# KNITTING TRADE JOURNAL

May / June 2021

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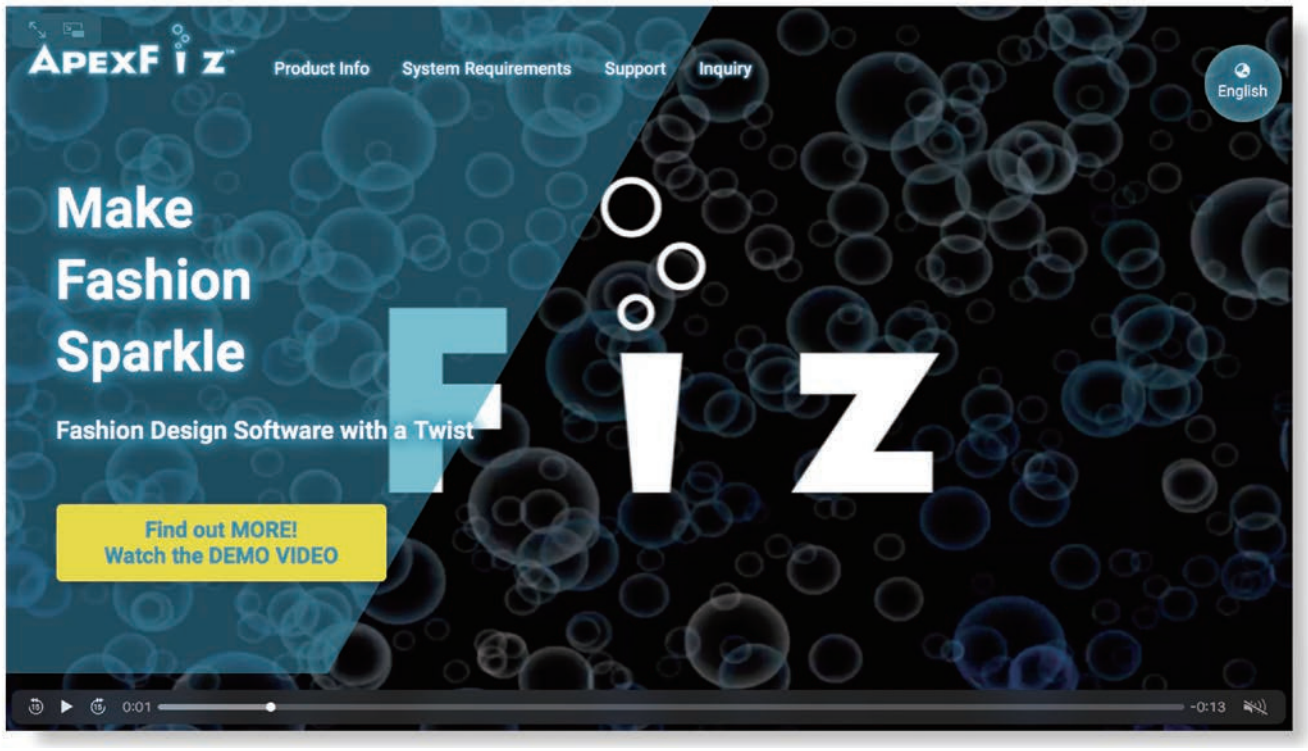


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*or access the following link:*
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## News Reports



## Features



## Every issue







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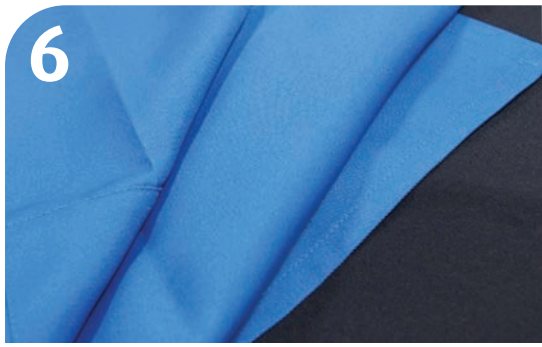


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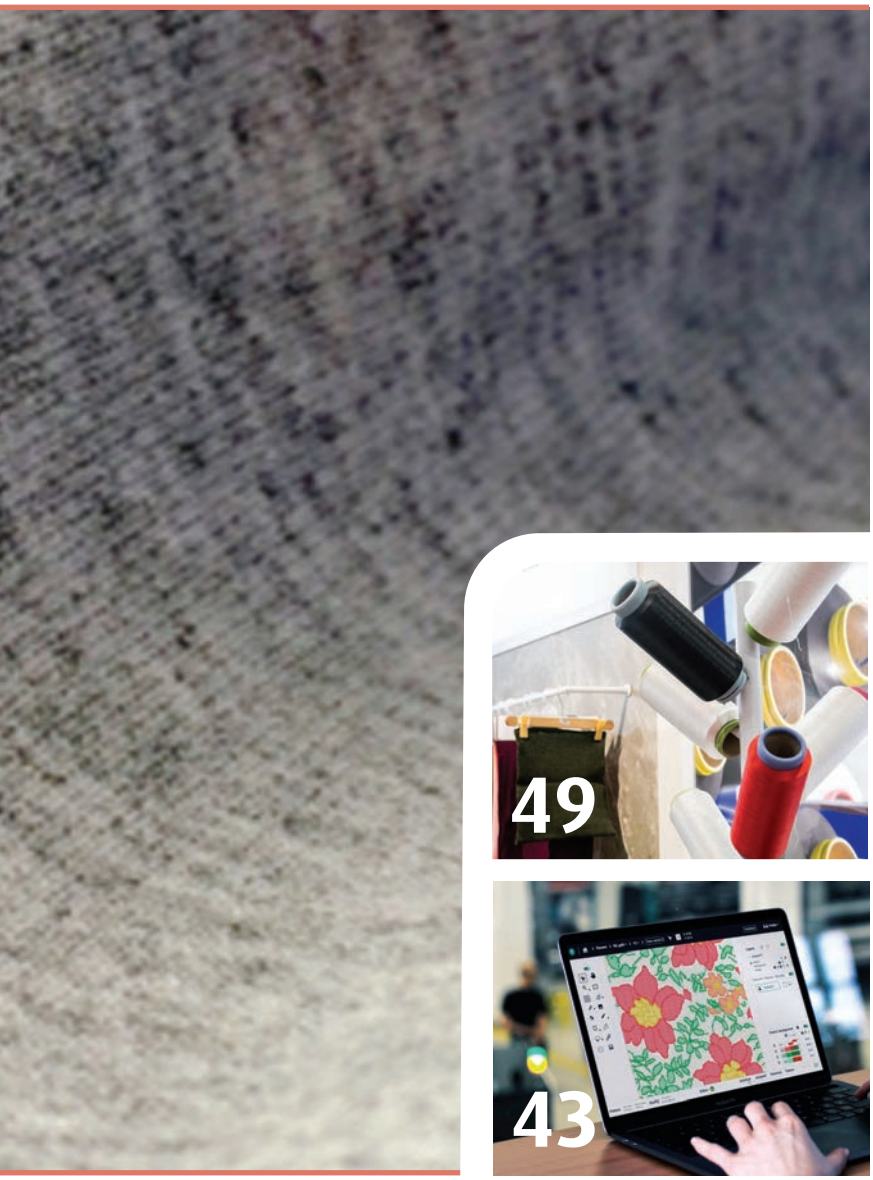









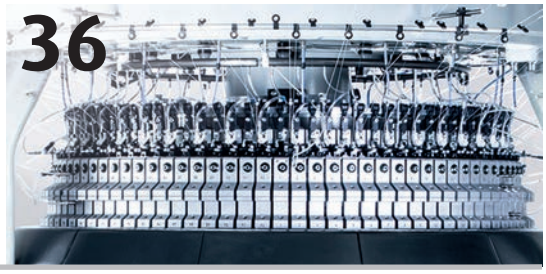


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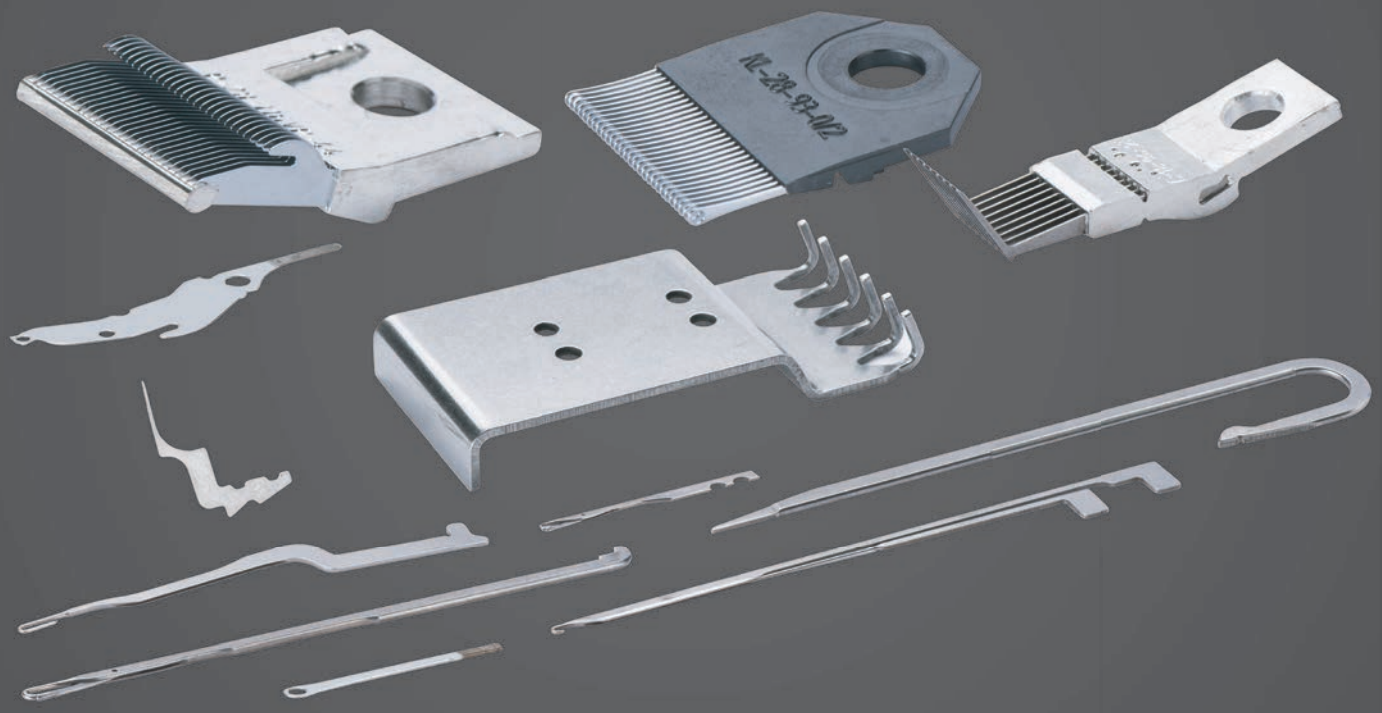
TEXTILE



# BECAUSE QUALITY NEVER GOES OUT OF FASHION

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# New technology can underpin recovery

Although we approach this year's ITMA Asia + CITME exhibition against a pandemic-infused, backdrop of uncertainty for the global textile market, it is also apparent that the air is carrying with it a whiff of fresh optimism.

Different regions are at different stages of their fight against Covid-19. Some are slowly emerging from lockdown whilst for others, fresh waves of the virus continue to wreak havoc.

But despite the ongoing Covid-19 challenge, the seventh edition of the combined exhibition will take place in June amid an industry that is desperate for a kick-start and a return to normality.

The show itself is expected to feature a gross exhibition space of 170,000 square metres. To-date, it has attracted the participation of 1,500 exhibitors, including many established machinery manufacturers from 24 countries.

This is an encouraging sign. The pandemic has created pent-up demand for quality machinery for sectors such as knitting and hosiery, particularly as there was a lack of sales and marketing opportunities last year.

As retailers and brands begin to welcome back their customers, eager to spend, so in turn are the machinery manufacturers eager to reconnect with the market.

With many travel restrictions still in place, this year's show may be limited in terms of the usual international visitor ship one usually associates with ITMA Asia + CITME. Still, this should not deter technology suppliers from feeling confident about the amount of business they hope to do. Most of the buyers will be China-based but, with the country's economy continuing to boom in April from the record growth in the first quarter, with strong exports and rising business confidence supporting the recovery, machinery manufacturers should be confident of a solid show.

It should be noted that some of the strength being shown may be exaggerated by the comparison with April 2020, when China was still struggling to recover and reopen after a lockdown to contain the world's first coronavirus cases. However, on the whole, Bloomberg reports that confidence among small and medium-sized enterprises has picked up for a second consecutive month, with the rise in expectations pointing to an even stronger performance in the current quarter compared to the first three months of the year.

Interestingly, export-oriented SMEs are continuing to outperform domestically focused businesses, with faster production and higher output price gains, helped by the removal of restrictive measures and the vaccine rollout. Moreover, with measures put in place by the Chinese government in 2018 to help during the trade war with the US, which included spending to boost infrastructure construction and credit to smaller firms as well as tax cuts, finally trickling down, companies are well placed to invest as they look to meet export demands.

This is an extremely encouraging backdrop with the staging of ITMA Asia + CITME representing a welcome and much-needed fillip for our industry and, hopefully, a resolute sign of the first steps back to normality.

**Haydn Davis**
Editor
hdavis@mclnews.com

## What's hot on knittingtradejournal.com – our most popular online stories

### New design lab for Flyknit

London –Nike's Flyknit system is to benefit from a new, London-based textile design laboratory, which will develop and explore new application technologies for functional footwear and apparel innovations.

### Boost for recycled knits

Espoo – Infinited Fiber Company, which is working with a number of leading brands on the production of recycled knitwear, is to build its first commercial plant for Infinna regenerated fibres in Finland.

### New season feature for yarnbank

Wakayama - Shima Seiki has created a special online resource featuring new and recommended products for spring/summer 2022 by yarn manufacturers participating in the digital yarn sourcing web service 'yarnbank'.

# Gloomy quarter for Italian machinery market

Milan - Sales of Italian textile machinery for the fourth quarter of 2020 were down 5 per cent compared to the same period in 2019. The latest figures from ACIMIT, the Association of Italian Textile Machinery Manufacturers also show that the index value remained at 90.0 points (2015 basis = 100).

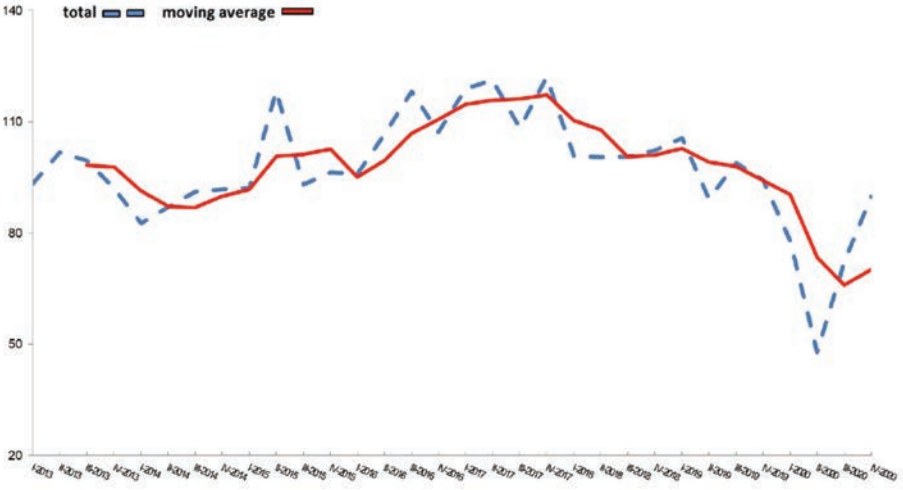
The negative trend both abroad and in Italy has weighed on the overall result, ACIMIT said. Overseas orders were down 5 per cent while the domestic market recorded a decline of 6 per cent for the October to December 2020 period compared to the previous year.

On an annual basis, the total index declined by 26 per cent compared to 2019. This result was primarily due to a marked downsizing in orders intake for the first half of the year, which was not entirely balanced by the progressive recovery in the last two quarters of 2020. The decrease amounted to 25 per cent of exports and 30 per cent on the domestic side.

Commenting on the results, ACIMIT president Alessandro Zucchi said: "Severe travel restrictions along with the cancellation of most trade fairs, as evident consequences of the pandemic, have heavily influenced business operations, already compromised by a general slowdown in investments in the textile sector.

"A deep sense of uncertainty also affects 2021, with no signs of a recovery in this first half of the year. The vaccination campaign has begun slowly, jeopardizing the restoring of safety conditions that would otherwise enable technicians and salesmen to travel. We do expect a partial recovery, but only as of the second half of the year."

**ITALIAN TEXTILE MACHINERY. THE INDEX OF ORDERS INTAKE AT CONSTANT VALUE (BASES 2015=100).**




# Hayleys to acquire South Asia Textiles

Colombo - Hayleys Fabrics, a subsidiary of Hayleys group has bought a 98.84 per cent stake in Sri Lankan circular knitter, South Asia Textiles Limited.

The 3.953 billion rupees (US$28 million) deal includes a 97.68 per cent stake from publicly traded Ambeon Holdings Limited and a further 1.16 per cent from a minority shareholder.

Over the last few years, South Asia Textile has embarked on an overhaul of its machinery portfolio with an investment of more than Rs 1 billion (around US$7 million) which has included the latest knitting technology from Italy's Santoni and Singapore's Unitex. New printing and finishing equipment from Stork, Santex and Fong's has also been added.

The company currently produces around 800,000kg of fabric per month including dyed fabric, printed fabric and brushed /suede fabric of yarn dyed fabric. Fabric types include 100 per cent cotton, 100% polyester, cotton/polyester blends and spandex. At the moment, the plant operates 115 circular and eight flat knitting machines with about 60 per cent double jersey machines and the remainder single jersey.

With customers that incudes a number of the world's leading brands, such as Victoria Secret PINK, Next, Marks & Spencer, PVH/Calvin Klein and Columbia Sportswear, Hayley's will use the acquisition to expand its exports of higher value added fabric.

# Bangladesh mills to remain open during lockdown

Dhaka - Knitting mills across Bangladesh will continue to operate during the country's new Covid-19 lockdown following a plea from the Bangladesh Knitwear Manufacturers and Exporters Association (BKMEA).

With the industry key to the national economy, the Bangladeshi government agreed with concerns over closures, which also came from the Bangladesh Garment Manufacturers and Exporters Association (BGMEA) and the Bangladesh Textile Mills Association (BTMA).

The government has decided to allow factories to run during the lockdown, which began on 14 April following a spike in COVID-19 cases.

Faruque Hassan, president-elect of the BGMEA, confirmed the decision to allow all export-oriented industries to remain up and running during the new lockdown.

BKMEA vice president Fazlee Shamim

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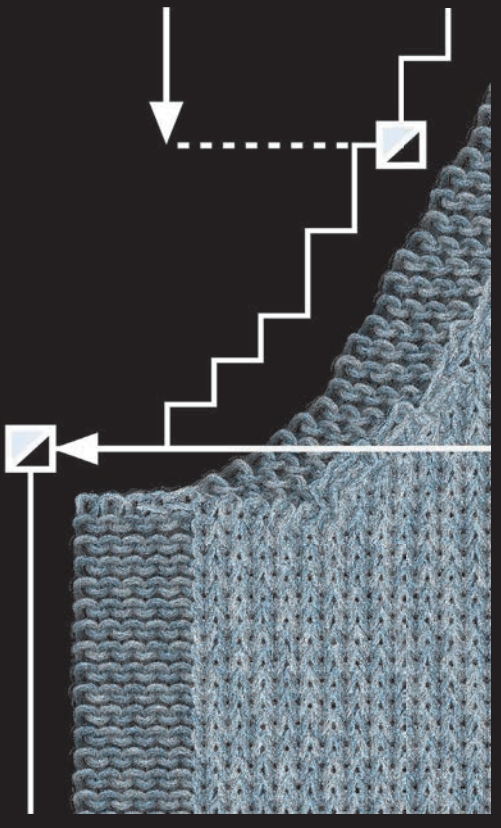

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Ehsan told journalists: "Hygiene rules will be maintained strictly in the factories. Workers, who live far from factories, should be provided transports.

"Owners will bear the medical cost if any worker falls sick during the time. Covid-19 tests will be carried out at BGMEA's own labs in Dhaka and Chattogram if any worker found with symptoms."

Except for emergency service providers, all government, semi-government and private organisations, shops and markets are supposed to remain shut during the lockdown.

Textile and garment manufacturers and exporters warned that a lockdown would cause them huge losses, as they would fail to meet shipment targets, and feared orders would be lost to other countries.

Bangladesh is the world's second biggest garment manufacturer and the industry accounts for around 85 per cent of the country's annual exports.

Mohammad Abdus Salam, acting president of BGMEA, said: "The garment suppliers have been struggling to recover the losses they incurred during the first wave of the pandemic."

Amirul Haque Amin, president of the National Garment Workers Federation, said keeping garment factories open would be to the benefit of both workers and factory owners.

"However, factory owners and the government will have to maintain adequate safety measures so that the workers are safe," he added.

# Karl Mayer hi-tech solutions for Asian market


Obertshausen - Knitting machine builder Karl Mayer will offer a range of new developments with a key focus on digitalization at this summer's ITMA Asia + CITME exhibition.

Located in Hall 4, Stand A 32 at the show, which takes place in Shanghai from 12-16 June 2021, the company will offer digital solutions for all its machine segments, enabling customers to benefit, its says, from unprecedented flexibility, efficiency and, above all, independence.

