraiglabs



Figure: Salon International de la Lingerie, © Mey

# SIL celebrates 60 years of lingerie fashion

**Faujia Mushtari**

Lingerie is about comfort and safety and reflects fashion trends and social changes. This is the message that Salon International de la Lingerie (SIL), the leading trade fair for the lingerie industry, conveyed to celebrate its 60th anniversary. The event was held from January 20th to 22nd, 2024 in Porte de Versailles, Paris, showcased the latest innovations and creations from around 250 brands and explored the history and evolution of lingerie about fashion and culture.

Launched in 1963, the Salon International de la Lingerie is still the world’s biggest trade show for the lingerie industry. The brands from different sectors showcased not only lingerie but also corsetry, activewear, loungewear, hosiery, men’s underwear, swimwear, and wellness products.

This trade show has undergone a complete overhaul after being taken over by WSN in the summer of 2022. This year, the aim was to offer a new visitor experience by combining color prisms and chromatic geometry to create an interpretation between different areas and universes. Punctuated by color, the exhibition’s scenography aims to inject a new energy. In addition to the rich and comprehensive product range in the two dimensions, samples and finished products have been displayed in three main themes:

**Natural Elegance**– Natural materials were highlighted

## SIBL – At A Glance

- 250 exhibitors
- Creative brands, young labels, must-haves, and industry leaders brands. Like- Saeta Paris, Huit, Scandale Eco Lingerie, Lascana, Chantelle, Chantelle X, Passionata, Leonisa, Louisa Bracq, Aubade Paris, Wacoal, Freya, Fantasia, Elomi, Hanro, Simone Pérèle, Sans Complexe, Empreinte, Primadonna, Marie Jo, Andres Sarda, Dkny, Mey, Calida, Le Chat, Love To Love, Impetus, Pluto, Fila, Punto Blanco, Atelier Amour, Nette Rose, Posie, Maison Lejaby, Modibodi, Girls Must Have, Carol Coelho Intimates, Dorina, Lise Charmel, and many more
- 30% new brands, like – Fila Lingerie, Paladini, Modibodi, & Carol Coelho Intimates
- 29% French brands, 71% international brands
- Top 5 exhibitor countries: Germany, Italy, Turkey, United States, United Kingdom

in lingerie and loungewear. The focus was also on eco-responsibility and certifications.

**Weaving Heritage**– Weaving, Lyon’s textile heritage, was



Figure: Lingerie's entanglement with fashion, Salon International de la Lingerie celebrates 60 years Source: The FashionUnited

showcased around jacquard and interwoven yarns to tell the story of textile art.

**The art of stretch-** Plunged visitors into the world of elasticity and technical textiles that transform clothing and undergarments into a dynamic second skin, while Jos Berry from Concepts Paris presented his expert vision of future trends.

### SIL; Legacy of embarkment

The rich history of Salon International de la Lingerie can be traced back to the mid-20th century when a group of visionary figures recognized the need for lingerie and beachwear. The inaugural edition of the salon was held in Paris, France, and has quickly become recognized as a meeting place for industry professionals to network, grow the community, and explore the latest collections in a wide range of categories, including homeware and loungewear. Today, it serves as a global meeting place for designers, manufacturers, buyers, and influencers, attracting visitors from all over the world.

The 60th anniversary of the Salon International de la Lingerie brought together over 14,000 visitors, including buyers, journalists, and industry experts. The main motto

was to discover the latest collections from over 400 brands, with a vision to create a foundational event for the lingerie industry. The tribute included a historical display of iconic lingerie from previous decades, highlighting the evolution of styles and trends.

### Six decades of excellence

The milestone year offered the perfect occasion to look back at some defining moments for SIL and lingerie as a whole. To do so, past decades were celebrated in a special anniversary lingerie show, where notable models showcased a range of industry-defining looks, and a talk held by executives from French lingerie giants Chantelle and Simone Pérèle, who discussed societal movements that subsequently changed the course of lingerie.

