

# Fabric headlines

TEXT: SOPHIE BRAMEL

## 1. Wool & co

From the catwalks to the highlands, wool, alpaca and vicuña are being reinvented, literally, thanks to creative minds in all fields of the textile industry, from the farm and beyond.

### RECORD-BREAKING VICUÑA

The result of 18 years of research, the first batch of Superfine Argentinian vicuña has been produced by Italian tops specialist Schneider Group. The rare luxury fibre that the Incas call the ‘fibre of the gods’ is now available in 11.7 microns, a Guinness world-breaking fineness compared to traditional ultrafine vicuña fibres that measure 12 to 13 microns. Schneider has been stewarding the survival of the endangered species,



THE SANIN PROJECT

helping to increase its population in Argentina from fewer than 800 to more than 5,000 through its Sanin conservation initiative located in the Northern Andes and launched in 2007. It acquired 100,000 hectares of land where the animals roam freely. Once yearly, a team of specialised shearers collect the fibres, which are manually dehaired on site before being shipped to Schneider’s facility in Italy.

### OPTIMISING ALPACA FIBRE

A research project is underway in Peru to study the genetic makeup of alpacas and identify the molecular markers that could potentially improve fibre quality and enhance fineness. Led by the Universidad Agraria de La Molina (UNALM) the programme is studying some 1,500 alpacas in Puno with Chinese biotech company MGI Tech and Arequipa-based Inca Tops. The export of alpaca fibre fabrics, garments and other products to international markets is said to generate nearly \$200 million for the country each year. “Peru boasts over 85% of the world’s alpacas, totalling five million, establishing us as the primary producer of this sought-after fibre. While facing competition from other textiles in the market, technological advancements aim to enhance alpaca quality, boost demand, industry value, and support highland farming communities,” says UNALM researcher Dr Gustavo Gutiérrez.

### WOOLMARK SALUTES CREATIVITY

German wool spinner Südwolle is the recipient of this year’s Woolmark Supply Chain Award. “We keep investing and exploring new techniques and possibilities, with the development of new technologies, or the creation of new blends with other fibres, to enhance wool’s properties,” says Stéphane Thouvay, Südwolle head of sales. Other recipients of Woolmark’s awards include Pieter Mulier, creative director of Alaïa. He received the inaugural Karl Lagerfeld Award for Innovation for his One Yarn collection featuring a single merino wool yarn in various iterations. Newly appointed creative director for Jean Paul Gaultier, Dutch designer Duran Lantink took home Woolmark’s International prize.

### A SUSTAINABLE PACKAGING SOLUTION

Estonian company Woola has eyed wool as an alternative packaging solution for companies looking to phase out plastics. A new mechanical binding production process, rolled out earlier this year, removes the need to add polylactic acid (PLA) to consolidate the fibres. It also optimises energy use and makes it possible to create 100% wool packaging that will be easier to recycle. This, the company says, is a significant breakthrough for its bubble wrap alternative. A naturally high-tech fibre, wool’s elasticity, ability to repel water, and resistance to temperature extremes are said to make it a perfect cushioning packing material. Woola taps the estimated 200,000 tonnes of wool produced yearly in Europe that cannot be used to make textiles and are therefore incinerated or landfilled.



WOOLA’S BUBBLE WRAP ALTERNATIVE



RECYCLED WOOL INSULATION BY SÜDWOLLE



WINNER OF WOOLMARK’S INTERNATIONAL PRIZE: DURAN LANTINK



PERUVIAN ALPACA



## 2. Cotton, linen and hemp

Natural fibres are prized for their aesthetics and wearer comfort. Subject to climate conditions, they do however pose challenges in an increasingly data-driven fashion industry. A defect for one, will be a charm for another. Clever engineering and modern technologies strive to bring them up to par with the needs of today’s industry.