These digital trendsetting offers will be the focus for each of the three major brands in the expanding Group: Karl Mayer, KM.ON and, the most recent addition, flat knitting machine manufacturer, Stoll.

For the first time in Asia, Karl Mayer will be exhibiting machines from both the warp knitting and flat knitting sectors.

"The upcoming ITMA Asia + CITME is a very special trade show for us in two respects," Arno Gärtner, CEO of the Karl Mayer Group said. "After a long pause in face to face communication, we are looking forward to exchanging ideas with our customers in person again in China, our most important market."

He continued: "In addition, this is our first trade fair appearance together with Stoll. Visitors from both the warp knitting and flat knitting sectors, as well as from the warp preparation and technical textiles sectors, will be able to find out all about the opportunities for new business, stronger market positions and optimized production processes."

On show at the exhibition will be an HKS warp knitting machine, two machines from Stoll's ADF family and a new flat knitting machine for the volume market. All models are said to offer unique possibilities thanks to digital features that keep the customer one step ahead when it comes to modern production processes.

For visitors from the field of weaving, Karl Mayer will also be exhibiting the Isodirect beam-warping machine, which offers an excellent price-performance ratio.

KM.ON, which was founded by Karl Mayer to develop pioneering digital products, will on hand to showcase new and enhanced digital solutions that are highly effective in helping customers enhance their operation performance.

The possibilities afforded by digitalization are also a pillar of Care Solutions, Karl Mayer's new concept for an even greater comprehensive, focused and solution-oriented after-sales service. Part of this offering is the Spare Parts Webshop procurement tool which is already well established on the market and can now also be used to procure electronic lapping data. The SwapKnit 36 and SwapKnit 36 Flat have been developed for this purpose and will also be presented at ITMA Asia+ CITME.

Visitors will also be able to see an exclusive textile and application demonstration on the stand which has been created to open up new market opportunities. Highlights include high-performance geotextiles and construction textiles for manufacturers of technical textiles, on-trend warp knitted fabrics for brands and fabric producers from the sportswear, underwear and fashion sectors, and denim fabrics through which Karl Mayer demonstrates its strength in indigo dyeing.


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# Smartwool wants your socks

Denver - Smartwool, the manufacturer of merino wool activewear, says that socks will play a key role when it comes to meeting its strategic goal of making all products circular by 2030.

The Denver, US-based firm has launched the Smartwool Second Cut Project which is designed to give products a "second cut" at life and will help create a more circular supply chain that extends the life of raw materials, presents a new sourcing stream, and reduces environmental impact.

The project represents a significant pillar of the brand's newly defined 10-year social impact goals and will be launching with an Earth Day timed sock take back event.

Although awareness around the importance of apparel circularity is growing with consumers, Smartwool says that socks are one of the most thrown-away pieces of apparel. This may in part be due to a lack of understanding — a recent Smartwool survey showed that while over 80 per cent of respondents recycle their used clothing, they don't engage the same way when it comes to socks as 46 per cent are unaware of how to recycle them, resulting in 91 per cent throwing away more than one pair of socks per year. This contributes to the larger circularity problem with textiles as a whole, which contributes about 11.3 tons of waste to landfills each year.

Given there is a gap in recycling textile articles like socks, and more than 97 per cent of consumers are interested in recycling them, Smartwool has developed a way to move the needle towards a more circular economy, starting with socks.

"Through our research, we realized that consumers want to be more sustainable and recycle their socks, but don't currently have the resources to be a part of the solution," said Alicia Chin, senior manager sustainability and social impact at Smartwool. "We are deeply invested in providing consumers with simple recycling solutions that make a difference towards a happier, healthier planet. While our goal is to reach total circularity across our product portfolio, there is obviously an urgent need for a recycling solution in the sock category, which is where we're focusing our initial efforts."

Smartwool is partnering with Material Return, a platform for custom circularity, on the Second Cut Project sock take back event. Starting on April 21st, Smartwool will collect used socks from any brand at specialty retailers across the US and online. These initial donations will be re-purposed into a filling for dog beds, which will be available for purchase at Smartwool.com during the 2021 holiday season.

"We're excited to work with a brand like Smartwool that exemplifies the same environmental values as we do," said Molly Hemstreet, Co-Executive Director at Material Return. "We also want to thank all our manufacturing partners who helped make it possible—especially the Carolina Textile District and Diamond Brand Gear. Through the Smartwool Second Cut Project sock take back event, we're giving consumers an opportunity to support both environmental sustainability and innovative labor practices."

# Mr Mitsuhiro Shima takes part in Olympic relay

**Wakayama - With less than 100 days to go until this summer's Olympic Games, the famed Tokyo Olympic torch relay is now underway and one of the knitting sector's most renowned companies is playing its part.**

**With the ceremonial relay held in Wakayama prefecture for two days, Mitsuhiro Shima, the president of computerized knitting machine specialist Shima Seiki, was asked to run part of the course, a request which recognised the high regard for the company across the region.**

**On the first day, the torch, which arrived from Mie Prefecture traveled north on the Kii Peninsula from Shingu City to Wakayama City, and on the second day, it ran through the Kinokawa River from Shingu City to Hashimoto City.**

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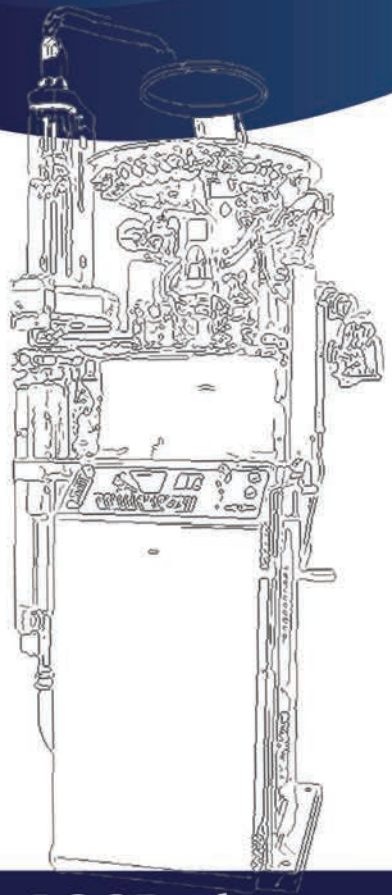

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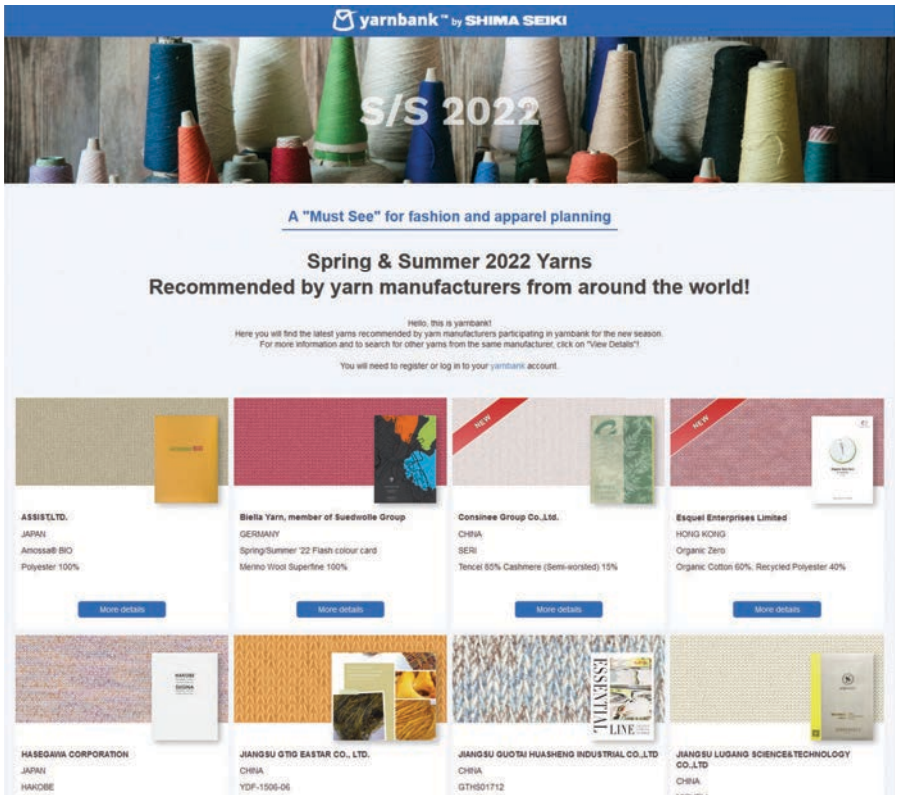
# Shima Seiki new season feature page for yarnbank




Wakayama - Flat knitting solutions provider Shima Seiki has created a special online resource featuring new and recommended products for spring/summer 2022 by yarn manufacturers participating in the digital yarn sourcing web service 'yarnbank'.

With recent difficulties in holding or participating in physical trade fairs and exhibitions related to yarns and materials, as well as implementation of new work styles such as teleworking and telecommuting, digitalization in all processes from product planning and sourcing to production and retail sales has become an urgent issue, the company notes, forcing changes in the way information is collected and products are promoted.

The new yarnbank Spring/Summer 2022 Feature Page connects yarn manufacturers with designers, brands and apparel companies online as an alternative to meeting face-to-face and researching and presenting yarns at physical exhibitions.

Moreover, when business conditions improve in the future, yarnbank will continue to present such features to meet the needs of customers looking for new discoveries by complementing existing trade fairs.

yarnbank is the world's first online web service for searching and viewing the latest yarns, developed in cooperation with yarn companies from around the world. Registered users have free access to the yarnbank archive of yarn information and digital yarn data. Users can also download yarn data for free, for use in fabric simulation and virtual sampling on Shima Seiki APEXFiz and SDS-ONE APEX4 design software, avoiding the need to scan yarn on their own. By using yarn that is used in actual production, knit manufacturers and apparel companies can furthermore rest assured that the simulations created using yarnbank are not merely realistic images but accurate representations using yarn that can actually be purchased and used in production.

yarnbank also serves as a new promotional platform for yarn companies with the opportunity to present their yarns directly to their customers. In that respect, yarn companies can reduce their dependence on traditional sample books as a means to promote their products, saving time, cost and material and doing their part for sustainability. yarnbank is designed to bring together each player in the supply chain—spinner, knit manufacturer and apparel company—and to connect them digitally.

Shima Seiki has also confirmed the release of its new APEXFiz subscription-based design software which, the company says, is intended to aid in the digital transformation of the fashion industry.

APEXFiz is the latest addition to Shima Seiki's proven SDS-ONE APEX series design system lineup, but with an unprecedented twist. Whereas previous APEX-series design systems were offered as an all-in-one proprietary hardware/software package, for the first time in its nearly 40 years of design system development, Shima Seiki has released its new APEXFiz as subscription-based design software that can be installed on customers' individual computers.

Maintaining proven functions that have made the APEX series so popular with fashion designers, with APEXFiz those strengths are now enhanced with the added versatility to adapt to different work styles and business environments of the "new normal," including teleworking and telecommuting. APEXFiz is furthermore available in 5 different product variations that can be selected according to the customer's needs, from APEXFiz Design Jr. to APEXFiz Design Pro.

APEXFiz software supports the creative side of fashion from planning and design to colorway evaluation, realistic fabric simulation and 3D virtual sampling. Otherwise known as "digital twins," virtual samples are a digitized version of sample making that allows visual confirmation of garment designs without the need for knitting physical samples.

For further details on yarnbank, go to *https://www.shimaseiki.com/yarnbank/special/2022ss/*

# Hanesbrands recognised with environmental stewardship award

Winston-Salem - Activewear and sock manufacturer Hanesbrands has earned its 12th consecutive U.S. Environmental Protection Agency Energy Star Sustained Excellence/Partner of the Year award for continued progress in environmental sustainability.

HanesBrands is being recognized by the EPA for lowering overall energy use, while increasing use of renewable energy and electricity during 2020. The company also launched aggressive 2030 sustainability goals, including reducing energy use by an additional 25 per cent, using 100 per cent renewable electricity and launching science-based emission reduction targets. Additionally, the company appointed its first chief sustainability officer in 2020.

"We're incredibly proud to remain the only apparel company to earn sustained excellence honors in the U.S. EPA Energy Star program's 29-year history," said Chris Fox, HanesBrands chief sustainability officer. "HanesBrands and its 61,000 worldwide associates are deeply committed to sustainability and operating our company as if every day is Earth Day.

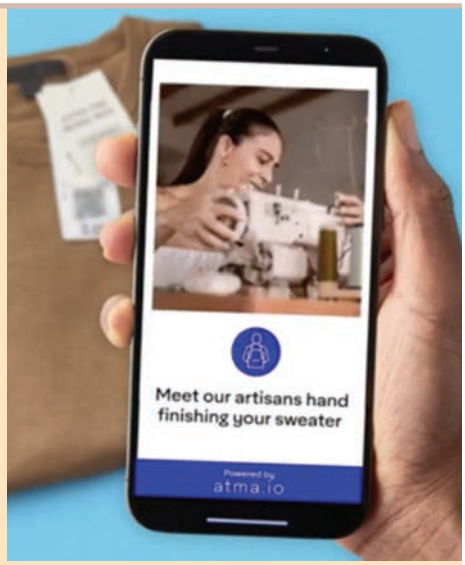
"But there is much more work yet to do," Fox continued. "We are intensely focused on pursuing ambitious 2030 goals that will improve the lives of people, protect the planet and produce sustainable products."

The Energy Star award follows the February announcement that HBI was one of two apparel manufacturers named one of Ethisphere's 2021 World's Most Ethical Companies. Also in February, the company was named to Barron's 100 Most Sustainable Companies for the third consecutive year.

HBI was one of four apparel manufacturers to receive "A List" recognition for leadership in corporate sustainability in the CDP 2020 Climate Change Report issued in December 2020.

Energy Star was introduced by the EPA in 1992 as a voluntary, market-based partnership to reduce greenhouse gas emissions through increased efficiency. The annual Energy Star Partner of the Year award honors organizations that have made outstanding contributions to protect the environment through best practices and organization-wide energy savings.

# Avery Dennison unveils new digital tracking system




Glendale - Avery Dennison has launched a new digital platform, which, through the use of 'intelligent labels' allows users to instantly track products throughout their journey through the global supply chain.

atma.io is described as a 'connected product cloud: an end-to-end platform capable of creating, assigning and managing unique digital identities for every physical item in the world.'

According to Avery Dennison, the system completely reimagines how supply chains operate, how brands connect with individual consumers, and how global organizations can achieve their sustainability and transparency goals. Currently, atma.io manages over 10 billion unique items and adds over 50 new connected products to the platform every second.

Designed to be open, easily integrated and highly flexible, atma.io addresses the issues of supply chains using different digital triggers on products, such as UHF RFID, NFC or even QR codes, by enabling all item-level events and product data to be connected in a single platform.

Unveiling the new system, Francisco Melo, vice president and general manager, Avery Dennison Smartrac, explained how atma.io was designed to help fill the gap in the market for item-level visibility. "It's the expression of our Intelligent Labels vision: a platform that connects physical and digital worlds by assigning unique digital IDs to everyday items," he said. "With atma.io, Avery Dennison is now able to bridge both worlds by coupling our progressive family of digital triggers and labeling technologies with the power of data in our atma.io platform all the way to the 'wafer' level."

Melo also said that businesses will benefit from the ability to 'join up' their supply chain. Brands can accurately communicate how a product is made and can launch new business models like recommerce, peer-to-peer commerce, and direct-to-consumer. Consumers can check everything from product provenance and authenticity to details about care and content instructions for apparel items, obtain expiry and recall information for perishable products, and enjoy unique consumer experiences based on the specific context of each product interaction.

An early adopter of atma.io is German sportswear giant Adidas, which says it's particularly helped scale its buy-back initiative by establishing an oversight of their products past their supply chain.

As well as being chosen for multiple scaled implementations by global brands and retailers, atma.io is also being used for food supply chain traceability and developed for real-time temperature monitoring for individual COVID-19 vaccine vials.

Max Winograd, vice president, connected products, Avery Dennison Smartrac and co-founder of atma.io, added: "The atma.io team has launched the connected product cloud purpose-built for today's world of rapid disruption and digital transformation. Our north star is trust and a more sustainable and connected world. Our platform is designed for anyone to build on top of atma.io to enable every use case for connected products throughout every industry and every step of the value chain."

# Sateri to expand Lyocell capacity

Shanghai - Sateri, the world's largest viscose fibre manufacturer, is to expand its Lyocell production capacity in China. The company has set a target of producing an additional 500,000 tonnes a year by 2025.

The strategy will see Sateri establish sites across the country's Jiangsu province, with work already underway on a 100,000 tonne facility in Changzhou.

Tom Liu, Sateri's vice president and general manager of Lyocell and Nonwovens, said: "The new expansion plans will enable us to extend our domestic and international market reach and provide our customers with high quality and comprehensive fibre products. At the same time, we will invest in technology improvement, application development, and brand collaboration to bolster the industry."

Having first forayed into China's Lyocell market just last year, with the creation of a 20,000 tonne production line in Rizhao, Sateri is keen to further assert itself in the country.

The first phase of its expansion will see the company establish a site in Changzhou, before a facility – also capable of producing 100,000 tonnes of Lyocell annually – is erected in Nantong.

The project underway in Changzhou is expected to be completed by next year, with it expected to be operational by the third quarter. This, Sateri says, will create more than 800 jobs in the country.

Scaling the production of Lyocell, which is made from wood pulp sourced from certified and sustainable plantations, aligns with the firm's 2030 development goals, which it detailed in November.

Amongst the firm's targets is ensuring it emits net-zero emissions by 2030 and that its viscose products integrate 50 per cent recycled content by 2023.

"Sateri's continued investment in Lyocell not only responds to the changing needs of the market and the textile industry but also supports China's green development plans," noted company president, Allen Zhang.

"It is also very much a part of our commitment to sustainable development where we actively seek to adopt a circular economy model through clean and closed-loop production technology and innovation."

# New design lab will enhance Flyknit potential

London – Nike's Flyknit system is to benefit from a new, London-based textile design laboratory, which will develop and explore new application technologies for functional footwear and apparel innovations.

Initially unveiled in February 2012, the technology has allowed Nike to create light, flat-knitted uppers with different structures for different areas in polyester yarn, with varying elasticity, thickness and strength.

Now, Nike has told Dezeen that its new London studio will help further advance the application potential of such technologies.

Speaking about the opening of the London studio, John Hoke, president of global design at Nike, told Dezeen: "We're looking at waft, depth, materiality, and just trying new stuff. Through that trying we're getting a lot of great things.

"The London [studio] is relatively new. We decided to be creative and open up a studio that lets our young British designers stay in their home country and explore and experiment."

Nike recently made a major breakthrough in the development of its Flyknit footwear by digitally engineering the 360-degree construction of the shoe uppers. Produced on Stoll flat knitting machines, the new design helps to create lighter, formfitting footwear whilst cutting back on waste by around 60 per cent.

Flyknit technology is said to have already redefined the development and creation of footwear with its ability to be engineered to provide a more precise fit for the specific needs of the foot.

Using the latest flat knitting techniques, support and structure are knitted directly into items, which helps reduce seams, weight and areas of friction, and keeps the items lightweight.

When the Flyknit technology was first launched, the uppers were created by knitting a flat fabric that was then attached to the midsole to produce a conventional fitting shoe. Now, however, Nike is using the latest in digital technologies to pre-determine the mould of the entire, 3D knitted shoe upper which is then attached to the sole to offer a more secure fit. Engineers use complex knitting structures to achieve this, monitoring closely the anatomical form of the fabric and how it mimics the shape of the foot.

The shoe upper is then subjected to a process of thermoforming, which provides shape and support underfoot,

enhancing breathability whilst offering a 'second-skin feel', the company claims.

Recently, Flyknit technology has also expanded into the apparel category including the production of sports bras which, using the latest knitting techniques, has a reduced number of seams, weight and areas of friction.

In 2017, the company also combined body-mapping design techniques with the latest flat knitting technology to create a capsule collection that uses performance data collected from athletes, resulting in high-performance garments that provide extra ventilation and coverage where needed.

# Culp joins Sustainable Furnishings Council

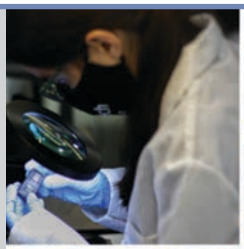
High Point - US circular knitter Culp, Inc is strengthening its commitment to environmental sustainability by joining the Sustainable Furnishings Council.

The SFC is a US-based independent, non-profit coalition of furniture industry manufacturers, retailers, and designers dedicated to raising awareness and promoting the adoption of environmentally sustainable practices in the home furnishings industry.

As the only publicly traded textile company to join the SFC, Culp said it hopes to use its membership to increase the company's integration of best practices and affect positive environmental and social change as a leader within the home furnishings industry.

As a member of SFC, Culp support's the council's triple bottom line focus of People – Planet – Profits and recognizes

# Myant partners electronics manufacturer for Skiin technology




Toronto - Textile computing specialist Myant Inc., which offers a high-tech partnership with German flat knitting machine builder Stoll, has partnered with Toronto-based URtech Manufacturing to produce the first commercial scale run of electronic components for Skiin, Myant's textile-based solution for connecting people to care.

By partnering with another Toronto-based company, Myant says it is creating a local ecosystem to accelerate innovation in textile, positioning Toronto as the geographical center of the textile computing industry. Manufacturing of the first production run of 15,000 Skiin Pods has commenced at URtech's facility in the Greater Toronto Area, a critical milestone on Myant's journey towards a public beta launch for Skiin.

Textile computing involves the integration of electronics within textiles, creating new ways for people to interface with the digital world. The Skiin Textile Computing platform integrates innovative sensor and actuator technology into fabrics, including, smart garments that delivers continuous, blood pressure monitoring in comfortable and machine-washable knitted polo shirts.