SIL director Matthieu Pinet, who had initially joined the organization in 2017, shared the experience about how the conversations from the outside world have continued to rectify the meaning of underwear. The experience was shared amid the #MeToo movement. It was during this time that it became easy to pinpoint an exact crossroads for lingerie. Pinet said,

*“All these years, lingerie had mainly been destined for the male gaze. Women now wear lingerie for themselves. It’s becoming part of the silhouette and women are doing that for them. Not everybody has entered this new world, but most brands have understood this.”*

**Matthieu Pinet**  
Director, SIL

The takeover by WSN Development was another turning point for SIL which oversees the fashion-based fairs. Before this, Pinet had been guiding SIL’s Exposed section, solely dedicated to brands that viewed lingerie as a fashion accessory. However, since becoming director, Pinet has seen this trend overthrow almost the entirety of the show, becoming present not only in the work of young brands but also the more established names. Speaking on what was new for the January 2024 edition. Pinet said: “For me, it’s more a restart of the beginning of a new story. A story where lingerie is fashion.”

### Innovation meets consumer’s demand

The Salon International de la Lingerie’s showcase of cutting-edge technologies is pushing the boundaries of lingerie and swimwear. Sustainability has emerged as a key focus for the salon, with many exhibitors showcasing eco-friendly and ethical collections. From recycled materials to biodegradable packaging, the salon demonstrated the industry’s commitment to reducing its environmental impact.



Photo from SIL.MC.Paris Facebook page

Naturally, at the heart of these transformations are the demands of the ever-changing consumer. As such, Pinet has been very intentional about ensuring SIL is constantly adapting to the current environment. The demands of these self-assured women are becoming ever-present in the workings of SIL, where new markets and emerging brands push the expectations of lingerie even further. Menstrual lingerie is one of the categories leading the way here, driven largely by young, women-led brands that recognise the need to feel good no matter what time of the month it is. Founded in 2021, French label Lövane is among these names, with communications manager Khelida Andjorin noting that the acceptance of such products has only become more palpable this past year.

### Visionaries of the Salon: What are the upcoming

The fair’s Director said that upcoming categories like activewear and swimwear were only helping to bolster this side of the industry, causing brands to seek out these new forces of stability. Pinet noted:

*“For this, ready-to-wear is finally evolving so lingerie is following behind a bit. We would love for it to evolve faster, but the direction is good and I’m confident for the future.”*

When it comes to the outlook for SIL, Pinet said that while Paris will remain the event’s major home base, he is also imagining bigger events elsewhere, namely in the US and China, where the market is beginning to take off. Having already organized shows in each region – Curve New York in the US and Interfilière Shanghai in China – Pinet has a feel for what these markets need. In the US, for example, he hopes to help the very business-oriented mindset shift towards one



Aubade 1960



Simone Pérèle 1965



Aubade 1976

# RMIT develops nanodiamond-coated textiles that cool down faster

■ Mashia Sahejabin



*Nanodiamonds were chosen for this study because of their strong thermal conductivity properties. Credit: Cherry Cai, RMIT University Nanodiamonds were chosen for this study because of their strong thermal conductivity properties. Credit: Cherry Cai, RMIT University*

In today's world, staying cool and comfortable in hot weather can be a challenge. Traditional clothing materials often trap heat, leading to discomfort and even heatstroke. Researchers at RMIT University are developing a new technology that could revolutionize the way we stay cool: nanodiamonds.

Nanodiamonds are microscopic diamonds that are only a few billionths of a meter in size. Despite their small size, they have unique properties that make them ideal for a variety of applications, including drug delivery, biosensing,

and now, textiles. Researchers at RMIT have developed a process for coating cotton fabric with nanodiamonds using a technique called electrospinning. Electrospinning creates a fine mesh of fibers from a liquid solution. In this case, the solution contains nanodiamonds suspended in a solvent. When the solution is exposed to an electric field, the fibers are drawn out and deposited onto the fabric.