**‘MILL FRIENDLY’ HEMP PREPARES TO LAUNCH**  
Dubbed “the best kept secret in hemp”, SEFF has been carefully preparing its market launch for the past 15 years. The bast fibre has many inherent qualities, including strength, antimicrobial properties and moisture management, but it is notoriously difficult to spin, and this is where SEFF, a British company, believes it has a game-changing technology to offer. It has developed a system to cottonise hemp that yields



SEFF COTTONISED HEMP

highly uniform fibres, in fineness and length, says Josh Nusenbaum founder and CEO. Often, he says, unless they undergo heavy treatments, no more than 20-25% hemp can be integrated into a fabric due to fibre coarseness and inconsistency. SEFF has patented an environmentally friendly process, Nano Pulse, which uses water and a small amount of energy to separate the fibres, make them fine and soft, without damaging nor shortening them. This makes SEFF hemp “mill friendly”, says Mr Nusenbaum, and usable in up to 70% SEFF blends. The company is now building up a supply chain and targeting a wide array of markets, from apparel to upholstery and to automotive.

### LINEN LARGER THAN LIFE IN PARIS



French department store BHV, located in the centre of Paris, is a long-standing partner of the Alliance for European Flax-Linen & Hemp. This year, the two have decked the department store in spectacular outsized sculptures (dress, handbag, hat) made in... raw linen, what else? “Our intent is to highlight and exalt linen’s natural beauty,” says Marie-Emmanuelle Belzung, head of the Alliance. “Linen may have a minute share of the fashion

market, but its reputation is literally outsized.” The Alliance works with Tagwalk, aka the Google of fashion, to monitor the presence of linen in the collections of 60 brands (the most consulted on the website) across all four major fashion weeks. After a bumper crop in post-Covid 2020, its usage has plateaued. However, its share in upscale fashion is higher (5%) than that in the global apparel market (0.5%).

**DATA UPDATE FOR ORGANIC COTTON**  
The lack of up-to-date data on the environmental impact of natural fibres has led to discrepancies in how they ‘score’ in rating systems such as the Higg Index. A few years ago, the scoring of organic cotton was a point of contention between the Norwegian consumer protection agency and sportswear brand Norrøna. The Organic Cotton Accelerator (OCA), a multi-stakeholder, non-profit organisation based in Amsterdam, has commissioned a new life cycle assessment to provide new data on organic cotton grown in India. It surveyed 18,000 farmers in six Indian states, over a period of three growing seasons and different irrigation contexts (rain-fed, heavily irrigated and hybrid). The results confirm that organic farming has a substantially lower environmental footprint than that of conventional cotton. OCA has stated that it will continue to monitor practices, including fertiliser and water consumption, to maintain data accuracy and provide brand partners with verified claims for their Scope 3 GHG reporting.



ORGANIC COTTON SOURCED BY TEEMILL UK

**CANCLINI1925, BETWEEN HERITAGE AND MODERNITY**  
Originally a silk specialist, Canclini1925 switched to cotton in the 1970s and has since added linen, manmade cellulose, certified organic and recycled fibres in its collections. These span many market segments, from women’s wear (Per Lei), luxury shirting (Grandi & Rubinelli) and casual denim (Blue1925). Its best-selling references are available on stock (Continuativi). The socially and environmentally responsible firm is currently preparing its first sustainability report. Also seeking to promote textile making across the ages, Canclini1925 recreated a full-scale replica of Leonardo da Vinci’s loom based on his original drawings. One model is kept in its headquarters in Guanzate, Como, and a second one was donated to the Museum of Science and Technology in Milan.



CANCLINI 1925

## 3. Local thinking

Farm-to-fashion initiatives and setting up shorter supply chains, synonymous with responsible manufacturing, are driving new projects in Italy and across Europe to support producers of high-end fabrics.

**ENTIRELY ITALIAN WOOL BY LANE DI PRATO AND PURAE**  
Intent on minimising its impact by favouring local sourcing, Lane di Prato has partnered with Purae to establish a wholly Italian supply chain for Gentile di Puglia wool. This breed of sheep produces fine fleece and is the result of a cross with Spanish merinos in the 15th century. Fibre production and fabric manufacturing meet the highest animal welfare and environmental standards including reduced water and energy consumption, and carbon dioxide emissions. The fully transparent and traceable supply chain enables fabrics to be traced



LANE DI PRATO X PURAE

back to a specific batch of wool. The interest shown by several brands has inspired Lane di Prato to present the collection at Milano Unica this July.