Elsewhere, the company has also been developing Skiin Smart Underwear for heart health detection (with ECG, HRV, activity, sleep and temperature monitoring) with other additions to the Skiin platform including slip and fall detection, driver fatigue, ovulation and a suite of chemical sensing markers.

The result is smart clothing that enables users to proactively manage their health, stay connected and lead longer and more comfortable lives, the company says.

As Myant notes, however, commercial scale applications of textile computing, are made possible only through close collaboration between designers, engineers, textile specialists, electronics manufacturers, health practitioners, and other experts.

Even in the rare instances when such expertise is available within the same organization, says Myant, the teams and the infrastructure needed to support their work are typically disconnected and scattered across the globe, making rapid iteration and innovation practically impossible.

Myant, focused on the desire to make textile computing commercially-viable, recognized this challenge and has worked over the past decade to develop the end-to-end capability to innovate in textile computing. Identifying the need to work in a connected way with an electronic components manufacturer, Myant partnered with URtech as it begins to scale-up manufacturing for their commercial launch of Skiin.

URtech brings a long track record of reliable EMS and OEM manufacturing experience, combined with an innovative and collaborative spirit that has enabled Myant to iterate with greater agility. The first commercial run of electronics for Skiin is underway at URtech's Burlington-based facility, a 30 minute drive from Myant's facility. Both Myant and URtech are ISO 13485 certified for the manufacturing of medical devices.

"Connectedness is a critical ingredient for innovation and building a network of local partners helps us innovate with agility," said Tony Chahine, founder and CEO of Myant. "Not only does this partnership between Myant and URtech signal the commercial arrival of textile computing, it also shows that the advanced manufacturing industry is on its way towards bringing the 'culture of making' back to Canada."

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the importance of incorporating sustainable practices into its operations.

Culp is committed to SFC's core beliefs on carbon reduction, water management, product circularity, waste reduction, and other sustainability strategies. The company has completed a variety of initiatives in these areas, including using solar power at its Read Windows production facility in Knoxville, TN; using hydro and wind power at its manufacturing facility in Quebec, Canada; water reuse at its Stokesdale, NC manufacturing plant; and becoming Zero to Landfill certified in all of its U.S. mattress fabric and sewn cover production facilities.

The company is also proud of the success of its LiveSmart Evolve upholstery fabric line. This collection combines sustainability with performance through its use of yarn made with an average of 30 per cent recycled fibers from post-consumer plastic bottles. To date, Culp has diverted more than 1.6 million plastic bottles from landfills through the LiveSmart Evolve line and is continuing its focus on developing additional sustainable product lines, including mattress fabrics designed with certain recycled and biodegradable content.

# Evolution St. Louis helps fashion brands rebound

St. Louis - Evolution St. Louis, the technologically advanced flatbed knitting facility in the United States, says it is working to re-energize domestic knit manufacturing following the impact of the COVID-19 pandemic.

Throughout the pandemic, the Missouri-based company has helped American fashion brands and retailers bring production back to the United States.

"The dynamic shift in consumer buying patterns and long lead times associated with offshore manufacturing were already leading brands toward domestic manufacturing. The supply chain issues fueled by the COVID-19 pandemic in the past year have accelerated those decisions," said John Elmuccio, co-founder of Evolution St. Louis. "By creating more responsive supply chains and locating production in the United States with companies like Evolution St. Louis, brands and retailers have a better opportunity to react to demand in a world forever changed by the pandemic."

Prior to Covid-19, over 95 per cent of clothes sold in the United States were imported from overseas. The pandemic disrupted production and shipping overseas, with billions of dollars of clothing orders canceled and countless brick-and-mortar stores closed in the past 12 months.

"There are so many risks and barriers with foreign manufacturing. We've seen huge delays and fashion manufacturing companies overseas simply going under and never shipping the product as promised," said Timo Weiland, co-founder and creative director of the Timo Weiland brand. "By working with Evolution St. Louis, we're able to keep a closer watch on our products and the process — from start to finish. They're nimble and collaborative, and our partnership with Evolution St. Louis allows us to react to real-time consumer demand."

Evolution St. Louis' Stoll flatbed knitting machines can produce complete garments, knit-to-shape, fully fashioned knits and complex shapes, as well as footwear, smart and technical textiles. The company also offers full-package services, including raw material sourcing, merchandising, technical design and product engineering. Linking, sewing, finishing, and on-site inventory, logistics, packing and shipping are available.

"The fashion industry as a whole has been hard hit by the pandemic, but businesses with domestic partners have fared better," said Jon Lewis, co-founder of Evolution St. Louis. "We're disrupting the fashion industry by using the latest technologies to help contemporary, designer and luxury brands control their intellectual properties and better manage inventories."

Evolution St. Louis' technology serves a variety of industries including apparel and footwear, automotive, lifestyle, sports, health and wellness, medical, and police and fire, creating products for Fortune 500 companies, major brands, boutique designers and direct-to-consumer entrepreneurs.

# Teijin to establish Teijin Frontier Knitting Co

Tokyo - Teijin Frontier Co., Ltd., the Teijin Group's fibres and products converting company, is to merge its subsidiary companies Teijin Modern Yarn Co., Ltd. and Shinwa Limited to develop, manufacture, sell and process yarns as Teijin Frontier Knitting Co., Ltd.

The establishment of Teijin Frontier Knitting is meant to combine the variations of its two predecessors' knitting machines with new development and quality-control capabilities for complex products, the company said. It also is expected to strengthen global expansion of Teijin Frontier Group's circular knitting business.

In addition, Teijin Frontier Knitting will create next-generation materials in the special textured yarn field by integrating the unique technologies of its two predecessors while further strengthening development capabilities throughout Teijin Frontier Group.

Furthermore, the new company will strengthen the launch of new products both in Japan and worldwide by leveraging its expertise in circular knitting that incorporate special textured yarn.

The Teijin Frontier Group says it has achieved steady performance in an uncertain global market thanks to its rich experience and the strengths of its comprehensive framework for producing yarns, fabrics and finished products. The group has continued to build up its business structure and basic technologies by strategically investing in five key fields: environment, infrastructure, healthcare, mobility and global apparel textiles, and also new businesses, as well as by steadily upgrading its operating efficiencies and market responsiveness.

# UK knitter expands with new machine investment

Manchester - UK knitwear manufacturer Zam Zam Knitwear Limited has ramped up its production capacity following the installation of a bank of new WideGauge flat knitting machines from Shima Seiki.

Shima Seiki's WideGauge capability allows a variety of gauges - from finer-gauges using all-needle knitting, to lower-gauges using half-gauge knitting - to be knit on a single machine. According to Shima Seiki, this gives knitwear manufacturers the freedom to handle changing seasons and shifting trends without investing in a machine for every gauge or resorting to the complex, time-consuming task of gauge conversion.

Zam Zam was formed in 2005 by Mr Sher and Mr Chaudhry in the Ardwick area of Manchester. Concentrating on providing a good service to a number of key customers, Zam Zam has introduced a number of knitting techniques and style flexibility within their product range as trends have changed over the years.

In order to continue to provide their customers with greater patterning capabilities and product flexibility they have recently invested in 10 brand new Shima Seiki knitting machines including WideGauge technology.

For Zam Zam, this means it is now able to cover a variety of gauges off the same machine as well as realising improved knitting times, garment shaping and overall improvements in machine performance.

Mr Sher and Mr Chaudhry are pictured with their new machines all running on production.

# A&E outlines sustainability progress

Mount Holly – American & Efird (A&E), the manufacturer and distributor of industrial and consumer sewing thread, embroidery thread and technical textiles widely used in the knitting industry, has outlined progress towards its environmental goals in its 2021 Sustainability Report.

The report comes from A&E's parent company Elevate Textiles, which also owns the Burlington, Cone Denim, Gütermann and Safety Components brands.

The report focuses on sustainably-sourced fibres, reduced water consumption and its reduction in greenhouse gas emissions as it reveals its performance towards its 2025 sustainability targets.

This year's report is structured in line with the key UN Sustainable Development Goal (SDG) commitments of Elevate, and its brands, and is aligned with the UN Global Compact's Ten Principles.

Achievements highlighted in the report include: a 7.5 per cent reduction in global water consumption since 2016; increased water recycling by 65 per cent since 2016 by implementing new wastewater technologies; reaching 68 per cent sustainably-sourced cotton against a goal of 80 per cent by 2025; reducing global carbon emissions across scopes by 2.5 per cent each year; and joining the Sustainable Apparel Coalition and contributing to the Higg Index.

"As a valued supply partner and responsible manufacturer, our Elevate teams and brands are committed to understanding our customers' needs and aligning our actions to help achieve critical sustainability goals," said Sim Skinner, president and CEO of Elevate Textiles.

# Optimism remains despite major 2020 hit

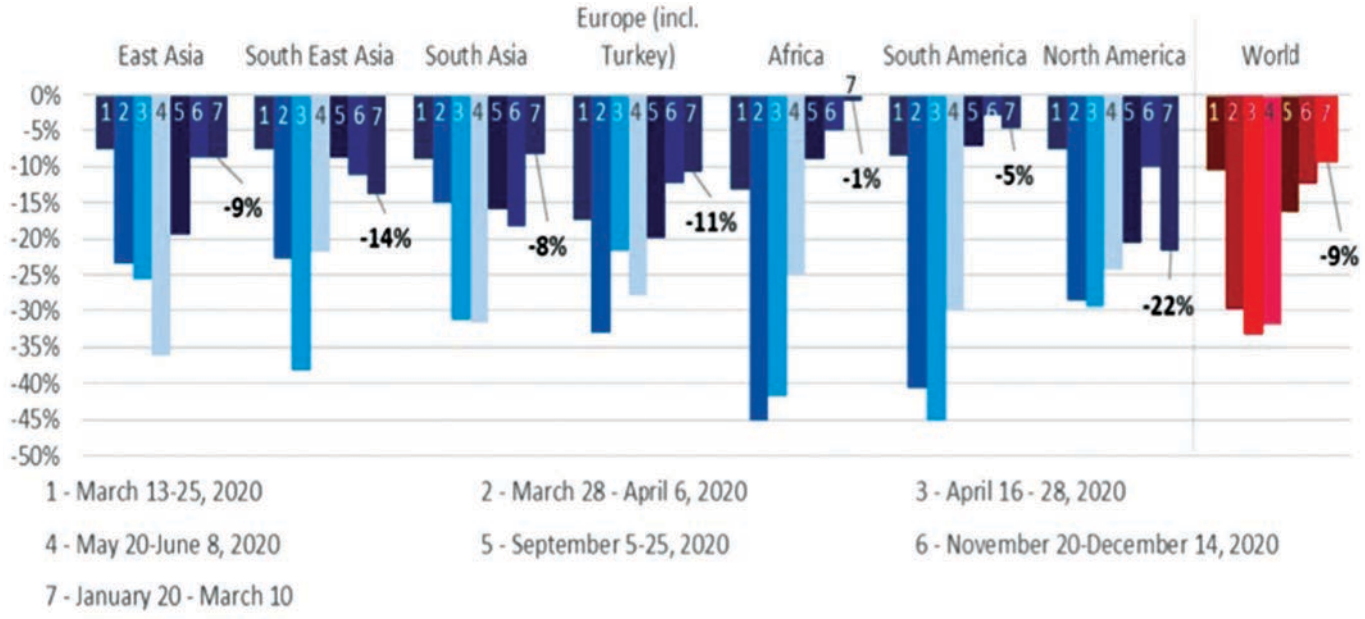
Zurich - Despite 15 per cent drop in turnover for the knitting sector, the ITMF's members and affiliated companies have expressed optimism for the remainder of 2021 following the enormous impact of the coronavirus pandemic on the textile industry.

Between January 25th and March 10th, 2021, the ITMF conducted the 7th ITMF Corona Survey among its members and affiliated companies and associations about the impact the pandemic has had on the global textile value chain. In total, 196 companies from around the world participated.

The 7th survey revealed that overall turnover in 2020 was 9 per cent lower compared to 2019 (see Graph 1). While this decrease is significantly better than the expected drop of 33 per cent in the 3rd survey at the height of the first Corona- wave in April 2020, the year 2020 will go down into history as one of the worst years for the global textile and apparel industry.

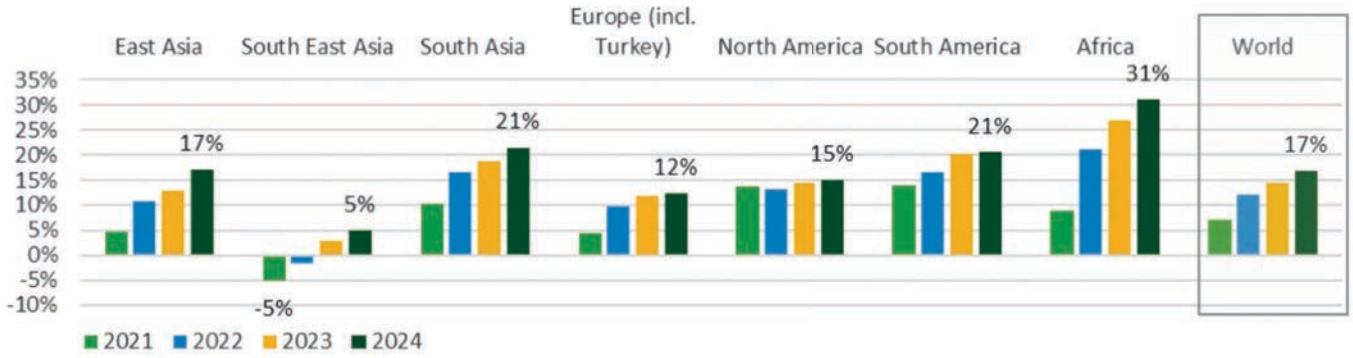
In comparison to the expectations expressed in the 6th ITMF Corona-Survey (November 20th – December 14th, 2020), actual turnover for 2020 compared to 2019 has improved by

## GRAPH 1. TURNOVER 2020 IMPACTED BY THE CORONA-PANDEMIC PER REGION (VERSUS 2019)




Source: 1st until 7th ITMF Corona-Surveys (March 13th 2020 until March 10th 2021)

## GRAPH 2. WHAT IS YOUR COMPANY'S EXPECTED TURNOVER FROM 2021 TO 2024 COMPARED TO 2019 (REGIONAL AVERAGE)?



3 percentage points from -12 per cent to now -9 per cent (Graph 1).

As expected, the survey shows that the entire textile value chain was hit hard by the pandemic including textile machinery producers. Practically all segments under review were impacted negatively to different degrees in 2020 with the knitting sector reporting a 15 per cent drop in turnover. The two segments standing out positively are the producers of nonwovens (+/-0%) and of fibres (+10%).

It can be assumed, said the ITMF, that those two segments have benefitted from the extraordinary demand for masks during 2020, which compensated to a significant extent for the loss in other areas like automotive or apparel.

For 2021 and the following years up to 2024, turnover expectations are positive (see Graph 2) and have overall not changed compared to previous surveys. On a global level, turnover expectations are especially strong for 2021 and 2022, an indication that companies are expecting a strong recovery.

For 2023 and 2024 companies' growth expectations are weaker. Looking at the various regions the most striking result is the positive expectations of companies in Africa (+31% by 2024), compared to the other regions that range between +12 and +21 per cent.

## Knitting firms honoured with Unifi awards

Greensboro - Penti, one of Turkey's largest, vertically integrated hosiery, lingerie and swimwear manufacturers and Odlo, a major exponent of seamless knitting technology, have been named as the winners of Unifi's Repreve Champions of Sustainability awards.

The awards from the textured yarn specialist recognize brand, textile and retail partners that have demonstrated a true commitment to supporting a sustainable world.

Other winners from the knits sector include Gildan, Hanesbrands, Lucky Textiles and Culp Home Fashions.

"The pandemic brought to light the fact that sustainability and taking steps towards a greener tomorrow are important now, more than ever," said Jay Hertwig, Senior Vice President of Commercialization at Unifi. "Odlo has shown a commitment to sustainability by switching to Repreve within the last year and could not be more deserving of the Newcomer Award.

"We chose Penti, a leading Turkish retailer as the recipient of the Repreve Leading the Change award for its efforts to promote sustainability across its clothing line and stores. We hope these awards – and the program as a whole – inspire more brands and retailers to expand their sustainability goals by choosing Repreve."

# Hosiery International

## Busi secures international trademark

**Brescia - Italian hosiery specialist Busi Giovanni has successfully achieved the international registration of its trademark. As a result, the 63-year old Busi brand is now registered in the European Union, in the U.S.A., China, Russia, and in Turkey.**

"Since last year, despite Covid and its sanitary, economic, and social consequences Busi Giovanni (Italy) has been committed to doing its best to improve lots of its internal activities as well as its manufacturing site," the company said.

Despite the global pandemic, the hosiery knitting machine manufacturer has been particularly busy in the last 18 months. Most notably, it has completed its range of medical hosiery machines with the addition of the 5 ins diameter model, adding to the existing 4 and 4 ½ diameter models on both the Busi Medical and the Busi Medical Terry. Its popular J-Terry model is from now on available in diameter 4 ½ inches and a needle range from 80 to 240.

Busi has also developed the advanced Busi Control Tower, a web-based application that allows to monitor and control its machines in real-time, 24/7, while collecting and analysing performance data. Busi machines' users may therefore answer critical issues related to productivity.

Busi is also sponsoring an innovative, automatic yarn weighing system, which is able to measure real consumption and warn in case of possible malfunctions. The system will help hosiery manufacturers finally get reliable data about sampling costs and avoid onerous defects and downtime in production.

Busi has also recently developed on-demand services targeted especially to start-ups or for reorganisation / rationalisation of existing hosiery mills. "Turn key project" is a customized service aimed at creating a framework for assisting start-up companies in building a sock mill from scratch. The project includes mandatory milestones such as complete feasibility study, business plan, plant organisation along with market analysis where appropriate.

The company also provides the support of a skilled and experienced Fashion Designer to help its customers with designing attractive customized hosiery collections for their brands.

## Double cylinder investment for Thai hosiery giant

**Bangkok - Thai hosiery giant OSC Socks is increasing its capacity with the purchase of a bank of the latest double cylinder hosiery knitting machines from Italy's Lonati.**

The company has invested in a number of DC88X machines, a 2 feed model for the production of men's, women's and children's socks in ribs, plain knit and links.

This model offers needle-needle, single-magnet selection for several rib and links patterns as well as a tuck knitting option on the first feed of the lower cylinder. The DC88X series also operates with a brushless motor incorporated in the column with variable heel and toe reciprocating motion.

With two selection points instead of pickers and needle droppers, it also has electronic size control with an automatic adjustment of the stitch.

The DC88X range from 3 1/2 ins, 3 3/4 ins and 4 ins diameters and from gauges ranging from 7 to 22G. It also comes with SbyS linking with different needle thicknesses according to the machine gauge.

"The highest technology of modern socks manufacturing has just arrived at OSC's doorstep and already start production," OSC said. "We now have the ability to cram this highest tech into our products, improving the fit and enhancing durability of a sock far beyond what you could ever imagine."

This latest investment follows a further capacity increase in 2020 with OSC installing in a number of machines from Lonati's Goal range equipped with the SbyS (Stitch-by-Stitch) automatic toe-closing device.

OSC, also known as Overseas Rayon Industrial Co., Ltd. was established in 1972 as one of Thailand's first hosiery manufacturers to specialize in sock manufacturing. Since then, the company has grown to become a leading local and global supplier of high quality sports, casual and dress socks with a capacity of more than 10 million pairs of socks per year from its 22,400 square metre plant.

The company is particularly renowned for its sports socks, supplying clients such as Diadora, Fila, Football Thailand FBT, Kappa, Kool Sport, Lotto, Pan, SF, Svolme, Umbro and Yonex. Currently, approximately 20 per cent of the company's finished goods go overseas, while 80 per cent are destined for the local market. Recent new product developments also include the production of calf sleeve socks, which come with compression properties.

## Fresh investment underpins growth for UK sock firm

**Birmingham - UK-based accessories manufacturer and wholesaler, Socks Direct Limited, has secured six-figure funding from Royal Bank of Scotland to support business growth and the development of a new line of sustainable products.**

The company will use the funding to finance product development including the creation of a blend of organic yarn made by recycling and combining old cotton fabric scraps and bamboo yarn. This, the company says, will save millions of litres of water currently used in the production of cotton every year.

Socks Direct was founded in 2003 by Jaweed Mirza, who has 30 years of experience in the industry. The firm currently manufactures six different brands of products including socks, underwear and sports accessories, supplying high street retailers and online businesses both in the UK and internationally.

In 2006, Socks Direct launched its first patented sock, Easytop, a range of non-elasticated socks suitable for those with diabetes or circulation issues.

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# Track and trace

## Sustainability is written into the DNA of an historic UK knitwear manufacturer.

Local sourcing, local production and complete traceability have proven to be key reasons for the survival of a 200 year old UK knitwear manufacturer.

"Everyone is talking about sustainability right now, which can be a bit frustrating as a long-standing English manufacturer," Tom Glover, managing director of Peregrine Clothing recently told the UK Fashion and Textile Association. "We have always had to be sustainable because we'd never survive otherwise – it's written into our DNA."

Peregrine is the brand name of J G Glover & Co Ltd, a British brand with a rich family history dating back to 1796 when Thomas Glover started as a hand frame knitter in Wigston, Leicester. The brand specialises in heritage Merino wool jumpers and cardigans, Millerain wax jackets, and Merino wool hats and scarves, offering heritage style with a twist. "We use 100% wool, which is sourced locally, often from around 60 miles from the factory," explains Glover. "Our biggest thing at the moment is traceability, as there aren't many brands which can say that they have full control of production line. We can trace everything through to the manufacture of the yarn, through spinning and dyeing. It's a bit more genuine when you have your own factory."