The nanodiamonds improve the fabric's thermal conductivity, which is the ability of a material to transfer heat. This means that heat can more easily escape



*(L-R) A sample of cotton that has been treated with nanodiamonds next to an untreated sample of cotton. Credit: Cherry Cai, RMIT University*



*(L-R) Research supervisor and Senior Lecturer Dr Xin Wang, lead researcher and research assistant Dr Aisha Rehman and project leader and Senior Lecturer Dr Shadi Houshyar. Credit: Cherry Cai, RMIT University*

from the body, keeping the wearer cooler. In tests, the nanodiamond-coated fabric was found to be up to 2 degrees Celsius cooler than untreated cotton fabric.

The use of nanodiamonds in textiles has several advantages. First, nanodiamonds are biocompatible, meaning they are not harmful to human skin. This is important for clothing that will be in direct contact with the body. Second, nanodiamonds are relatively inexpensive to produce. This makes it possible to create nanodiamond-coated fabrics that are affordable for consumers.

The development of nanodiamond-coated textiles is a significant breakthrough that could have a major impact on the clothing industry. This technology has the potential to create clothing that is not only more comfortable but also more functional. For example, nanodiamond-coated

clothing could be used to create uniforms for athletes and workers who perform physically demanding tasks in hot environments. It could also be used to create clothing for people who suffer from medical conditions that cause them to overheat easily.

Nanodiamond technology could be used to create heat sinks for electronic devices or to improve the efficiency of solar cells. The development of nanodiamond-coated textiles is still in its early stages, but it has the potential to change the way we think about clothing. This technology has the potential to create clothing that is more comfortable, functional, and sustainable.

Nanodiamonds have the potential to revolutionize the way we stay cool, protect ourselves from the sun, and even improve the efficiency of electronic devices.



*The electrospinning machine created a web of nanofibres on the cotton fibres, which are then cured to bond the two. Credit: Cherry Cai, RMIT University*

# Moiré Fabric makes a majestic return in Dior's spring 2024 couture collection

■ Faujia Mushtari



Figure: Christian Dior Couture Spring 2024

The Dior Couture Spring 2024 show took the fashion world by storm as Creative Director Maria Grazia Chiuri showcased a stunning collection that revolved around the enchanting moiré fabric. This intricate fabric, with a rich history dating back to the late 19th century in Lyon, France, was the focal point of short-sleeved coats, belted trenchcoats, and bustier dresses that shimmered down the runway. The collection not only celebrated the craftsmanship of moiré but also incorporated elements of art, with Isabella Ducrot's 'Big Aura' installation providing a visually stunning backdrop to the couture pieces.

## Moiré Craftsmanship

The moiré fabric, produced by the last remaining moiré craftsmen in France, involves a meticulous process. The dosing stage, where two pieces of fabric are aligned, is followed by a delicate arrangement and drawing process. The craftsmen focus on tension, weft, and transparency, creating a design visible through the fabrics. The calendaring stage, utilizing temperature and pressure, results

in the unique crushed texture of moiré. The collection featured extraordinary pieces, including the rare "Moiré music" technique, showcasing the high-end craftsmanship synonymous with haute couture.

## Fashion Show Highlights

Models graced the runway in draped dresses, cape jackets, and wide skirts, reflecting a muted color palette dominated by beige, gray, and black. Luxurious fabrics such as black velvet, silk, and satin emphasized the opulence of the collection. Maria Grazia Chiuri's commitment to using materials with a rich history of craftsmanship was evident, pushing the boundaries of haute couture.

## Artistic Collaboration

For the Spring 2024 season, Maria Grazia Chiuri collaborated with Neapolitan artist and writer Isabella Ducrot, whose 'Big Aura' installation adorned the walls of the venue. The larger-than-life dresses, inspired

by Ducrot’s travels across Asia, set the perfect tone for a collection celebrating centuries of dress-making savoir-faire. The harmony between art and fashion was seamlessly incorporated into the presentation.

The collection unfolded with a poetic reading from Ducrot, emphasizing the elegance derived from the interplay of fabric’s weft and warp. Impeccably crafted neutral cotton ensembles opened the show, allowing guests to appreciate the flawless creations. Caped trench coats, masterfully draped necklines, and floor-grazing hems showcased discerning grace. The collection culminated in grander ensembles, each capturing the essence of timeless chic.