**FASHIONART INTRODUCES 100% MADE IN ITALY UNICO**  
Seeking to offer its clients a fully traceable supply chain for cotton, Fashionart’s latest project, Unico 100% Made in Italy, is a novel organic cotton seed-to-store concept. Farmers involved in the programme use advanced drip irrigation systems to ensure the sustainable use of water, minimise waste and reduce their environmental impact. The GOTS-certified fabrics are made by Italian spinners, weavers and dyers. The local supply chain guarantees not only high-quality fabrics but also ethical and sustainable practices. The cotton used includes long Pima and shorter fibre cotton, to create varied textures.



UNICO BY FASHIONART

**NILIT LAUNCHES CURATED SENSIL SIGNATURE RANGE**  
Nilit, producer of Sensil branded polyamide yarns, has launched a new family of fabrics made by high-end European mills. They are given access to premium polyamide yarns that adhere to stricter standards for water conservation, reducing



SENSIL SIGNATURE BY NILIT

carbon emissions and minimising waste. Sensil Signature yarns are also said to be stronger and softer while offering inherent performance features such as odour control, moisture management and ease of care. “With Signature, we aim to inspire global brands with a highly qualified and articulated

programme that brings together the excellence of European textile production with the innovative approach of our Sensil yarn. A kind of textile ‘dream team’, united to redefine modern luxury, both real and perceived,” says Michelle Lea, Nilit’s head of marketing and sustainability. She adds that the collection is designed “to spark curiosity and establish Sensil as a trusted partner in shaping modern luxury”.

**SOORTY EXPANDS FARM-TO-FASHION COTTON**  
Denim maker Soorty is expanding the scope of its programmes to support organic and regenerative cotton farming in Pakistan. It has achieved a new milestone by becoming the first private-sector company in the country to join the Organic Cotton Accelerator’s non-GMO seed programme. This has been made possible by the creation of a new in-house seed testing laboratory at Soorty. The company also plans to implement a digital traceability system with geolocation with SAWie (UK). Another way the mill supports a shorter and more efficient supply chain is by keeping cotton in the loop with Second Life, its label for denim fabrics made from recycled post-industrial and post-consumer cotton.



SOORTY ORGANIC COTTON INITIATIVE



4. Biotech textiles

Fermentation processes are viewed as a more sustainable way of producing biobased raw materials and depolymerising end-of-life textiles. From biotech dyes to new protein fibres, some of these are now commercial.



material, calls on precision fermentation, which company founder, Melik Demirel, says is more expensive to produce. Ahead of a future launch with a brand partner, Tandem Repeat has released a limited run of sweaters under the label Sonachic to showcase the potential of Procell. This fibre, which is ready for industrialisation, is stronger than wool and half the price, making it one of the rare next-gen fibres to have broken the cost barrier. Tandem Repeat is seeking funds for the construction of a production plant with a capacity of 7,000 tonnes, to be operational in 2027.

**NEW BIOTECH NYLON IN THE WORKS FOR LULULEMON**  
Canadian fitness and athleisure brand Lululemon is partnering with ZymoChem, a biotech start-up based in California, to develop a biopolyamide through fermentation. This ‘multi-year collaboration’ should lead to the production of a biobased version of adipic acid, a key building block for nylon 6.6. “What truly sets ZymoChem apart is its technology, which is capable of producing a biobased material to create sustainable nylon 6.6 that provides the same look, feel and quality expected from our high-performance products,” says Yogendra Dandapure, Lululemon’s head of raw materials innovation. The brand is creating ‘multiple pathways to

transition to sustainable materials’ as it has also partnered with Australian biotech company Samsara Eco that is working on a depolymerisation method for nylon and polyester.

**INDUSTRY ADOPTION OF OCTARINE BIO’S PUREPALETTE**  
Danish biotech company Octarine Bio is making good progress in the market adoption of its dyes made through precision fermentation. British designer, Patrick McDowell, and Danish brand, Samsøe Samsøe, both featured items dyed with PurePalette colours in their 2025 collections. Positive Materials, a division of global sourcing group PDS, has also integrated the low-impact dye in its concept collections, which were on show in Première Vision’s Smart Creation section. Compared to conventional dyeing systems, Octarine Bio claims that its PurePalette dyes lead to significant savings in water and energy (up to 61%), carbon emissions (up to 69.5%) and lessens human toxicity potential by up to 70%.