Tom Glover, managing director of Peregrine Clothing .

The factory is now based in Manchester with a small highly skilled workforce. With knitwear at the core of the Peregrine brand, the company uses fully fashioned 7 and 5 gauge machines to knit predominantly Merino and British wool. The woven goods are made in Birmingham, from locally sourced fabrics to ensure a competitive price for a quality product.

Peregrine says it is proud to offer a fully traceable production line, manufacturing 100 per cent of its range in its UK factories, from locally sourced yarns and fabrics. The brand works with some of the longest established textile companies and fabrics in the world including Harris Tweed, British Millerain, Abraham Moon, Laxtons, Shepley Yarns and British Wool to help create timeless classic garments, which have been built with generations of expertise and knowledge behind every stitch.

"First and foremost, we make a stylish and high quality product which people want to buy, but the fact that we have the history, the traceability and the story behind it is a bonus," says Glover.

The brand is moving back to using more local yarns and British wool than it has in previous seasons. British wool has been used for centuries to make quality cloth for apparel. It is extremely hard wearing and can withstand continuous wear, keeping the wearer warm in winter and cool in summer.

The UK has more breeds of sheep than any other country in the world with each sheep producing about 2kg of renewable and sustainable wool each year.

"People often think that British wool is scratchy and coarse but we're using more of the top grade British wools like the Bluefaced Leicesters and Mashams

which are much softer," says Glover. Peregrine also uses Merino wool and Nilo organic cotton in its collections. Nilo is an Egyptian cotton of the highest quality, blended with Giza 45 and Giza 87 extra-long cotton fibres.

Glover explains: "Nilo cotton is sustainable, fully traceable, ultra-soft with zero pilling. Farmed from organic BCI cotton and part of the Cotton For Life and Better Cotton Initiative movement, this gives our zero waste polo shirts a sustainable story we are proud to shout about."

Glover also believes consumers are increasingly interested in how products are made and the yarns used in collections they buy. "It's showing in our online sales and wholesale, and it's great that there is growing interest in what happens behind the scenes. We're very proud of our production and it's something we love to show."

"If you bury a polyester-acrylic fleece it will stay there for 3,000 years but if you bury a wool one, it will disappear in three months. That's a big thing."

*Tom Glover*

## Fleece

Peregrine is also about to launch a wool fleece in AW21, based on the success of its wool overshirts over the past few seasons.

"Many brands you see with strong environmental credentials in many areas still have fleeces that are made from polyester-acrylic blends," says Glover. "We're launching what we think is the first 100 per cent wool fleece so we're pretty excited.

"If you bury a polyester-acrylic fleece it will stay there for 3,000 years but if you bury a wool one, it will disappear in three months. That's a big thing."

Peregrine pieces are designed to span seasons as a wardrobe staple that will be loved for years to come. They are designed to stand up to the elements but transition perfectly to suit an urban environment making them adaptable for both city living and country breaks.

"We want to create great product that offers value for money, while remaining honest and authentic," says Glover. "It's pretty simple really."

Peregrine Clothing is a UKFT member. For further details or to become a UKFT member, visit *https://www.ukft.org/membership/* KTJ


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# Improved options for in-demand fleece

Several of the industry's leading circular knitting machine builders have been developing new options for the growing fleece fabric market.

With the athleisure trend showing little sign of slowing down, the fleece fabric market has been gaining traction over the last couple of years. As such, most of the industry's leading machine builders offer several options when it comes to producing this in-demand fabric.

Generally made with polyester although it can also be made with a variety of different yarns, fleece fabric is incredibly effective in trapping body heat and sustaining the temperature of the wearer.

It is characteristically very soft and is seen as an inexpensive alternative to wool, so is regarded as one of the best value fabric choices when it comes to making warmer clothes. It is also an incredibly versatile and popular fabric, especially in the outdoor garment industry, due to its ability to keep people warm even when wet.

As an excellent choice as an insulating fabric, it is often worn in colder environments. Due to its various layers of cut fibres on both sides, fleece fabric has the ability to trap air which is a key aspect of retaining heat.

Fleece fabric can also be hydrophobic, which is one of the most sought-after properties in a fabric, as it means its threads cannot absorb water. It's ideal to use in damp situations, which is why it is so popular in the outdoor industry. It also dries very quickly.

Although fleece can also be used for a range of home textiles and industrial applications, it is the apparel sector which currently dominates in terms of end use. A recent report from 360Research - *Fleece Jackets and Vests Market 2021-2026* shows that the global market size is projected to reach US$6,827.6 million by 2026, up from US$4,524.1 million in 2020, at a CAGR of 7.1 per cent.

## Flexibility

Monarch Knitting Machinery UK has several options for the production of fleece fabric.

The V-SEC7BF, for example, which is available in 30 and 34 ins diameters and in gauges 16-32G, is based on the proven technology of the V-SEC7BS, the multi-feeder electronic machine equipped with 2-position needle selection and SS-actuators, which means its can also be used for the production of mesh fleece and jacquard inlay fabrics.

Special features of this machine include user friendly flip-up yarn carriers which are independently adjustable for Knit-In, Tie-In and Lay-In feeders, all of which facilitate threading work.

This model also has an option for knitting stretch fleece as a yarn-feeding roller can be fitted to the yarn carriers for the Knit-In feeder.

In terms of flexibility, the V-SEC7BF can also be make use of a conversion kit, transforming it to a V-SEC7BS or V-SEC7BSME which significantly widens the different types of fleece possibilities even further.

Other noteworthy features include a new touch panel and a clearer colour LCD, which greatly reduces the chance of making mistakes in entering and confirming machine and pattern data.

Customers that opt for the V-SEC7BF also have an option to order the machine with the OD5 open width take-up technology, which is based on a servomotor driving system to facilitate the precise control of the take-up amount.

Prior to the launch of the OD5, gear changes and QAP adjustments were necessary on open-width take-ups whenever the take-up amount was changed. With the OD5 frame, these adjustments can now be made simply by entering the desired take-up production values into the operation panel thanks to the latest control technology utilized by the new servomotor driving system.

The take-up amount value can be inputted in increments of 0.1mm, enabling the user to make adjustments freely and easily. Thus, models incorporating OD5 technology are more operator-friendly and less operative skill is required.

A further option from Monarch is the MXC-S3.2DFDRE, a single-knit machine for the production of fleece fabrics.

The MXC-S3.2DFDRE is available in diameters ranging from 26 to 36 ins and offers high production levels with up to ›

Samples from Monarch's MX-S3.2DFDRE.

116 feeds. Available gauges range from 20 to 28G. Fabric possibilities for this model include 1x1 fleece, 2 x1 Twill fleece, 3 x1 Fleece (3 race) with further options including Pique fleece, Mesh fleece, 3x1 Twill fleece, (4 race) and elastomeric yarn plated double fleece.

With a 3 race closed cam system on the cylinder and double push type sinker cams, the MXC-S3.2DFDRE also offers a quick conversion to knit fabrics other than double fleece.

## New limits

Italy's Orizio has also developed a new fleece option over the last couple of years with the launch of the MJF/BE, which, with 2.4 feeders per inch, is designed to set new limits on the three yarn fleece trend with stripers on all feeds.

This is a single knit machine with electronic needle by needle selection with three colour electronic stripers on the loop and/or ground yarn for the production of jacquard and striped invisible fleece fabrics.

The MJF/BE offers a wide variety of patterns associated with the colour change possibilities and with the electronic needle selection. The Ori-Tec system is also installed. "This is certainly a niche market machine," says Orizio, adding that it has had significant interest in this development.

The MJF/BE is available in diameters of 30 and 34 ins and in gauges 16 to 24 ins.

## Multi-function

For Taiwan's Sun Da, a key provision of its offering is providing as much flexibility as possible with the aim of making multi-functional circular knitting machines for its customers. The Sun Da Single jersey interchange series for example, covers single jersey, three thread fleece, terry and velour - four different types of machines that are convertible from each other by changing the conversion kit with fewer parts.

For example, for a single jersey 20G convert to three thread fleece in 20G, customers need to change just the yarn guide, sinker, sinker cam and cylinder cam. The cylinder and needle are compatible with same gauge with this applying to all the interchange series.

Single jersey and three thread fleece fabrics are also complementary for the summer and winter season and increase Sun Da's customers' capabilities and competitiveness, the company says.

## Thermal

In recent years, Taiwan's Pai Lung has made a number of advancements with its Swiss Fleece fabric, which is available as Jacquard and Swiss Fleece + Mesh.

As Pai Lung notes, Swiss Fleece is one of its best selling fabrics for use in a midlayer, working best when worn over a moisture-wicking baselayer material like merino wool, and under a waterproof and/or windproof shell.

As a fabric for keeping the body warm, fleece fabric uses the fur layer which locks the heat in skin. Normally, it is used in the inner layer and requires a number of different procedures with the fabric sometimes at risk of damage from the lamination process. Pai Lung now knits fleece layers and jacquard layers simultaneously. "This innovation greatly reduces the complex productions and fabric weight and, more importantly, it continuously provides the existing thermal properties," the company says.

Swiss Fleece therefore has a double-layer structure — soft-napped on the inside with jacquard pattern on the outside — that are produced simultaneously, cutting the time and cost of processing, and keeping the fabric lightweight. Not only is this highly breathable fabric lightweight and quick drying, it is said to be soft and cozy. As athleisure exists at the intersection of function and comfort, Swiss Fleece playing a key role in the athleisure sector, the company says.

The Pai Lung machines best suited to this type of fabric production are from the long-established Knitel series which has a production level of between 30 per cent and 50 per cent higher compared to the company's conventional range of machinery. However, as well as higher speeds, Pai Lung is continuing with its research programs and now offers improvements in knitting element life and inclined sinkers to minimise needle movement and facilitate higher speeds using short latch needles.

Recommended machines include the KD1.5CJ, available in gauges 12G - 36G and in diameter 16 ins to 44 in with 1.6 feeders per inch and the KD2.5B in gauges 14G - 40G and in diameters 13 ins to 42 ins with 4.4 feeders per inch.

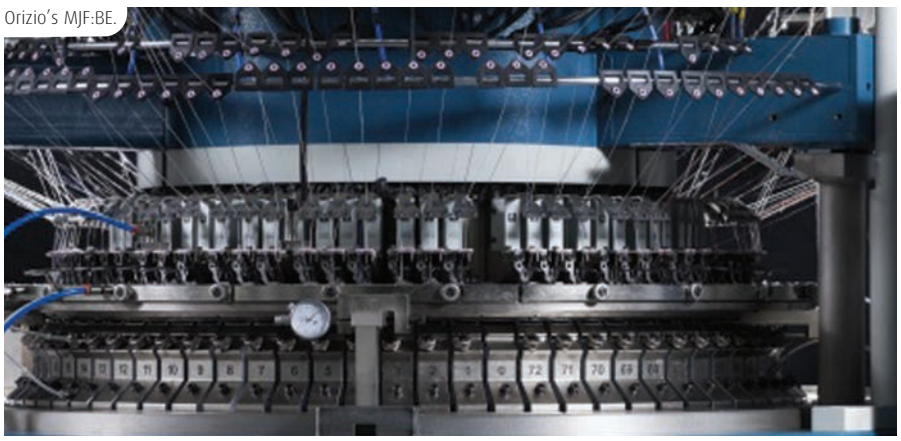
## Conversion

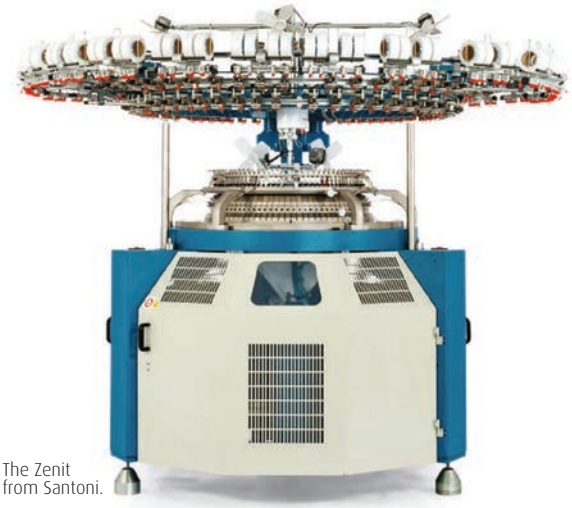
Santoni's primary offering to the fleece market is its Zenit technology. The Zenit F is a large diameter single jersey machine suitable for fabric production with 4 cam track stitch structures with 3 feeders per inch. It is available in tubular or open width while the knitting head is convertible to produce three thread fleece fabric while the speed is much higher than other large diameter machines improving both efficiency and productivity.

The Zenit also includes double guidance sinker cams in combination with well-designed sinkers with tail which ensures uniform loops all over the fabric and less wear and tear of sinkers.

Also noteworthy is that the yarn carrier is in front of the raised needles which allows for perfect plating at high speeds while individual cam shells made of a special aluminum alloy (ergal) offer a high quality heat dissipation properties.

Orizio's MJF:BE.





The Zenit from Santoni.

There is also automatic positioning of the fabric take down for quick removal of fabric roll with both tubular as well as Open width frame available.

The Zenit is available in diameters of 30 to 36 ins diameters, in gauges 12 to 24G and up to 108 feeds.

## Processing

One of Mayer & Cie's latest offerings for this growing market has been the development a new knitting machine for manufacturing three-thread fleece, the first in-house development by the its Chinese subsidiary.

The MFC 3.2, which was unveiled at the Shanghaitex trade fair in 2019, produces light to heavy linings and is specially geared to processing polyester yarn with applications in sports and leisurewear.

"Three-thread fleece linings are popular all over the world," said Marcus Mayer, Mayer & Cie.'s technical director at the time of the model's launch. "Albeit with important regional differences. In Europe and America customers appreciate heavier, warm cotton fabrics, whereas in Asia light, fluffy fabrics made of mixed synthetic fibres are preferred. That is why the MFC 3.2 is a major addition to our Chinese portfolio."

The new Chinese three-thread fleece machine is based on the established Mayer & Cie MBF 3.2, the qualities of which deliver the goods in the MFC 3.2. They include the high quality of material on both sides of the fabric and the production of challenging weaves. At the same time, the Chinese Mayer & Cie team attached importance to catering for local requirements, first and foremost processing polyester yarns. Thanks to cam parts developed in-house, the new machine performs these tasks reliably and efficiently. At up to 30 rpm on a 30-inch diameter cylinder, the MFC 3.2 produces three-thread fleece for sports and leisurewear.

According to MCN, the MFC 3.2 is more than a three-thread fleece machine. A conversion kit transforms it into the MSC 3.2 II, the most popular machine in Mayer & Cie. China's portfolio. The conversion works in both directions, which further upgrades the single jersey machine as, in the highly saturated Chinese single jersey market, the fact that the MSC 3.2 II can be converted into a three-thread fleece machine is an important selling point. KTJ

# Sustainability is in vogue for historic warp knitter

How a traditional lace manufacturer is mastering the pandemic: Walter Colombo from Iluna in conversation with Jamie Heather from Karl Mayer.

Iluna is a traditional European manufacturing company in the lace sector that has been setting trends in the industry for over 50 years.

Founder Luigi Annovazzi started in 1969 with an epoch-making idea. The entrepreneur wanted to produce preformed bra cups. A short time later, he launched the first moulded cup model, and established his company as a leading supplier in this field.

In the mid-1980s, Iluna became the first producer in Europe to start manufacturing elastic lace. In addition, over the years a production and trading network was established with associated companies in Poland, China and the USA. Today, Iluna employs around 300 people worldwide.

In its factories, the company operates 80 Karl Mayer warp knitting machines that are running and producing high-quality textiles: elastic and rigid lace, microfiber articles, tulle and much more.

The chic warp-knitted fabrics go into the lingerie, corsetry and swimwear sectors. In addition, Iluna is one of the largest hosiery and seamless garment manufacturers. On their journey to success, the traditional company has overcome many crises. Karl Mayer's lace specialist Jamie Heather wanted to know how Iluna is dealing with the current corona pandemic and how it will continue to be successful in the future, and spoke to Walter Colombo, R&D Manager at Iluna.

**Jamie Heather: Corona is keeping companies around the world in suspense. What measures and strategies does Iluna use to cope with the challenges of this crisis?**

**Walter Colombo:** Since the very first day of the pandemic Iluna has adopted meticulous precautions in the workplace and provided to the team protective equipment and also asked them to maintain adequate distancing. The pandemic has prevented the possibility of physical movement making it necessary to have an active digital presence on social media channels, our website and online meetings. These remote methods represent a leap into the future. In a way, it is closely related to sustainability and less travel and greater use of digital channels will continue to be used, even after the pandemic.

100% GRS Certified flock by Iluna Group.

**JH: Do you also use online possibilities to launch your new collections and to develop new sales channels?**

**WC:** Yes, the collections are presented through a busy calendar of online meetings during which Iluna and its agents show a presentation of trends and products that are also visible by registering on our website www.iluna.com where, with various levels of authorization, Customers can access the collections and then sample and buy. Furthermore, we are preparing a restyling of our website with a new, more contemporary simplified look and also a more user-friendly interface for our e-shop.

**JH: Is there a new approach to how designs or products are made?**

**WC:** We have invested our time with a different approach to research and development: we are improving our product offer by focusing more and more on sustainability and stylistic innovation. Sustainability is in the details.

The company achieves this everyday with Iluna Lab, a cutting-edge research and development centre where laces are conceived and engineered to become sustainable ingredients for the contemporary wardrobe.

With our Iluna Lab, we are pioneers and trailblazers in the sustainability trend. Our smart values are attested by the STeP - Sustainable Textile Production by OEKO-TEX certification for our sustainable approach. We are also the first lace producer to have gained the GRS - Global Recycled Standard for transformed products, and whose products are all certified according to OEKO-TEX Standard 100. We are on the right track with this orientation. The trend towards sustainable products has been growing for several seasons. It was accelerated significantly by the Corona pandemic.

Ultralight & Multicolor Laces.

**JH: What product offers do you have that address the trend of sustainability and recycling?**

**WC:** Currently 70 per cent of our production is made of sustainable materials. We offer two cutting edge sustainable collections, the Green Label and Bioline.

Strictly 'Made in Italy' starting from recycled ingredients, the Green Label collection is certified Global Recycled Standard (GRS). Its two key ingredients are the Q-Nova by Fulgar polyamide 6.6 fibre, obtained from pre-consumer raw materials, and the premium recycled stretch yarn Roica EF. The high-performing and sustainable yarn is part of the Roica Eco-Smart family made from more than 50 per cent pre-consumer recycled content. This season, the Green Label expands with the world's first 100 per cent GRS certified flocked article: an exclusive development opening up new possibilities for brands and retailers, which is entirely made from recycled materials and allows infinite printing possibilities by offering a highly customizable solution.

The Bioline embraces the circular economy and features the Amni Soul Eco polyamide 6.6 yarn. The fibre is biodegradable in anaerobic conditions and degrades in around five years after being disposed of. Bioline is also made with the Roica V550 premium sustainable stretch yarn that, once discarded, smartly breaks down without releasing harmful substances into the environment, according to Hohenstein Environment Compatibility Certification. Roica V550 also comes with the Gold Level Material Health Certificate.

Iluna was one of the very first lace manufacturers to use the stretch solutions from the Eco-Smart family. We decided to gradually convert our entire production of elastic laces accordingly.

Furthermore, our textile articles are dyed with environmentally friendly natural dyes. This year we have also unveiled an exceptional range of natural dyes made with vegetable dyestuff and a colour chart featuring 14 shades - which is constantly expanding. All the dyes are GOTS certified, and their colorfastness meets the OEKO-TEX Standard 100 requirements.

**JH: Besides the material, the look is important. For the post-Corona era, many here await a new dawn in the fashion sector. What designs do you have in store for the post-Corona period?**

**WC:** We present a carefree and fresh collection, a summer breeze like a sign of rebirth after a strong period of resilience. Our collection is unexpected and positive and with responsible values for all those who want to make fashion smarter.

**JH: Will there be any opportunities for completely new markets, such as lace for men's underwear? Has Iluna been active in this sector?**

**WC:** We have already developed and produced articles for men's underwear lines, and we work regularly with respective customers who are interested in such articles. The demands on know-how and technology are similar to lingerie production. However, the designs are different, less floral and romantic, more aggressive.

Iluna's creative patterns are traditionally realized on Karl Mayer machines.

The interview concluded with a discussion of the cooperation between the two long-standing partners. The first machine was ordered in 1986. This was followed by a period of cooperation in which Iluna also acted as a counterpart in developments, testing new machines. Since the 1990s, this involvement has declined, but Walter Colombo stresses that his company is still very keen to work with Karl Mayer to launch innovations for lace production.

Asked about his wishes for further optimizations, Walter Colombo replied: "Improvements in pattern changing downtime".

Pattern changes should be very easy and set-up times should be reduced in order to be able to produce even small yardages economically - requirements that Karl Mayer is already focusing on, says Heather. KTJ

# Pigment perfection

Tencel Modal with indigo is being heralded as a game-changer for the flat knitting sector.

Working together, flat knitting machine specialist Shima Seiki and cellulosic fibre manufacturer Lenzing are demonstrating how Tencel Modal with indigo technology is proving an ideal partner for the production of WHOLEGARMENT knitwear.

Based in Austria, the Lenzing Group recently announced their enhancement of sustainable offerings for the denim and knit industries with their newly developed Tencel Modal fibres with Indigo technology.

The new offering uses advanced technology to incorporate the indigo pigment directly into the Tencel branded modal fibres using a one-step, spun-dyeing process. This delivers superior colour-fastness relative to conventional indigo dyeing while using substantially fewer resources, Lenzing says.