### Historical Significance of Moiré

The show shed light on the historical significance of moiré, tracing its origins back to the 1600s. Once considered regal, it adorned royal palaces and became a symbol of aristocracy. Queen Victoria and Louis XV were among the elite who embraced moiré in their attire and interiors. The fabric’s democratization by Dior and Givenchy in the 1950s marked a shift from ballgowns to ladylike day dresses. In the 21st century, interior designers are rediscovering moiré’s lustrous texture and incorporating it in bold and unexpected ways.

### The Magic of Moiré Fabric

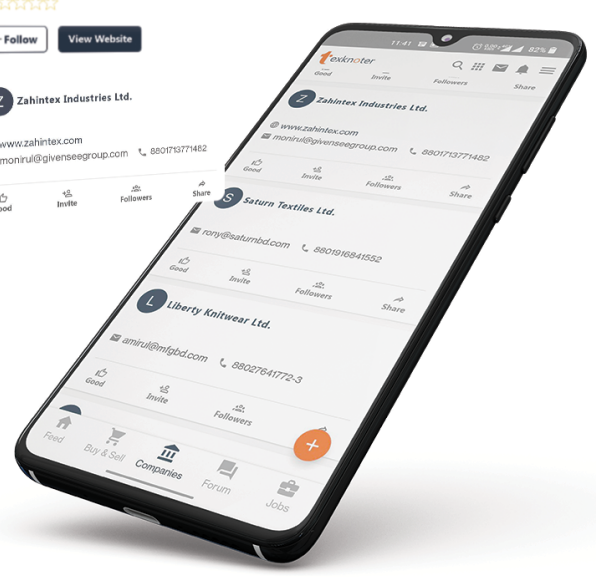
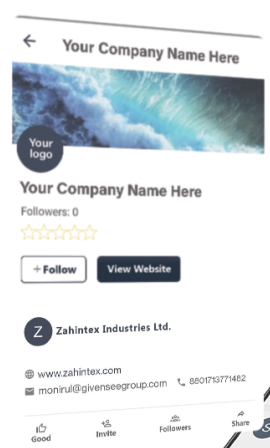
Technically a pattern rather than a material, moiré fabric undergoes a calendaring process involving specially patterned rollers, high temperature, and pressure. This process alters the appearance of fibers, resulting in a shimmering and vibrant texture. The fabric’s unique thickness and stiffness make it suitable for curtains and upholstery, and its distinct texture sets it apart. Careful handling, such as rolling instead of folding, is essential to maintain its special luster.

The resurgence of moiré in modern design is evident, with interior designers utilizing its lustrous texture for curtains, upholstery, and even small luxury accents like pillows and tiebacks. The fabric’s ability to create a sense of luxury makes it a versatile choice for both formal and contemporary settings.

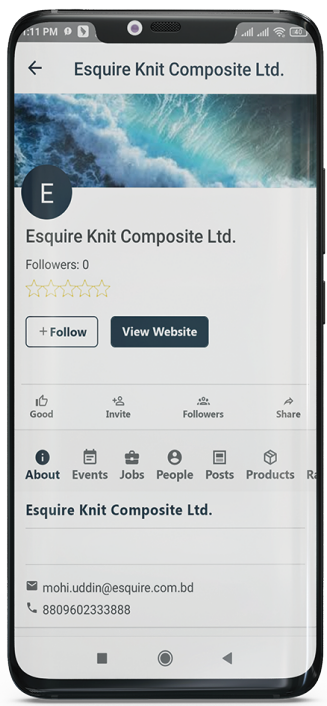
Dior Couture Spring 2024 successfully brought moiré fabric back into the limelight, showcasing its timeless elegance and historical significance. Maria Grazia Chiuri’s collaboration with Isabella Ducrot added an artistic dimension to the collection, creating a harmonious blend of fashion and visual virtuosity. As moiré continues to captivate the fashion world, its magical shimmer and rich craftsmanship ensure its place at the forefront of haute couture.



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