**SEED FUNDING FOR BIOTECH INNOVATORS**  
Solena Materials, a spin-off from Imperial College London based in London, has announced the successful completion of a seed funding round, raising €6 million to develop a biotech protein fibre. It intends to use the capital to expand its facility and plans to launch with a partner brand within the next three years. Evoralis, a spin-off from the University of Cambridge’s Hollfelder Lab, is developing an enzyme-based recycling method and has recently raised nearly €3 million in seed funding. It believes it has developed a faster method of identifying enzymes that can break down textiles and plastics.

5. Prints & customisation

From scouting out tomorrow’s textile designers to offering flexibility and customisation thanks to cutting-edge machinery, the details often make the difference in fashion.

**PROMOTING TOMORROW’S TEXTILE DESIGN TALENTS**  
TEX+, an annual competition for emerging textile designers, is an evolution of the long-established Texprint platform, which has taken on an expanded role as a newly registered charity. British university tutors are invited to nominate 20 final-year BA and MA students. Entrants are judged on a series of criteria and can submit works in five categories: print, weave, knit, mixed media or concept. The organisation says that, in its former Texprint iteration, it helped launch the careers of many talented designers, including Margo Selby and Emma J Shipley, the founders of Wallace+Sewell, and Quinton Chadwick. “We’re excited to see what this year’s students will bring. Last year’s cohort amazed us with their creativity, innovation and technical skill. It has been incredible to see their journeys continue with internships at Liberty and Pentland Brands, and roles at global names like Chanel,” enthused Prof Clare Johnston, trustee.

**CUSTOMISED HIGH-END DETAILS**  
As much as an accessory maker, Officina 3 also considers itself a customiser. Working in fashion, footwear and leather goods for over two decades, it is now seeking to branch out into new markets in the design, automotive, eyewear and even nautical sectors. Its facility, located in Padua, is equipped with state-of-the-art machinery for digital and sublimation printing, screen printing, bonding, engraving, laser marking and cutting. It has an embroidery plant in the vicinity and works with partner manufacturers to offer microinjection and injection printing services. All products are made in Italy offering complete process transparency as well as reduced emissions, resource recovery and safe waste disposal. Officina 3’s environmental responsibility extends to the use of certified, recyclable and biodegradable materials.

**EXCELLENCE IN ELASTIC TAPES**  
A supplier to the fashion, activewear, footwear and sportswear sectors, Nastrotex Cufra prides itself for its long-standing dedication to providing its customers the highest performing



elastic solutions. “Each tape is the result of precision craftsmanship applied to materials engineering. Whether it’s a technical detail for a trail-running shoe or a fashion element in a couture collection, our production is designed to meet the specific needs of every designer,” the company says. With its in-house R&D department, it stays a step ahead of market trends by testing and assessing new fibres and finishes while continuing to develop novel elastic constructions. This allows the company to offer a wide array of fully customisable solutions in varying structures, colours, textures and functions. For those seeking the perfect balance between textile technology, contemporary aesthetics and sustainability, Nastrotex Cufra believes it is the ideal partner, as it can, in its own words, “give elasticity to the ideas of creatives worldwide”.

**KYOCERA ALL-IN-ONE PRINTING SYSTEM**  
ForEarth, a printing system developed by Japanese digital print specialist Kyocera, is said to enable greater creativity and adaptability while offering essentially water-free colouring. The device reduces the number of processing steps down to just two: printing and drying. It includes an integrated system for filtering and recycling cleaning water used for the conveyor belt bringing down water consumption to a mere 0.02 litres per kilogramme of fabric. Kyocera has developed proprietary pigment inks, pretreatment liquids and finishing agents that can be used on cotton, silk, polyester, nylon and blended fabrics, eliminating the need to change chemicals for different fibre compositions. ForEarth furthermore addresses the issue of overproduction and excess inventory by making it possible to print only the required amount.