This technology has been awarded the EU Ecolabel, a designation of environmental excellence given to products meeting high environmental standards throughout their life cycle.

## Eco-responsible

The denim industry's demand for eco-responsible alternatives is growing significantly, as brands and supply chain partners seek even more sustainability in various manufacturing processes. Lenzing has been working closely with like-minded partners to reverse environmentally harmful denim production processes through the origin of its raw materials and responsible production processes.

Denim remains an important market for Lenzing and the introduction of Tencel Modal with Indigo technology is designed to help reduce the ecological footprint of denim fabrics and garments.

Tencel with Indigo.

Produced in Austria, predominantly from beech wood derived from sustainably managed wood sources, the new offering has been designated BioPreferred by the United States Department of Agriculture (USDA).

"Innovation is at the core of what we do, from sustainable fibre sourcing through industry-leading features and production processes, with the ever-present goal of safeguarding our environment," explained Florian-Heubrandner, vice president of the Global Textiles Business at Lenzing AG. "By upending traditional manufacturing processes and implementing our pioneering technology along with renewable and eco-responsible materials, Tencel Modal with Indigo technology sets a new benchmark for indigo application and sustainability in the denim industry."

Tricia Carey, director of global business development for denim at Lenzing, agrees that indigo technology marks a major change in the way indigo dye has been applied that goes beyond foam dyeing, for example, and allows for fewer steps in the process and reduces chemicals by putting the indigo pigment into the yarn while it is being spun.

"I feel the opportunities are really endless for what can be done with this technology," Carey says. "We feel this process will be able to stop problems, not only of indigo dyeing, but also in the knit market, which has had problems working with indigo yarns because of the crocking. The beauty of adding the indigo pigment into the fibre is that you still can create the wash effects in a commercial laundry–ozone, laser–however, when the consumer washes it in the home laundry, you will not have any further loss of colour."

Carey notes that Tencel Modal fibres with Indigo technology are inherently

versatile and enable implementation in a range of multifibre blends. She said the process also allows for the fibre to be used in products beyond jeans, such as knitwear, activewear, shoes, and home goods since the crocking is eliminated.

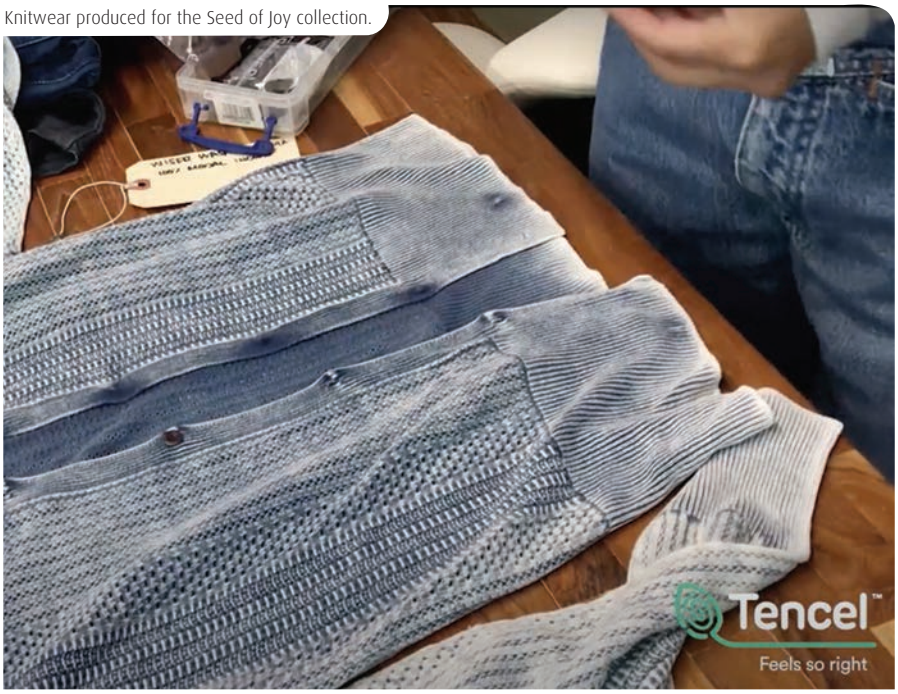
In addition, a specially commissioned indigo pigment from dyestuff manufacturer DyStar ensures that Tencel Modal with Indigo technology can be certified with Standard 100 by Oeko-Tex, guaranteeing ultra-low levels of aniline.

"The Tencel brand is leading a revolutionary change for the denim industry and it has always been one of my go-to eco-fibers for my collections," adds Adriano Goldschmied, Founder of House of Gold. "We are thrilled to collaborate and launch the 'Seed of Joy' concept capsule with woven, circular and sweater knit fabrics using Tencel Modal with Indigo technology, in partnership with mills such as Blue Diamond and In The Loop, as well as machinery producer Shima Seiki."

## Flat bed

Tencel Modal with Indigo is therefore seen as a game-changer for flat-bed knit applications. Traditionally, when trying to knit with indigo yarns, the indigo dye was a problem for knit manufacturers since the yarns stained the needles on the machines during the knitting process. The dye stain builds up over time and requires heavy cleaning after production runs to keep the machines in workable condition.

Knitwear produced for the Seed of Joy collection.




The new eco-responsible Tencel Modal with Indigo yarns developed by Lenzing ultimately resolves this issue by changing its dyeing process in collaboration with DyStar, having superior dry and wet crocking and rubbing.

This new technology provides indigo coloration with substantial water, chemical, and electricity savings, along with less wastewater produced, and no heat energy used.

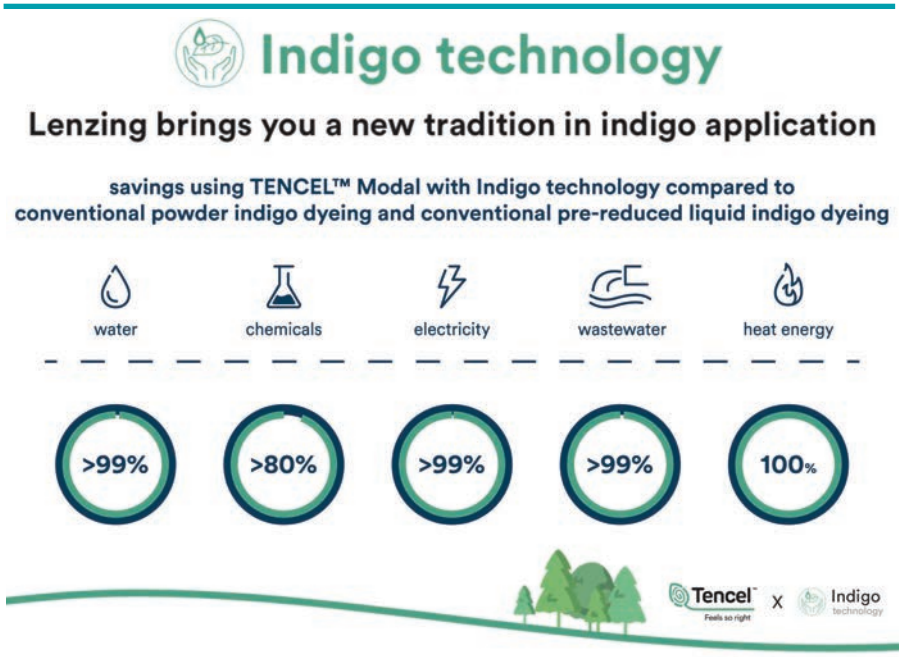
"By using these yarns in combination with Shima Seiki's WHOLEGARMENT 3D knitting technologies, we were able to drastically reduce wastage and achieve savings by producing garments in the most sustainable form of knitting today," Shima Seiki USA said. "WHOLEGARMENT machines knit garments all in one-piece from yarn to garment with no need for cut & sew or linking, and offers a new and truly sustainable knit offering to the fashion industry.

"Although WHOLEGARMENT – 3D Knitting technology is over 25 years old, we haven't seen many denim applications in the past because designers stayed away from Indigo yarns due to their crocking issues which most knitwear manufacturers avoided.

"However, as highlighted above, the new Tencel Modal with Indigo solves the crocking issue, creating a new yarn that can be used by knitters without any issues of staining machines.

"We at Shima Seiki USA are thrilled to be a part of this collaborative release to showcase Lenzing's latest innovations in the Tencel Modal with Indigo technology and hope this collaborative collection can help inspire people in the denim industry to explore 3D Knit applications, or knitwear designers to consider indigo yarns for their future developments."

*This article was reproduced with permission from Shima Seiki USA.* KTJ



# Driving sustainability in Italy's hosiery supply chain

Specialising in the creation and distribution of man-made fibres for the finest Italian and European fashion brands, Fulgar is working to provide innovative, sustainable solutions to Italy's hosiery district.

Textured and covered yarn specialist Fulgar is striving to play a key role in the drive for greater innovation and sustainability in the Italian hosiery industry.

Fulgar is a major player in the synthetic fibre sector, producing and distributing nylon 66 and covered elastomers in the textile and technical fabric sectors. Founded in the late 1970s at Castel Goffredo (Mantova), the heart of Italy's hosiery region, Fulgar has carved out a position as sector leader on the international scene, confirming its international approach in recent years with a host of new production centres and installations.

"Technological innovation and sustainability – these are the crucial qualities driving the economic recovery and our response to the challenges of the future, especially in the textile world," the company says, noting that Italy's hosiery sector has not been slow to respond to these challenges.

In fact, it's fair to say that focus on sustainable solutions is now, more than ever, a distinctive feature of the sector's operations. Fulgar is also confident that sustainably produced hosiery items are increasingly in demand in the current climate with consumers developing a greater awareness of these issues during the coronavirus pandemic.

> "Companies looking to the future must take this sustainability trend into account when creating their products and their commercial and communications choices."
>
> *Alessandro Gallesi*

Sarah Borghi Agatha Eco.

"These changes also involve hosiery, developing at an even faster rate with cutting edge proposals that combine style, functional benefits and respect for the environment," says Fulgar.

## Trend

Alessandro Gallesi, president of ADICI – the Hosiery and Intimate Wear District Association agrees with this trend. In fact, Gallesi goes so far as to say that the transition towards eco-sustainable fashion and textiles is now irreversible. "The global pandemic, with all its implications for changes in lifestyle, behaviour and purchasing choices has generated a more intense awareness among consumers, especially younger ones, who are the main driving force behind corporate growth (in 2020, 63 per cent of consumers chose sustainable products, against 29 per cent in 2019 – research by PwC)," he says. "Companies looking to the future must take this trend into account when creating their products and their commercial and communications choices. It is set to be increasingly important, starting with the raw material used."

Fulgar says it has taken up this challenge, adding a green emphasis to its research and innovation and making a commitment to sustainability in all stages of the production process.

The company's role is reflected by its constantly expanding, eco-sustainable product portfolio which includes products such as EVO, a bio-based yarn made from castor oil, Q-NOVA, a fibre made from regenerated raw materials, and Amni Soul Eco, a biodegradable polyamide.

Calzedonia Eco Tights.

Many Italian and international hosiery brands have already chosen these are other technologically-advanced sustainable yarns from Fulgar for their latest collections.

Calzedonia, for example, is this season once again renewing its sustainable tights, leggings and socks line by choosing Nylon 6.6 green Q-NOVA, the 100 per cent sustainable polyamide obtained from regenerated raw materials. It is Global Recycled Standard (GRS 2015-005 certified by ICEA) and EU Ecolabel certified.

Elsewhere, Sarah Borghi, a luxury Italian-made hosiery brand known for cutting-edge style and materials research, is offering a range of tights known as the Green Collection, which the brand hopes will demonstrate that "the Italian product can finally also be eco-sustainable".

This is achieved through the use of Amni Soul Eco biodegradable yarn by Fulgar, which combines new-generation sustainable yarns with outstanding comfort and durability. As well as using Amni Soul Eco, Sarah Borghi has also included other Fulgar products like EVO and Q-NOVA in its Green line.

Tightings, a contemporary brand launched by the Mantova-based Duelegs Bbf Group, is offering a fusion of latest-generation seamless tights and timeless leggings. For this season, the company has chosen Fulgar's EVO yarn for its Celeste range which is derived from sustainably-grown castor oil seeds. It has also selected Fulgar's Q-NOVA fibre for its Ambra line, successfully combining looks, comfort and environmental awareness.

Celeste by Tightings.

Q-NOVA recycled fibre was also the choice of Calzificio Schinelli, an established producer of high-quality hosiery, for its Eco Hosiery line of environmentally-aware tights with a contemporary style, while Donna BC, a brand that is part of the Mantova-based Calze B.C. group, has chosen Q-NOVA and EVO to extend its offer of products using eco-friendly yarns.

## Portfolio

This wide ranging use of Fulgar's sustainable yarn portfolio comes as no surprise to Massimo Bensi, president of CSC Enterprise, a services company that offers training, consultancy, testing and fashion advice to the region's hosiery sector.

"In recent years there's been a lot of talk about green issues and marketing based on sustainability without attracting a great deal of interest," he says. "Now it's become a hot topic for everyone. Consumers are looking for these values in the products they buy. Hosiery producers in the district always place an emphasis on innovation, and they have invested a lot of money in new, low environmental impact technology and materials. All companies have included green items developed and produced in our district in their fashion collections."

His colleague, Davide Bonassi, Director of the CSC Enterprise Services Centre, agrees, offering an invitation to those companies interested in developing their environmentally friendly portfolio. "Our laboratory and our skills are available for the district to support companies in developing increasingly sustainable and environmentally respectful products," he says.

"Certifying products and processes is an investment that encourages confidence among our commercial partners and end clients."

For Fulgar, this take-up of its products by companies striving to meet the demand for increasingly sustainable products is a clear substantiation of its work over the last decade and its investment in R&D. "A commitment to environmental issues has also contributed to our success, expressed through projects and initiatives involving the entire production chain and sustainable products," the company says.

Fulgar is now present in all sectors of the textile industry, from hosiery to circular knits, intimate wear, beachwear and sportswear, offering products, it says, that stand out for their quality and uniqueness, while always respecting the Made in Italy textile tradition.

The company is also the exclusive distributor in Europe and Turkey of the Lycra Fibre, Lycra T400 and Elaspan Fibre brands. In 2012 Fulgar also forged a partnership with the Solvay group, becoming distributor and producer of Emana fibre, Amni Soul Eco and Q-Skin powered by Amni Virus-Bac Off mainly for Europe, North Africa and the Middle East. The intimate link between sustainability and innovation that underpins the company's work has also led to the introduction of its latest polyamide with antiviral and anti-microbial properties, a crucial priority for the textile industry in the era of Covid-19. KTJ

# New developments from Mayer & Cie

The latest developments from Mayer & Cie include upgrades to its new mattress-ticking machine, the introduction of new needle technology from Groz Beckert and updates on its digital offering.

Equipped with new features to improve yarn tension, Mayer & Cie's latest machine for the production of mattress ticking fabrics has completed its field tests with the machine now commercially available.

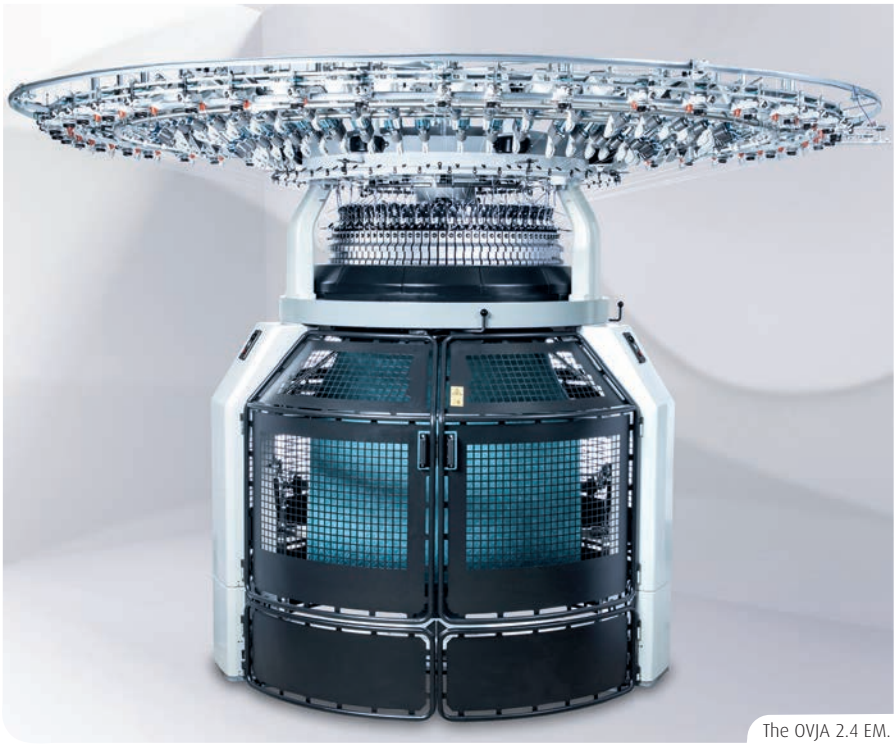
For Mayer & Cie, the requirements of mattress cover knitting machines are relatively standardized. What customers mostly want is a combination of production performance, variety of patterns and user friendliness.

That, says the company, is what the OVJA 2.4 EM offers – a machine that was first unveiled at the 2019 ITMA.

With a system density of 2.4 per inch and a higher rev count the electronic jacquard machine reaches a speed factor of 950 (on 38 inches). So it produces up to 30 kilograms of mattress cover fabric per hour which, says the company, makes it demonstrably the world's most productive circular knitting machine for mattress cover fabrics.

The OVJA 2.4 EM's extensive and uncomplicated variety of patterns is also due to the company's renowned electronic single needle selection system while details like the horizontal weft yarn guide deliver additional user friendliness.

Since its launch in 2019, the OVJA 2.4 EM now includes a new thread fluctuation control system positioned on every second feeder. By emitting a controlled air stream, this allows the machine to maintain a constant yarn tension especially at high rpm. The advantage of this new system is that it helps avoid thread loops and drop stitches.



The OVJA 2.4 EM.

Elsewhere, Mayer & Cie notes the popularity of its OVJA 1.6 EE 3/2WT which uses three-way technology in the cylinder and two-way technology in the rib dial. This model is especially suitable for the production of multi-coloured designs along with microstructure elements, which makes it the perfect machine for design enthusiasts such as Byborre, an innovative knit lab from the Netherlands.

Mayer & Cie has also announced the use of a new needle development from Groz-Beckert used in its Relanit 3.2 HS machine. Described as a solution aimed at preventing damage to cams and cylinders, the new needles include a predetermined breaking groove to help prevent plating errors and needle butt breakages.

Latch damage or latch failure on needles that have reached their wear limit can mean that yarn loops are not formed correctly and gather on the needle until the needle shank is overloaded causing the needles to bend in the cylinder. These needles can jam between the cylinder and cam track, which poses a risk of consequential damage on the cylinder and the needle cams.

To avoid this, Groz-Beckert has developed a solution specifically for use in high speed machines. The predetermined breaking groove is positioned behind the loop sliding area

Needle with predetermined breaking groove in the needle shank.

and ensures that the needle breaks in a controlled way when overloaded. This reduces the risk of costly damage to the cylinders and cams even at high machine speeds.

Mayer & Cie says it is also seeing increasing interest in its latest machine for fleece fabrics. Launched at the Shanghaitex trade fair in 2019, Mayer & Cie China's MFC 3.2 is a new machine for manufacturing three-thread fleece. The MFC 3.2 was the first in-house development by the German circular knitting machine manufacturer's Chinese subsidiary and is exclusively targeted at domestic markets. It produces light to heavy linings and is specially geared to processing polyester yarn.

"Three-thread fleece linings are popular all over the world albeit with important regional differences," explained Marcus Mayer, Mayer & Cie.'s technical director. "In Europe and America customers appreciate heavier, warm cotton fabrics, whereas in Asia light, fluffy fabrics made of mixed synthetic fibres are preferred. That is why the MFC 3.2 is a major addition to our Chinese portfolio."

The new Chinese three-thread fleece machine for domestic markets is based on the established Mayer & Cie. MBF 3.2, the qualities of which deliver the goods in the MFC 3.2. They include the high quality of material on both sides of the fabric and the production of challenging weaves. At the same time, the Chinese Mayer & Cie. team attached importance to catering for local requirements, first and foremost processing polyester yarns. Thanks to cam parts developed in-house the new machine performs these tasks reliably and efficiently. At up to 30 rpm on a 30-inch diameter cylinder the MFC 3.2 produces three-thread fleece for sports- and leisurewear.

Mayer & Cie is keen to note, however, that the MFC 3.2 is more than a three-thread fleece machine. A conversion kit transforms it into the MSC 3.2 II, the most popular machine in Mayer & Cie. China's domestic portfolio. The conversion works in both directions, which further upgrades the single jersey machine because, as Mr Mayer notes, "in the highly saturated Chinese single jersey market the fact that the MSC 3.2 II can be converted into a three-thread fleece machine is an important selling point."

As far digital knitting solutions developments go, Mayer & Cie has confirmed that the my.shop knitlink system has now been launched in selected countries. In the near future, the web shop for spare parts will be also be widely available. Other features of knitlink are not marketed yet.

All machines are now equipped with MC5 (Machine control 5) which offers a number of advantages to knitting mills. For example, hardware with long-term availability to match future requirements such as canbus-connections and peripheral devices (from other manufacturers) can be integrated more easily, while there is one machine control for all machines from the Mayer & Cie portfolio - single and double jersey, mechanical and electronic machines.

With MC5, customers can also participate in Mayer & Cie.'s future software developments while older machines can also be equipped with MC5, which facilitates spare parts stock. KTJ

## Promising outlook

Mayer & Cie generated group sales of around €72 million in 2020, a 20 per cent decline on the previous year, making it the second year in succession in which the the Albstadt, Germany-based firm has reported a negative result.

Looking ahead, in contrast, the outlook is much more promising, the knitting machine specialist said, adding that since late summer 2020 and the end of the first wave of coronavirus infections, the company has benefited from a marked recovery in all of its markets.

The Mayer & Cie management team.

Thanks to this positive trend Mayer & Cie now anticipates a successful 2021 financial year while in future, the management team will be counting on increased flexibility to offset demand fluctuations better.

According to Mayer & Ci. managing partner Benjamin Mayer, in 2019, world trade disputes and a number of local trouble spots brought major sales losses, an adverse market situation that was impacted further in 2020 by the coronavirus pandemic. "At the end of 2019 we adjusted our personnel structure to the decline in demand and that would probably have seen us through 2020, but no-one was expecting the pandemic," said Mayer.

As a consequence Mayer & Cie's group result for 2020 was around €72 million, a decline of more than 20 per cent on the previous year. In 2019 sales were already down 12 per cent on 2018 despite the launch of a new product range —braiding machines — in Albstadt. Comparing 2018 and 2020 sales directly, the downturn was 32 per cent.

# Mattress ticking operation eyes further growth

Canadian circular knitter Maxime Knitting is experiencing an increase in demand for its mattress ticking products prompting the firm to invest in both its on and off-shore manufacturing operations.

One of Canada's largest circular knitters is continuing to expand its operations across North America, just 15 years after it entered the mattress-ticking sector.

Maxime Knitting is one of the largest circular knit manufacturers in North America, running its knitting hall, showroom and administrative offices from a 125,000-square-foot headquarters near Montreal.

The family-owned business has been involved in the industry since 1985 and over the past 13 years, has developed an expertise in mattress ticking, a shift from its original role as a supplier of knitted fabrics to the apparel sector.

When the business was founded, Canada's apparel industry was booming but, as the industry shifted to Asia and Central America, Maxime Knitting's business began to suffer and it became apparent that company couldn't compete with lower prices offered by offshore suppliers.

Company founder Denis Theriault saw a move to mattresses as a possible solution and teamed up with experienced knitter, Lorne Romoff, who is now vice president of sales and marketing. The key was being able to provide customers with the opportunity to place orders for small lots, but more frequently. Major mattress manufacturers such as Sealy Canada came on board, impressed by the short lead times and reduced logistics costs that became apparent when sourcing from a local supplier.

## Production

Now a regular on the annual Profit 500, the definitive ranking of Canada's fastest-growing companies, the company understood that breaking into the US market would be difficult but it concentrated on small and medium sized accounts. The additional business has ramped up production schedules with Maxime now running more than 80 circular machines during three shifts, seven days a week at its Montreal site. To better serve its American accounts, the company also leases a 50,000 square-foot warehouse in Stoneville, N.C., where it stores around 100,000 square yards of fabric.

> "Our business is constantly changing, and it's important that we stay current."
>
> *Maxime Thériault*

Company president Maxime Theriault.

Maxime offers a range of fabrics made from numerous yarn types including organic cotton, tencel, recycled polyester, as well as rayon blends such as rayon-cashmere and rayon-silk. Speciality offerings range from super-stretch knits to "blister" constructions with 3-D effects. The company also makes use of ultra sonic bonding technology, which, unlike traditional stitching and sewing techniques, allows it to combine different fabrics or materials without the use of thread.

This technology eliminates the need for quilting, removing one step in the manufacturing process of mattresses.

Fabrics are also available with a full range of high-performance finishes, such as aloe vera, as well as cooling, wicking and antimicrobial options, the latter of which has of course seen a surge in demand following the onset of the coronavirus pandemic. These include the proprietary MaxBreeze brand, which includes phase-change microcapsules to absorb excess heat and maintain a comfortable sleep surface.

A further string to its ever-expanding bow is TM Couture, the company's automated cutting and sewing facility, which offers a new range of options to its customers. Instead of buying a cover or border fabric and then sending it to another company for sewing, finishing or laminating, Maxime can now provide all of those services in-house.

Images: © Maxime Knitting

## Vertical

The whole operation now occupies five sites with a total of 350,000 square feet of space including three sites in Montreal, a 50,000-square-foot production plant in Guadalajara, Mexico, and the distribution center in North Carolina.

In 2016, Maxime also opened an Innovation Campus near its main plant in Montreal. The C$3 million facility has 10 knitting machines, which are used by the design team and for technician training as well as for producing samples for customers. "We can now produce samples in less than 24 hours rather than the two or three weeks it used to take," Denis's son, Maxime Theriault, president of Maxime Knitting since 2014, recently told *BedTimes*.

The site in Mexico, which began production at the start of 2020 is equipped with the same machinery as the company's flagship facility in Montreal. It offers everything from knitting and finishing to complete cut-and-sew covers.

As Romoff told the *BedTimes*, the plant in Mexico provides an alternative for the "price- sensitive customer — particularly larger bed producers looking for a long-term strategic partner. This facility enables us to hit lower price points that would be difficult to achieve at our Montreal facilities and provide the fabrics our customers need to stay competitive."

The knitting hall at Maxime Knitting.

Such has been the growth of the mattress ticking offering, there are now proposals for further expansion with plans in the pipeline to add a further 50,000 square feet of capacity and new machinery in Mexico this year to keep up with growing demand.

Currently, there are 16 knitting machines on-site while in Montreal, Maxime the machine bank includes 14 recently installed models which were complemented by a second finishing line that arrived last year.

"We are always looking for new ways to expand our capabilities and improve our efficiencies," Theriault said. "Our business is constantly changing, and it's important that we stay current."

The company now employs around 250 workers in Montreal and an additional 135 workers in Mexico and the United States. At times of peak volume, the company's total workforce grows to as many as 500 workers. KTJ

# Merino offers new route to tailored knits

A collaboration between The Woolmark Company, flat knitting machine manufacturer Shima Seiki and three leading merino wool manufacturers has resulted in a 'first of its kind' capsule collection that offers a new interpretation of tailoring by using an innovative form of knitwear.

Using yarns from Filati Loro Piana, Tollegno 1900 and Zegna Baruffa Lane Borgosesia, the Merino wool collection comprises three outfits that provide a modern and urban interpretation of the classic formal look using knitted fabrics, rather than traditionally used wovens. The garments are a showcase of the latest knitting technology from Shima Seiki as well as Woolmark-certified Merino wool yarns.

The fabrics have a 'double face' structure comprising two layers of knits, the first made using Merino wool yarn which provides a beautiful texture and luxurious touch, and the second made using a TPU Evolution yarn, from Italian company CoatYarn SRL, which provides a 'peach-like' touch. The result is a garment that is more rigid, yet elastic and soft to touch.

The image in the centre is a coat, jumper and trousers were made using Lora Piana Yarn Winter Island 13 micron 2/150 Merino wool yarn with CoatYarn's TPU Evolution yarn. The coat and trousers were knitted using Shima Seiki's SVR123SP 14 gauge machine, while the jumper was knitted using Shima Seiki's SWG FIRST124S machine that knits particularly lightweight garments.

The combination of the two knitted materials, which are laminated together during a solvent-free heat vapour treatment, provides wool knitwear garments with a new and contemporary look. As well as having wool's usual benefits including comfort, natural stretch, thermoregulation and odour- and wrinkle-resistance, this unique fabrication provides additional performance benefits such as water repellency and minimal chance of pilling.

The image on the right shows a coat, jumper and trousers using Zegna Baruffa Lane Borgosesia's Millennium EcoTeflon 2/60 Merino wool yarn with CoatYarn's TPU Evolution yarn. All three garments were knitted using Shima Seiki's SVR123SP 14 gauge machine.

This dress on the left was knitted on Shima Seiki's N.SVR183SP F.14-gauge machine using Tollegno 1900's Harmony 4.0 2/48 Merino wool yarn with CoatYarn's TPU Evolution yarn. The bomber jacket was knitted on Shima Seiki's SRY183LP 14 gauge machine, that provides a three-dimensional padded effect, using Tollegno 1900's Re-Abarth 2/37 yarn (60% Merino wool, 40% recycled polyimide) with CoatYarn's TPU Evolution yarn.

"All three of the outfits originated from the same creative matrix,

Tailored knits from Tollegno.

Tailored Piana has collaborated with Woolmark.

Tailored knits from Zegna.

conceiving a man and a woman always in motion, metropolitan, and with this thought in mind we have produced structures with the latest generation machines from Shima Seiki, using Merino wool yarns from three different spinners from the Biella region," explained Creative Director of Shima Seiki Italia, Vittorio Branchizio, highlighting how the production process is an environmentally friendly one that avoids the traditional cut and sew technique and uses exactly the correct quantity of yarn, thereby resulting in less fabric waste than traditional garment manufacturing. Moreover, no linings are needed with these garments.

In this particular project, all the yarn suppliers were Italian which helped minimise its environmental and financial costs of transportation.

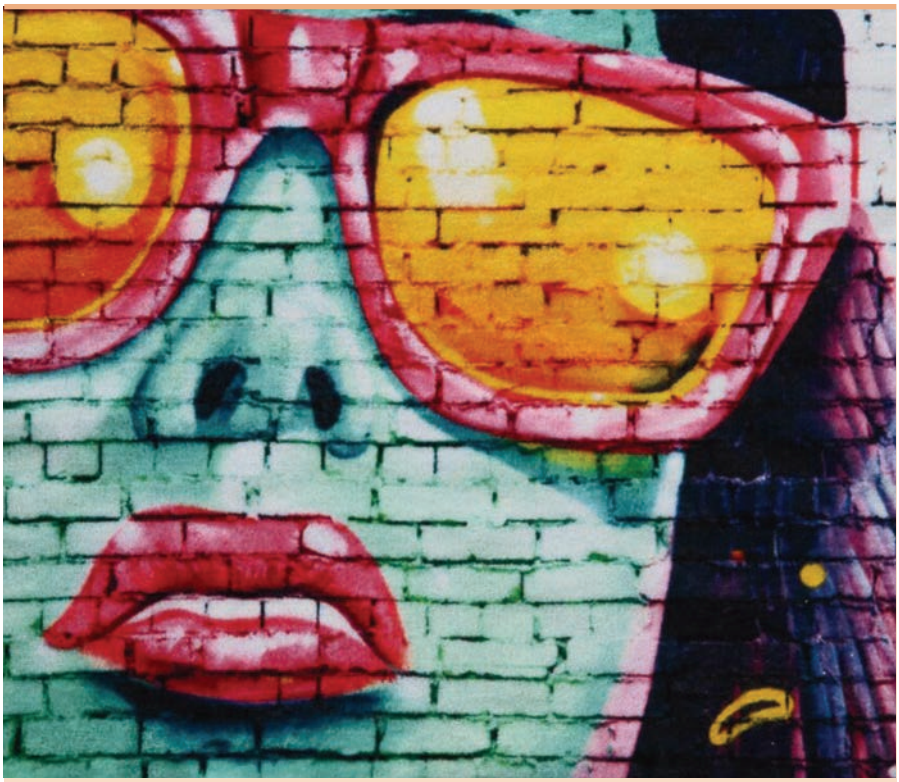
"Collaborations such as this not only stimulate the supply chain to undertake innovative R&D, but it also provides new opportunities for the whole textile supply chain, from manufacturers to brands, to create new commercial opportunities for wool," added Birgit Gahlen, Research & Development Manager for Europe, The Woolmark Company.

# Functional goes fashionable with advanced leakproof underwear

Auckland - New Zealand technology firm Confitex has developed an absorbent and leakproof knitted fabric which can be used in the manufacture of incontinence underwear, negating the need for a plastic layer.

The eco-friendly, absorbent knit offers consumers a discreet, effective and sustainable alternative to single-use pads and liners.

The new textile is said to be unique in that it's fully waterproof without the use of a layer of PU plastic. It was invented by Confitex founder Frantisek Riha-Scott,



# Significant savings from warp knitted terry

Obertshausen - The latest double -sided, warp knitted terry fabrics from Karl Mayer are said to demonstrate the superior productivity and flexibility of the company's TM 4-TS EL machine when compared to terry fabrics produced on weaving technology.

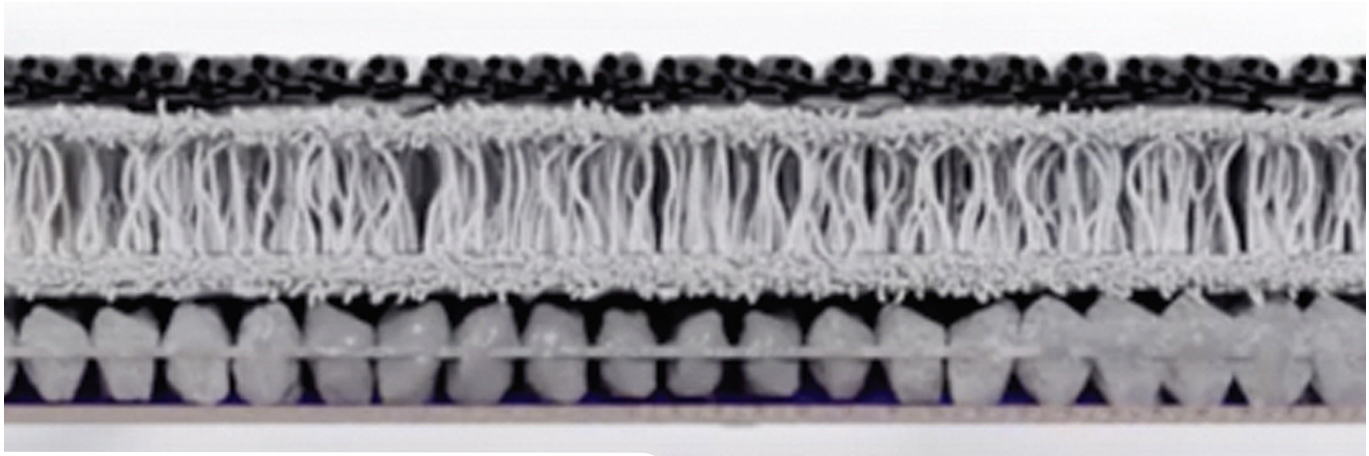
The textile in this image was produced on a TM 4-TS EL with double-sided fabric to ensure that the finished product is not only a must-have bathing accessory, but also a real eye-catcher.

One side features a dense layer of cotton loops. It quickly absorbs moisture from the skin after bathing and nestles gently against the body. The other side consists of sheared polyester. Its soft texture also has a smooth finish making it both easier to print on and quicker to dry.

The imaginative design was created at Zimmer Austria using a digital printing process with Karl Mayer's textile developer, Melanie Bergmann, delighted with the results: "The colours are extremely vibrant and vivid while the contours are sharp. Even the finest lines are clearly defined," the textile engineer said.

Warp knitting technology with a firmly integrated terry loop ensures the longevity of toweling fabrics with the fluffy fibre layer said to be extremely resistant to thread pullers. The long service life and ecological advantages in production are also said to distinguish warp knitted terry articles from their weaving counterparts. The TM 4-TS EL does not require compressed air like conventional airjet rapier looms and therefore consumes around 87 per cent less energy per kilogram of fabric produced. The sizing process is also eliminated in warp knitting. This saves textile chemicals, wastewater and energy to the tune of approx. 0.20 USD/kg.

This corresponds to about 30 per cent of the manufacturing costs – excluding yarn – for the production of the raw material. Apart from saving costs, the terry warp knitting machine is extremely efficient. With a width of 186 ins and a speed of 800 rpm, the TM 4-TS EL produces around 1,800 kg of terry cloth weighing 400 g/m² every day in 24-hour operation. This is around 250 per cent more than on an airjet rapier loom.



Confitex has developed an absorbent and leakproof knitted fabric which can be used in the manufacture of incontinence underwear, negating the need for a plastic layer.

a designer with a passion for endurance ski racing.

"I originally wanted to create high-performance absorbent sports underwear so athletes didn't need to stop for bathroom breaks during long races," he says. "But I quickly realised that reusable leakproof underwear had a much wider application – it would also be life-changing for the one in three women and one in five men who live with light-to-medium urinary incontinence."

Riha-Scott's research demonstrated that the layer of polyurethane (PU) plastic usually used in waterproof fabrics isn't fit for purpose – not only because it takes centuries to break down in landfill, but because it can't be stitched, heat-sealed, moulded or tumble-dried and it is not breathable when worn.

Drawing on his textile design training and extensive research into microscopic textile technology, Riha-Scott created and patented the world's first and only fully waterproof fabric that doesn't rely on a layer of PU plastic for its efficacy, and used it in a range of absorbent underwear for men and women.

He launched the Confitex label at New Zealand Fashion Week – tackling the taboos around bladder leakage head-on and making international headlines as the world's first fashionable range of washable incontinence underwear.

In June 2020, as the Covid-19 pandemic carved up the world, Confitex launched its second-generation range of trunks under the Confitex for Men label, as well as a new Just'nCase range of absorbent period-proof and pee-proof underwear for women and reusable nursing pads for breastfeeding mothers.

Confitex's textile also performs effectively when used in period underwear – providing a more eco-friendly alternative to single-use pads, tampons and other brands of period pants, which almost invariably contain a layer of PU plastic.

And because Confitex products don't contain that PU plastic layer, they can safely be tumble dried without warping, scrunching or losing their leakproof performance.

Confitex's products have been independently tested by International standards laboratory UL, verifying that the textile created by Riha-Scott is at the forefront of high-performance absorbent textile technology.

"We know that our textile technology is superior because our underwear and nursing pads have been independently tested against other leading washable brands, and have come out on top for absorbency per square inch with the least bulk," says Riha-Scott. "That sounds like a technicality, but it makes a huge difference to the comfort and confidence people experience when they use our products."

## Mattress ticking specialist outlines anti-viral treatment efficacy

Waregem - Circular knitter BekaertDeslee has confirmed that its new anti-viral treatment technology for its mattress ticking products reduces the viral activity of SARS-CoV-2 by 99.97 per cent after two hours.

Virase is the latest addition to its Sleep Dimension 'Clean' family of products, which is designed to provide a fresh and healthy long lasting hygienic sleep environment.

The company says it is first in the industry to provide proof of a higher than 99 per cent reduction (a 2-Log reduction) of viral activity within two hours on the surface of an in-house produced mattress textile although variances are possible depending on the fabric construction.

Bekaertdeslee tested the Virase treatment in an independent European lab for its efficacy against the SARS-CoV-2 virus on in-house produced mattress textiles. Results confirmed an instant (2 hours) efficacy (99.97% reduction) of the Virase treatment on both polyester and polyester viscose fabrics.

The test protocol was executed in accordance with the international standard for determination of antiviral activity of textile products, ISO 18184.

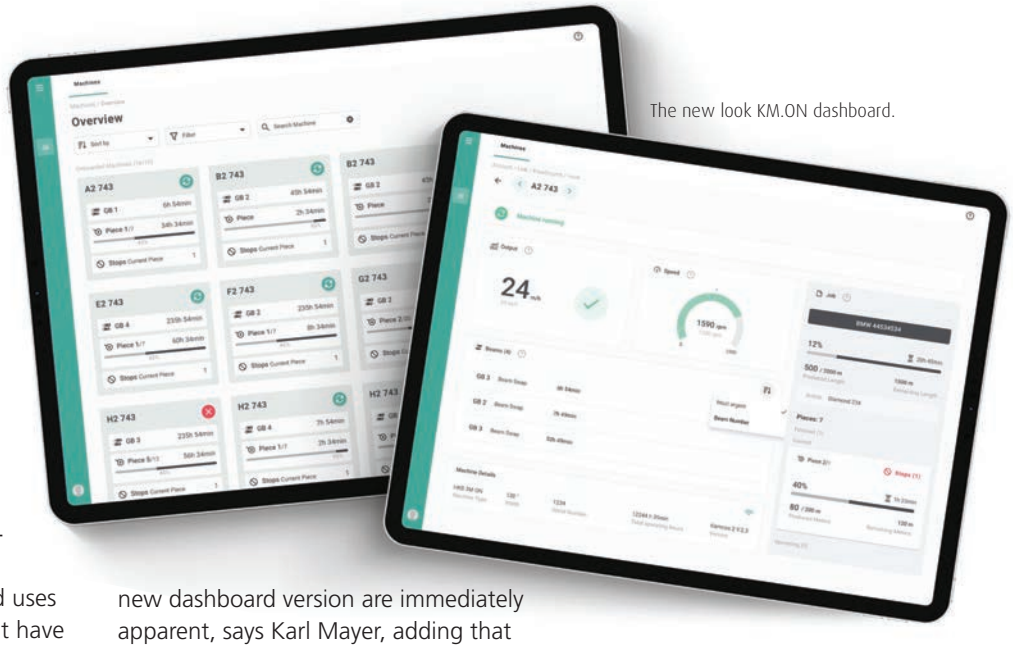
BekaertDeslee has also launched PPPRMNT, a natural antimicrobial finish that offers protection against bacteria and dust mites. By inhibiting their growth, PPPRMNT is said to deliver a safe and environmental solution to keep mattresses fresh and clean.

# Upgrade for KM.ON digital dashboard

KM.ON, Karl Mayer's digital development subsidiary will unveil its new-look dashboard at the upcoming ITMA Asia + CITME exhibition.

The latest dashboard design for Karl Mayer's KM.ON digital management service is designed to offer greater clarity, functionality and ease of use for the warp knitting industry.

Established in Frankfurt in 2017 as the Karl Mayer Digital Factory, the KM.ON brand offers a broad portfolio of digital solutions. Using the k.management dashboard, KM.ON customers have a direct connection to their production – no matter when and from where. The smart tool provides a comprehensive overview of what is happening at production level and uses near-time data from machines that have been securely networked to the KM.ON cloud via the k.ey.




The new look KM.ON dashboard.

This provides an overview of all important machine key figures as a basis for efficient management. Decisions can be made quickly and soundly, and processes can be planned prudently. In the event of malfunctions and bottlenecks, rapid intervention is possible and the customer can save valuable time when completing routine work.

The dashboard – and its many benefits – was launched on the market at ITMA Asia 2018. It has now received a major upgrade. The new features are designed to offer even greater clarity, functionality and ease of use. Furthermore, the data quality and data availability have been optimised. Following further development, the tool works reliably worldwide – including in China.

Given the new design, changes to the new dashboard version are immediately apparent, says Karl Mayer, adding that the way information is presented has been fundamentally revised. It offers greater clarity and faster orientation in terms of colouring and structure.

Even the overview page, for example, with its reduced colour scheme and functional structure, invites you in and encourages you to explore. Instead of being displayed in a mix as in the previous version, key figures are now visually separated according to their function. "Every value has its framework," says KM.ON Product Manager Marcel Wenzel. "The content is easier to access and is also explained in a way that is easy to understand."

For each key figure displayed, more detailed explanations can now be obtained by clicking on the adjacent question mark symbol. By clicking the "Help" question mark symbol, which is superimposed above the entire application in the top right-hand corner, the user can also access the user manual. The reference guide contains background information on the complete application, including publication references.

The users can adjust the language based on their preference under their ❱

KM.ON Product Manager Marcel Wenzel.

personal "user settings" by clicking their user avatar. The available languages include German, English, modern Chinese and traditional Chinese.

These extensive changes were driven by discussions with customers. As part of these joint exchanges, the desire for simplicity emerged as a priority. "Given their profession, our customers are not digital natives. They want simple, intuitive solutions, without usage barriers," says Wenzel, explaining that his team closely followed user wishes when optimising the dashboard content.

## Decisions

Regardless of where the machines are located and information is needed, the dashboard provides data in near real time. On the overview page, the machine name and the next upcoming beam change time are displayed for each machine as before. New symbols now provide information about the status of the machine in eye-catching colours. Possible states are Stop, Running and Offline. The symbols illustrate the degree of production utilisation, even when briefly checking the homepage. A filter function can also be used to detect machines that are idle and by extension, capacity reserves or technical problems.

Other new display features include the number of stops and the remaining time when processing an item, including the number of items per job.

A sorting function for all networked machines based on specified categories makes it possible to optimise production. By prioritizing according to remaining production time and upcoming beam replacement time, the capacities for item removal and beam replenishment can be planned in detail. In turn, the number of stops when producing an item allows conclusions to be drawn about the fabric quality produced, for example.

As with the overview page, the details page for each individual machine has also been decluttered. As part of a structured display, an adjusted offering appears, consisting of information on status, output, current and maximum speed, upcoming beam change times for all warp beams – sorted by urgency – as well as job stage with remaining time per item and for the complete job.

Information on the machine type, serial number and available KAMCOS version are found at the bottom of the details page.

## Pre-programmed

The new k.management dashboard was extensively tested with customers in Germany and the USA in February this year. The roll-out to all KM.ON customers then began in April. In order to attract other textile companies, the new upgrade will be presented at the Karl Mayer stand at ITMA Asia, which is being held from 12 to 16 June 2021.

Additional changes are in the pipeline for the year. After a transitional phase, there are plans to switch from the previously free mode to an optional paid-for mode. A fee will then be levied in exchange for extended information and functionalities.

In addition, Wenzel and his team are already working on new ideas. "We are constantly asking ourselves which target groups need which additional information. Step by step, we are developing our dashboard together with our customers," he says.

The current version already offers possibilities for suitable further developments. For example, the overview page could help the machine operator to plan their to-do list even better by incorporating additional key figures, or attract new stakeholders such as managers and directors with strategic rather than operational information. KTJ

## New digital design tools

KM.ON is launching two new products for its tricot and raschel warp knitting machines in the first half of this year, both of which will be available through its k.innovation web-based design tool.

k.innovation – Core and Style provide design tools with which users can work together with partners in a single project, allowing both parties to seamlessly exchange ideas, concepts and products within one system. "Easy coordination, easy collaboration - a real game changer," says KM.ON, adding that the news systems enable the quick creation of innovative products by sending designs directly to a machine with a single mouse click. "k.innovation helps to shorten your time to market workflow which saves time and money."

Specifically, k.innovation – Core is a lapping editor for use on Karl Mayer's renowned HKS 3-M ON tricot machines. Knitting mills are able to create their own lappings without the limitation of 36 repeats for more flexibility.

k.innovation – Style is a tool to help develop textiles with complex designs, functional zones, and style-relevant contours for the RSJ 4/1 ON raschel machines.

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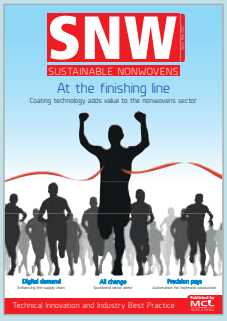




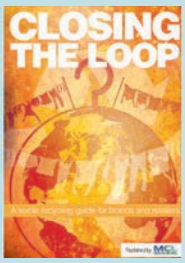







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# Fibres sector drives green evolution

The latest developments from across the yarn and fibre sector have been designed to meet the growing trend for more sustainable garments and textiles.

Infinited Fiber Company, which is working with a number of leading brands including H&M, Bestseller and Patagonia on the production of recycled knitwear and other knitted textiles, is to build its first commercial plant for Infinna regenerated fibres in Finland.

With the location to be confirmed by September, the plant's entire output is intended for export and the company is currently negotiating offtake agreements with several brands. It believes agreements will be in place before the end of 2021, securing the factory's entire output capacity for several years.

The total investment for setting up the plant is estimated at around €220 million, and it will be operational by 2024.

"We are seeing great demand for our circular Infinna textile fibre from global fashion brands and setting up our own plant is a response to this demand," said cofounder and CEO Petri Alava. "While technology licensing remains central to our long-term business strategy, this plant will speed up the availability of Infinna to the global fashion and textile market in the short to medium-term."

Infinited's technology turns cellulose-based raw materials, like cotton-rich textiles, used cardboard or rice or wheat straw, into Infinna, a unique, premium textile fibre with the natural, soft look and feel of cotton. The company currently operates pilot facilities in the cities of Espoo and Valkeakoski in Finland, with a combined nominal capacity of 150 metric tons per annum. The planned flagship factory will have an annual capacity of 30,000 metric tons per year and will use textile waste as feedstock.

PrimaLoft Bio – the world's first synthetic insulation made from 100% recycled and biodegradable fibres.

Infinited Fiber Company is to build its first plant.

More than 92 million metric tons of textile waste is produced globally every year with much of it ending up in landfills or incinerators. At the same time, textile fibre demand is increasing, with Textile Exchange estimating the global textile fibre market will grow by 30% to 146 million metric tons in 2030.

## Carbon negative

Meanwhile, a collaboration between Primaloft and Origin Materials has resulted in a new program to develop carbon-negative, insulating, high-performance fibres. The fibres will be used across a diverse array of end products, including insulating fibre for outdoor, fashion, and lifestyle brands, as well as home goods applications such as hypoallergenic insulated bedding.

The companies say they will work to rapidly develop and commercialize new products derived from Origin Materials' platform. The collaboration has made use of PrimaLoft role as a speciality producer of insulating fibres and filaments with over 900 global brand partners, including iconic brands like Patagonia, Stone Island, L.L. Bean, Lululemon, adidas and Nike, as well as a

large global network of manufacturers that employ a wide array of textile processes to make its products, including extrusion, carding, spinning, finishing, weaving, knitting, dyeing, airlaid, meltblown, and other technologies.

PrimaLoft says it is well-positioned to partner with Origin Materials to provide the textile industry with novel carbon-negative material solutions. The collaboration will focus on developing fibres from carbon-negative PET and next-generation polymers produced with the Origin Materials technology platform.

The joint venture builds on PrimaLoft's *Relentlessly Responsible* performance and sustainability platform, which includes PrimaLoft Bio, which was developed and launched into the market in late 2018 as an effort to battle microplastics in the ocean; PrimaLoft P.U.R.E., which provides materials manufactured with greater than 50 per cent $CO_2$ savings; and PrimaLoft's post-consumer recycling initiative. The next target for the company is non-petroleum based raw materials, including products that biodegrade and other circular economy solutions.

Origin Materials says its technology platform, which turns inexpensive, sustainable wood residues into carbon-negative materials, will help revolutionize the production of a wide range of end products, including clothing, textiles, plastics, packaging, car parts, tires, carpeting, toys, and more with an approximately $1 trillion addressable market.

In addition, Origin Materials' technology platform is expected to provide stable pricing largely de-coupled from the petroleum supply chain, which is exposed to more volatility than supply chains based on wood.

"We are thrilled to partner with PrimaLoft, a leader in sustainability and advanced, engineered insulating products for apparel, outdoor gear, and home goods. We have a shared vision for how materials can help the world transition to net zero carbon as soon as possible," said Origin Materials co-CEO Rich Riley. "Together, we can develop innovative solutions that will bring tremendous value to PrimaLoft's customers and result in a significant reduction of carbon emissions in the apparel, outdoor, and home goods sectors."

Sensil has launched BioCare.

"Partnering with Origin Materials, a company on the cutting edge of carbon negative materials, is a significant step in our Relentlessly Responsible mission," added PrimaLoft president and CEO Mike Joyce. "Developing products that perform at the highest level while making the least impact on the environment is our ultimate goal. Working with Origin Materials to achieve those high-performance standards through non-petroleum based means is a huge stride forward. We're excited to work together to bring new technologies to a variety of industries."

## Biodegradable

For the apparel sector, Nilit has launched Sensil BioCare, a sustainable premium nylon fibre designed to break down in land fill and marine environments significantly more rapidly than conventional nylon.

The new fibre is the latest addition to the broad Sensil portfolio of responsibly manufactured, environmentally considerate premium nylon products which the company says benefit the entire textile supply chain.

Sensil BioCare has undergone a series of independent tests in both landfill soil and seawater simulations to understand the potential impact on both ecosystems. According to Nilit, the new fibre showed "remarkable disintegration in both simulated environments during the test periods in comparison to nylon fibre that does not include the special technology".

Specifically, initial testing according to ASTM D6691 Standard Test Method For Determining Aerobic Biodegradation Of Plastic Materials In The Marine Environment and ASTM D5511 Standard Test Method For Determining Anaerobic Biodegradation Of Plastic Materials Under High-Solids Anaerobic-Digestion Conditions indicates that Sensil BioCare yarns will break down more rapidly than conventional nylon. These promising findings point to reduced waste accumulation in both oceans and landfills.

Nilit notes that the technology used in Sensil BioCare will not wear or wash out nor will it interfere with other performance additives, finishes, or dyes. Resultant fabrics are described as long-lasting while also being very soft and aesthetically rich.

## Partnership

Also aimed at the apparel sector, the Lycra Company has launched its first performance fibres made from 100 per cent textile waste, a result of its partnership with Japanese trading firm Itochu Corporation.

Lycra says the new products lay the groundwork "for a more circular future", which is one of the brand's priorities under the framework of its Planet Agenda sustainability platform.

"This collaboration exemplifies the synergistic approach we have to develop products and technologies that support a more sustainable future for our vast global customer base," said Julien Born, Lycra's chief commercial officer.

Lycra sought a partnership with Itochu Corporation, which operates in a number of consumer-related sectors including textiles, as it developed the new fibres.

It says: "The new offerings pair the

brand equity and performance attributes of these leading cooling and warming brands with the sustainability benefits of textile waste, thus helping address a critical industry need."

The Delaware-based business says the introduction of Coolmax and ThermoLite to market represents "the first of several innovations" that it's working on in textile and garment recycling.

Customers can acquire the fibres in filament and staple forms, which are suitable for common textile processes and other uses.

Both Lycra and Itochu will assume responsibility for marketing the fibres, with the latter covering its native Japan and parts of Asia.


## Hyosung develops customized fibre solutions to address consumer demands

Seoul - Respected as a solutions provider across the global value chain from mill to brand to consumer, Hyosung has received increased requests from apparel companies for customized solutions that address their consumers' unique needs, which run all the way through this value chain. The primary need is to develop products that align with their customers' sustainability ethos.

"We are experiencing significant interested in our 100% GRS recycled creora spandex, Mipan regen nylon, and regen polyester – all of which save valuable resources from being removed from the earth," said Mike Simko, Global Marketing Director Hyosung - Textiles. "Having such a comprehensive package of recycled fibres is quite rare and we're excited to offer our partners the best possible range of sustainable product offerings."

Hyosung recently announced that it has combined its regen family of recycled yarn with its functional performance products and include:

- MIPAN regen aqua X: cool-touch nylon with UV protection
- regen askin: recycled cool-touch polyester with UV protection
- regen cotna: cotton-like polyester with the feel of a natural fiber
- regen aerocool: rapid moisture absorbing and drying polyester
- regen aerosilver: anti-microbial polyester
- regen aerolight: lightweight polyester with high-performance moisture managemen

According to Simko, sustainability has opened up an entire world of opportunity to innovate and bring value to the industry and newness to the consumer.

For more information on Hyosung, please visit: *https://blog.hyosungtnc.com/*

## Mattress

The trend for greater sustainability is also apparent in the mattress ticking sector.

CTC, a major provider of threads and yarn to the industry, has launched the Renu line of environmentally friendly industrial sewing threads made entirely from non-virgin materials.

Renu currently comprises environmentally friendly versions of three all-around polyester threads with wide-ranging applications across the fashion, furniture, mattress, PPE, industrial and other product segments.

"We are proud to offer these sustainable thread solutions," explained CTC President Matt Poovey. "The Renu line addresses growing industry and consumer demand for products made from non-virgin materials. These 100% recycled threads are designed to enable retailers, brands, and manufacturers to meet their sustainability goals and commitments while maintaining the productivity, seam performance, colorfastness, and chemical resistance characteristics they enjoy in our traditional polyester treads."

Certified to be free of harmful substances under the OEKO-TEX Standard 100, the current line-up of all-around eco-friendly products includes Renu ChampSpun recycled staple spun polyester thread, Renu Poly ChampCore recycled polyester-wrapped thread with a multifilament core, and Renu AeroTex Plus recycled textured polyester thread.

"Renu products contribute to the circular economy by reducing energy consumption, waste, and oil dependence," Poovey added. "They are engineered to CTC's extreme quality standards and are finished with their proprietary lubricants to ensure high productivity."

In terms of biodegradability, the fibres offer 93.8 per cent biodegradation in 646 days under ASTM D5511 conditions (landfill environment), 76.6 per cent biodegradation in 973 days under ASTM D6691 conditions (marine/ocean environment) and 12.9 per cent biodegradation in 120 days under ASTM D5210 conditions. stewater environment). KTJ

# Antibacterial & sustainable products in demand at Yarn Expo

Shanghai - The return of Yarn Expo Spring was warmly welcomed last month, amidst a backdrop of optimism for the domestic market's recovery and forecast. 387 exhibitors from six countries and regions joined the fair, whilst 21,204 visitors gathered to source at the National Exhibition and Convention Center (Shanghai).

Once again, the fair provided a series of digital options for those unable to travel to Shanghai, enhancing sourcing options and business results for all participants.

At this edition, fairgoers reported an increased popularity for hygiene, anti-bacterial and sustainable products, aligning with current trends that have been propelled forward by the pandemic. Notably, many suppliers used the fair as a platform to introduce some of these latest inspirational products to the market, giving credit to its reputation for promoting innovation and development.

Ms Wendy Wen, senior general manager of Messe Frankfurt (HK) Ltd commented after the conclusion of the fair: "We are proud that Yarn Expo has managed to support the industry throughout the pandemic, with two editions taking place in 2020, preceding last week's Spring Edition. Despite the disruptions to the supply chain over the past year, with the domestic market steadily regaining momentum, the industry can look ahead with some confidence."

She continued: "What has been evident at this edition is the optimism of participants. Exhibitors have noted the potential presented by pandemic-related products such as PPE and the increased demand for more sustainable, hygienic and innovative products which is set to remain in the long-term. Accompanied by feelings of continued strength in China's recovery, hopes are high for the future of the market.

"Lastly, we are glad to have again been able to engage both domestic and international companies through our online services and hybrid exhibition packages. And now as we look ahead to the Autumn Edition, we hope to welcome more overseas participants, in person."

There was also praise for the event from a number of exhibitors. "Yarn Expo is a leading trade fair in the industry and is an ideal platform to exchange the latest market information, to promote business interactions and meet potential new customers," said Mr Simon Huang, vice president, Commercial, Sateri, China. "In terms of products, we are focusing on anti-bacterial and lyocell products as people are now concentrated on leading healthy lifestyles due to the pandemic. I think consumer market trends will focus on health, safety, sustainability and convenience."

"Although our business was affected by the pandemic in the first half of last year, there was significant recovery in the second half which reflected the market circumstances as well," added Kyle Guo, senior executive, Yarn, Texperts India Pvt Ltd, India. "At this edition, we have received a lot of enquires about our organic cotton and have met with a great number of new customers, the visitor flow has been higher than last year."

Buyers also welcomed the return of the exhibition. "We often participate at Yarn Expo which is an ideal platform for sourcing," said Mr Yan, Sales Manager, Zhejiang Henglan Technology Co Ltd, China. "Our main purpose is to keep in touch with our existing suppliers and to meet more new exhibitors. We appreciate the chance to network at this fair and the overall result has been positive with an increased visitor flow from last year."

"Yarn Expo is an effective and one-stop sourcing platform and we've joined to meet existing and new customers," added Daniel Yang, Business Manager, Shanxi Qinyuan Textile Co Ltd, China. "The concurrent fairs are beneficial as together, they cover a wide range of products, from raw materials like cotton yarn to garments. We are optimistic about our business and market forecast as we have experienced a steady growth in orders in the last few months. All in all, I think this fair is very successful and we can see the potential and positivity in the market."

Yarn Expo Spring took place alongside Intertextile Shanghai Apparel Fabrics – Spring Edition, Intertextile Shanghai Home Textiles – Spring Edition, PH Value and CHIC. The next edition of the fair, Yarn Expo Autumn, will take place from 25 – 27 August 2021, once again at the National Exhibition and Convention Center (Shanghai) alongside the four concurrent fairs.

Yarn Expo Spring is organised by Messe Frankfurt (HK) Ltd and the Sub-Council of Textile Industry, CCPIT.

## Texworld Evolution to return in July

Paris - Faced with the uncertainties related to the COVID-19 crisis and the restrictions imposed on major international events, Texworld organiser Messe Frankfurt France has decided to renew the Texworld Evolution Paris - Le Showroom formula, in Paris, from July 5th to 9th.

Inspired by the concept developed with great success in February, this new edition is described as a must-attend rendezvous to meet the expectations of international fashion players.

The event will focus on a selection of the latest on-trend products from the textile trade shows Apparel Sourcing, Avantex, Leatherworld and Texworld Paris, chosen to allow buyers to build their collections and exhibitors to present their latest developments.

"This appropriate and innovative business solution has already seduced buyers from major ready-to-wear brands, young talents and many fashion designers to whom it has brought a fresh breath of creativity while offering a real meeting place to discover, hold fabrics in hand, get inspired and talk business," organisers said.

Praised by the European press, the first edition allowed several hundred buyers and fashion designers to physically explore more than 2,500 samples selected by the teams of Messe Frankfurt France from 75 international manufacturers from a dozen countries. During five days, buyers were able to exchange 3,235 requests related to collection projects or orders.

This latest event is expected to present an expanded offer compared to the previous edition, with an even wider selection of finished products from Apparel Sourcing and fabrics from Texworld exhibitors.

"This array of products will express the full creative potential of the fall-winter 2022 season," Messe Frankfurt added. "As in February, buyers will be welcome upon invitation in order to ensure an adequate flow of attendees. From the moment they arrive at the showroom, buyers will be provided with a digital tool specifically developed to facilitate direct contact with manufacturers for expressing interest, requesting samples or quotations, while enjoying an exceptional setting.

"And for those who are not able to visit the showroom, the experience continues online through the digital sourcing platform developed by Messe Frankfurt France with its partner Foursource."

## Intertextile showcases post-pandemic innovation & sustainability

Shanghai - The primary sourcing platform for the spring / summer season for the global textile industry wrapped up another successful edition last month. Intertextile Shanghai Apparel Fabrics – Spring Edition hosted nearly 2,600 exhibitors from 17 countries and regions and 80,533 buyers from 17 – 19 March, with well-received online and hybrid solutions running in tandem with the physical fair.

The main themes emerging from the fair this year included an increase in innovative products resulting from the pandemic, the benefits for both domestic and international companies to have an in-person event, encouraging prospects in the Chinese market as it continues to rebound, and hope that more of the main textile markets will do the same as 2021 progresses.

Ms Wendy Wen, Senior General Manager of Messe Frankfurt (HK) Ltd explained: "Following the two Intertextile Apparel editions in China in the second half of last year, we are delighted that we could offer another hybrid platform with new online solutions for the global industry to utilise this season. It was pleasing to see the number of exhibitors showcasing new products in response to the pandemic, particularly in the Functional Lab and All About Sustainability zones. And there are many positive signs and belief from participants here this week that the post-pandemic recovery in China will maintain its strength this year. We hope that by the Autumn Edition this August more of the global industry can gather here in Shanghai in-person to take advantage of this."

With consumers' increasing focus on the health protection their garments can offer as well as the ecological footprint, the fair's Functional Lab and All About Sustainability zones were must-visits for many buyers this edition, while innovations could be found in other

areas also. Just a few of the many exhibitors offering products in response to the latest trends were Alumo AG from Switzerland, with their Alumo & weba brands, who cooperated with HeiQ Viroblock to apply antibacterial and antiviral technology into their fabrics. Biella Manifatture Tessili from Italy showcased their Defender collection, which uses ViralOff technology to reduce the instance of viruses by 99%. Hong Kong's Hansk New Materials presented their health protection, hygiene protection and anti-insect collections, while Successori Reda from Italy, a manufacturer of sustainable pure Merino wool fabrics, created their S/S 2022 collection in a fully digital manner so as to ensure greater waste reduction.

This edition's fringe programme featured a number of events touching on innovation and sustainability, as well as opportunities in the current market climate, while the themes in the fair's ever-popular Intertextile Directions Trend Forum were heavily influenced by how society's model is being challenged by the pandemic. And rounding out the complete sourcing experience for the textile industry, Intertextile Shanghai Apparel Fabrics was once again held alongside Intertextile Shanghai Home Textiles, Yarn Expo Autumn, CHIC and PH Value.

Commenting on the show, Ms Zheng Liu, Product Manager, Alumo AG, Switzerland, said: "Amid the pandemic, we collaborated with HeiQ from Switzerland and added their antibacterial treatment to weba's products to cater to pandemic-related trends. These products are already in use in Europe and the US to make masks for the general public. The fair is an effective, prestigious platform for the industry to receive different customers in a centralized place over a short period of time. We can gather with existing customers while it is convenient for new customers to find us as well."

Ms Leanne Li, Operations Manager, Celeli (Shanghai) Trading Co Ltd, China, added: "Celeli has joined Intertextile for many years because it is a large-scale, professional exhibition with a good reputation. The fair is an important channel to discover new customers and since the pandemic, it has brought the industry together to create more opportunities for business exchange. As a high-end fabric supplier, we saw that pandemic restrictions had led to the increase of high-end fabrics in China. In the future, I think the domestic demand for imported fabrics will continue to grow and that Asian markets, especially China's, have huge potential."

## Performance Days continues with digital-only format


Munich – The next edition of the Performance Days trade fair, scheduled for May, will take place online only following ongoing concerns about coronavirus-related travel restrictions.

Organisers say the ongoing pandemic makes it "difficult or even impossible for many manufacturers and trade fair visitors to participate". It will subsequently be replaced by a digital event to be held across the week starting May 17th.

Marco Weichert, founder and general manager of Performance Days, says the elongated digital showcase will "provide the industry with even more updates on the season's fabric innovations, along with important additional information and the provision of intensive networking opportunities".

Set to be hosted on the event's Loop platform, which was launched just last month, organisers say the digital fair will retain the features of its typical physical events, held every May in Munich.

This includes a programme of informative talks as well as a marketplace for visitors to browse a curated collection of the latest functional fabrics. To this end, Performance Days has integrated 3D imaging tools and video animations to optimise the experience for viewers, who can get a realistic rendering of the products they cast their eyes over.

What's more, Performance Days promises "comprehensive networking opportunities" amongst attendees, with an interactive Q&A feature to be installed amidst scheduled discussions.

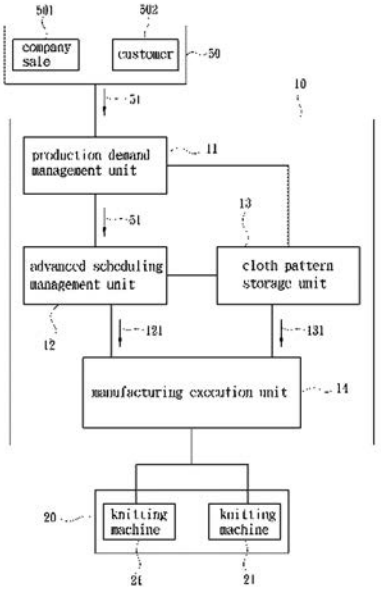
Looking ahead, organisers are confident that order will be resumed come December, when the fair returns once more to Bavaria. Before then, its Functional Fabric Fair spin-off will land in both Portland and – for the first time – Shanghai.

## Management system

Patent no: US2021109510 (A1)
Applicant: Wholeknit

This invention relates to a system for performing dynamic production and knitting machine work management.

The main purpose of the invention is to solve the problem that the cloth pattern data cannot be deleted immediately and automatically after the knitting operation is completed in a conventional knitting machine, so that the cloth pattern data may leakage from the factory.

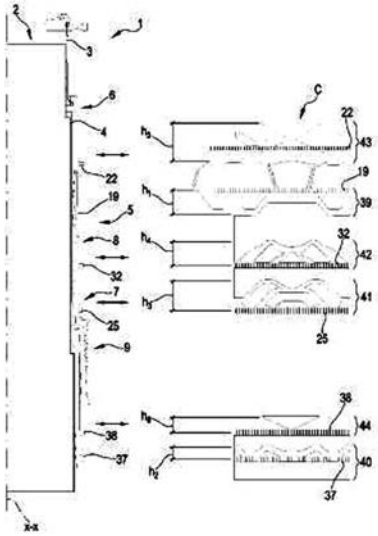



To achieve this object, the present invention provides a system for performing dynamic production and knitting machine work management, the system comprising a production demand management unit, an advanced scheduling management unit, a cloth pattern storage unit and a manufacturing execution unit. The production demand management unit receives at least production demand data. The advanced scheduling management unit is connected with the production demand management unit and generates a production scheduling data based on working conditions of a plurality of knitting machines in a factory area and the production demand data, wherein the production scheduling data comprises a plurality of sub-scheduling data corresponding to the plurality of knitting machines, and each sub-scheduling data corresponds to one of the plurality of knitting machines and comprises a production cloth pattern data and a knitting number limiting data corresponding to the production cloth pattern data. The cloth pattern storage unit stores a plurality of knitting machine work setting data which respectively corresponds to different cloth patterns, wherein a cloth pattern knitted by each of the plurality of knitting machine work setting data corresponds to the production cloth pattern data of one of the sub-scheduling data. The manufacturing execution unit is connected with the advanced scheduling management unit and the cloth pattern storage unit, and controls each of the plurality of knitting machines to work according to one of the plurality of sub-scheduling data, wherein each of the plurality of knitting machines extracts one of the plurality of knitting machine work setting data from the cloth pattern storage unit for knitting according to the production cloth pattern data included in one of the plurality of sub-scheduling data, and the production cloth pattern data is deleted forcibly if a knitting number of each of the plurality of knitting machines meets a set value defined by the knitting number limiting data.

## Moving needles

Patent no: US201816607987
Applicant: Santoni

The present invention relates to a circular knitting machine and to a method for moving the needles of a circular knitting machine. In particular, the present invention relates to the moving mechanisms for the needles. More particularly, the present invention relates to the structure of the elements actuating the needles by turning the relative rotating movement between the needle-holding element and the actuating cams into given axial movements of the needles. A circular knitting machine includes a needle-holding cylinder having plurality of longitudinal grooves arranged around central axis, and plurality of needles, each being housed in longitudinal groove. Drive chain for each needle is inserted into each groove and operatively placed between needle and actuating cams. Drive chain includes sub-needle slidingly arranged in groove and having a butt. Butt is radially movable between operating position, extracted to engage with respective first paths and cause activation of needle and stitch formation, and non-operating position, retracted so as not to engage with first paths. A selector is arranged under sub-needle, and punch is arranged between sub-needle and selector. An activating element is slidingly arranged in groove between sub-needle and selector, can be longitudinally moved with respect to punch and sub-needle, and can be operatively engaged with sub-needle to switch butt of sub-needle into and retain it in operating position.



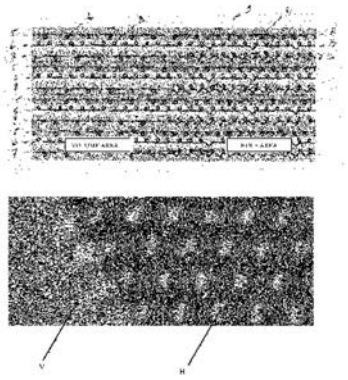
## Changeable yarn positions

Applicant(s): Pai Lung Machinery
Application number: TW20190124138

This patent application covers a weft knitting machine knitting structure with changeable yarn position. A facing yarn and a bottom yarn positioned below the facing yarn are fed during knitting, the weft knitting machine knitting structure comprises a plurality of sinkers and a plurality of needles, the plurality of needles are respectively arranged adjacent to one of the plurality of sinkers, and each of the plurality of sinkers is guided to perform a linear displacement movement. Each of the plurality of needles is provided with a hook and a latch for performing a closing action where is relative to the hook.; each of the plurality of needles is controlled in a first needle retracting track to weave a standard plating without changing positions of the facing yarn and the bottom yarn in the hook or a second needle retracting track to weave an interchanged plating by changing the positions of the facing yarn and the bottom yarn in the hook by the latch, when one of the plurality of the sinkers adjacent to the second needle retracting track does not limit the position of the facing yarn and the bottom yarn.

## Knitting Method

Applicant(s): Bekaertdeslee Innovation
Application number: CA20193110755

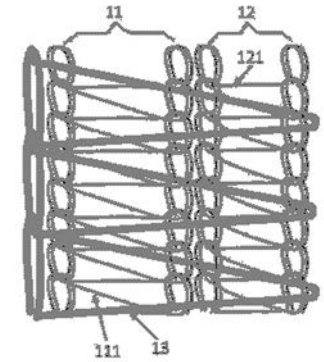


The invention relates generally to a method for combining multiple knit constructions in a single fabric using a double selection circular knitting machine. It is in particular directed of seamlessly combining in a single fabric an air circulating construction with a double-knit construction. It further provides a fabric obtained using the method of the present invention.

## Double-Layer spacer fabric

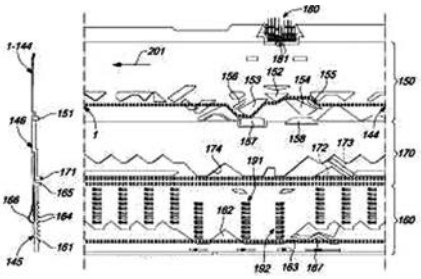
Applicant(s): Univ Jiangnan
Application number: WO2020CN101224

The patent application relates to the technical fields of warp-knitted spacer fabrics and textile equipment, and disclosed therein are a double-layer warp-knitted spacer fabric and a warp knitting machine. The double-layer warp-knitted spacer fabric described in the present invention comprises: a first double-fabric layer and a second double-fabric layer; the first double-fabric layer and the second double-fabric layer are sewn together by means of a sewing layer to form the double-layer warp-knitted spacer fabric, wherein the difference between the elastic coefficient of the first double-fabric layer and the elastic coefficient of the second double-fabric layer meets a first preset requirement. According to the present solution, the difference between the elastic coefficient of the first double-fabric layer and the elastic coefficient of the second double-fabric layer meets a first preset requirement, thus the first double-fabric layer and the second double-fabric layer have different elastic potential energy, i.e., compression performance. Therefore, two surfaces of the double-layer warp-knitted spacer fabric that is formed after the first double-fabric layer and the second double-fabric layer are sewn by means of the sewing layer have different anti-compression performance.




## Rotary motion

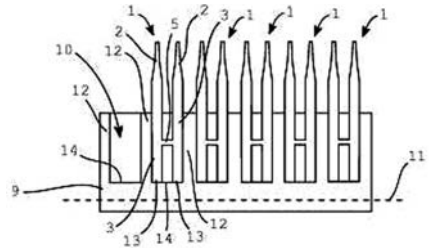
Applicant(s): Lonati
Application number: US201816965247



This patent is for method for knitting on a circular knitting machine that can be actuated with an alternating rotary motion, comprising: - dividing a group of contiguous needles into two contiguous needle subgroups (13-72; 73-132); - moving one needle subgroup to knit while rotating the needle cylinder in one direction and, subsequently, in the opposite direction to form two partial rows of knitting (301, 302; 303, 304); - moving the other needle subgroup to knit while rotating the needle cylinder in one direction of rotation and, subsequently, in the opposite direction to form two partial rows of knitting; - for a preset number of partial rows, alternating, every two partial rows, the needle subgroup moved to knit; whereby at least one needle (72, 73) of a needle subgroup, located proximate to the other needle subgroup, is moved to knit while forming at least one of the two partial rows of knitting formed by the other needle subgroup to interconnect the partial rows of knitting.

## Loop forming tool

Applicant: Karl Mayer R&D GMBH
Application number: TW20200112334

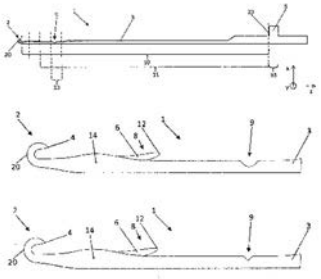


This invention relates to a loop forming tool and a warp knitting machine. The loop forming tool (1) is provided to be installed in a groove of a guide bar of the warp knitting machine, and has an elongated metallic loop forming member (2), which has a functional part (4) and a rod part (3). According to the present invention, the loop forming tool (1) has a plurality of interconnected loop forming members (2). The warp knitting machine has a guide bar and loop forming members (2) arranged in the guide bar, wherein each loop forming member (2) has a rod part (3) and a functional part (4), and wherein the guide bar has a plurality of grooves for accommodating the loop forming members. A plurality of interconnected loop forming members (2) are arranged in each groove.

## Knitting machine needle

Applicant: Groz Beckert
Application no: TW20190142710

This patent relates to a knitting machine needle (1) comprising at least the following features: a hook (2) for the formation of loops, which limits the shank (3) in the longitudinal direction (z) of the shank and which ends in a hook tip (4) and, a first drive section, which follows on from the hook (2) in the longitudinal direction (z) of the shank. The knitting machine needle (1) has a predetermined breaking section (9) for separating the hook (2) from the first drive section. The predetermined breaking section is formed by a section of the shank (3), which extends in the longitudinal direction (z).



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# Business News

## M&S to sell rival lingerie brands

**London - UK retailer Marks & Spencer is to sell lingerie from rival brands such as Sloggi and Triumph as part of a wider plan to expand its online offering.**

M&S has announced the first wave of guest brands to be marketed and sold under the banner 'Brands at M&S' which is part of the company's Never the Same Again programme, a strategy aimed at adapting its clothing business to be more relevant, more often to customers, including introducing partner brands to boost online growth.

With the partnerships varying from wholesale agreements to exclusive collaborations, the brands will initially launch only on M&S.com with possible future opportunities in UK stores. As well as the lingerie brands, online shoppers will also be able to pick up womenswear brands such as Hobbs, Joules and Phase Eight while items from White Stuff, Jack & Jones and Sosandar will also be available.

With different product styles each brand will offer a curated range for M&S.com that is complementary to M&S's own offer for customers, the company said.

Explaining the move, Neil Harrison, Director of Brands at M&S said: "As part of our Never the Same Again programme we're pleased to be introducing guest brands throughout the Spring onto m&s.com as part of our plans to turbocharge online growth. The exciting mix will offer our 22 million customers product we already know they love and introduce them to some new brands."

M&S has also expanded its international website offering under its recently established online, digital and data division, MS2. Most recently, it reported a 75 per cent increase in international e-commerce sales, underlining the recent shift in online customer spend throughout the pandemic. It is hoped that the launch of 46 new international flagship websites, which offer customers in these markets a broad range of M&S' Clothing & Home products, will give the company immediate and cost effective access to new online markets.

"Our international business has seen strong online growth since the start of the pandemic as increasing numbers of customers choose to shop through our range of flagship websites," said Paul Friston, International Director at M&S. "Under our Never the Same Again programme we're focused on turbocharging our online business both in the UK and internationally, and as part of this we see a real opportunity in extending the number of countries where we run an online channel further."

## Gildan highlights strong Q4 despite annual loss

**Montreal - Even as one of the world's largest suppliers of casualwear and socks, Gildan Activewear has demonstrated that even a company of its size is not invulnerable to the impact of the coronavirus pandemic.**

Announcing its fourth quarter and full year results, the Montreal firm has reported a US$225.3 million loss for 2020, down from a net profit of $259.8 million in 2019.

Encouragingly, with the impact of the pandemic on operations clear on the company's sales, which were $1.98 billion, down 30 per cent from $2.82 billion the previous year, the performance rebounded somewhat in the final quarter with a 4 per cent increase in sales to $690.2 million. Net earnings for the quarter were $67.4 million, compared to net earnings of $32.5 million, in the fourth quarter last year.

Outlining the results, Glenn J. Chamandy, President and CEO of Gildan said that Gildan's Back to Basics strategy had put it on a sound footing going into the pandemic and the additional actions taken during 2020 enhanced its competitive positioning. "Against the backdrop of the pandemic and the headwind of back-to-back hurricanes in Central America our team showed exceptional operational execution and delivered strong results for the fourth quarter," he said.

Despite these strong results, the quarter had its challenges. Starting early November, two back-to-back hurricanes hit Central America and Gildan suspended production temporarily at its Rio Nance complex and at other locations in Honduras and Nicaragua.

The hurricanes caused equipment, inventory and other damages, and facilities in certain locations were closed through November and part of December before it started to reopen and ramp back production. "As we managed through this disruption, we continued to service our customers during the fourth quarter from existing inventories, production from other regions, and production earlier in the quarter in Central America," Chamandy added. "While responsibility and sustainability has always been at the core of how we do business, 2020 has amplified the importance of strong environmental, social, governance (ESG) practices as an integral part of our strategy. To this end, we were pleased that for the eighth year running we were included in the Dow Jones Sustainability Index in 2020, we were recognized as a top performer on CDP's 2020 Climate Change Report and more recently, we received the Silver Class distinction in The Sustainability Yearbook 2021."

Given the ongoing impact of COVID-19, Gildan said it was not providing financial guidance for 2021.

## Culp boosted by Haiti acquisition

**High Point - US circular knitter Culp Inc has benefitted significantly from its acquisition of the remaining fifty per cent ownership interest in its Haiti-based mattress cover facility as well as the recent antidumping duties imposed on mattress imports from seven countries.**

Reporting third quarter net sales of US$79.3 million, up 15.8 per cent over the prior-year period, with mattress fabrics sales up 15.1 per cent and upholstery fabrics sales up 16.4 per cent, Culp said that the acquisition had enabled it to increase its flexibility and enhance its capacity to meet growing customer demand.

Net income from continuing operations was $2.1 million, or $0.17 per diluted share, compared with net income from continuing operations of $1.0 million, or $0.08 per diluted share, for the prior-year period.

Sales in the mattress segment were $38.6 million for the third quarter, up from $33.5 million in the third quarter of fiscal 2020.

Sandy Brown, president of the company's mattress fabrics division said the company was pleased by the strong growth in sales and operating performance for the mattress fabric segment during the third quarter, which is historically the most challenging quarter due to seasonality within the mattress industry.

"Our significant increase in sales compared to the prior-year period, was driven by an ongoing consumer focus on the at-home experience and overall comfort," Brown said. "We also benefitted from market share gains across a diversified group of new and existing customers, including further growth in our sewn mattress cover business and the success of our fabric-to-cover model. Our performance primarily reflects our solid increase in sales, offset somewhat by unfavorable China foreign exchange rate fluctuations for mattress covers and our customers' supply chain constraints resulting from non-fabric components.

"In addition, we believe the domestic mattress industry and, in turn, our business, began to realize some benefits during the quarter from the preliminary antidumping duties imposed in October 2020 by the U.S. Department of Commerce on mattress imports from seven countries. We are cautiously optimistic that this tailwind will continue during the fourth quarter of fiscal 2021 and beyond.

# New partnerships drive Wolford

**Bregenz - Fresh brand offerings and new partnerships are playing a key role for luxury legwear and innerwear brand Wolford as it looks to stabilise its business following the impact of the coronavirus pandemic.**

The latest results from the Austrian firm show that the first six months of the 2020 fiscal year were strongly marked by the impacts of the first Covid-19-related lockdown. Although stores in the EMEA region and the USA were open again as of late April/early May, customer frequency and buying behaviour did not normalize during the reporting period, the company said.

Despite this, Wolford generated sales of €48.17 million, in the first six months of the current fiscal year 2020 (May 2020 to December 2020), registering a drop in revenue of about 20 per cent compared to the prior-year figure of €60.49 million. The drop in sales of €12 million compared to the same period of the previous year was lower than planned. Despite the decline in sales revenues, at €-11.28 million the previous year's earnings before taxes (EBT) of €-12.03 million were exceeded by €1 million.

The main growth driver in the reporting period was Wolford's online business with a 54 per cent increase over the previous year. The revenue share of the company's own online business and the associated online business of its wholesale partners increased to a total of around 25 per cent.

The company's own retail and wholesale business, meanwhile, also contributed well to sales. Both the Spring Summer 2020 as well as the Fall Winter 2020/21 collections, were very well received in all channels despite the current situation. To date, €9 million in revenue has also been generated through the sale of approximately 630,000 Wolford Care Masks since the beginning of production in March 2020.

Overall, the company's restructuring program, PITBOLI (Program for Immediate Top and Bottom Line Impact), is also delivering its intended effects on revenue and efficiency. Structural costs (personnel and operational costs) were reduced by €7 million (12 per cent) a figure well above the initial targets.

Going forward, Wolford says it will continue to focus on the PITBOLI strategy as well as launching new and innovative collections. The "The W" and "W lab" collections, for example, have been successfully added to the brand architecture, and have become part of the new face of the Wolford brand.

Elsewhere, the collaboration with sports brand Adidas has significantly exceeded expectations while the company has also relaunched its Essential Collection.

The company's commitment to sustainability is also apparent with the new Aurora Monogram line, which is Cradle-to-Cradle Gold certified.

"From today's perspective, Wolford still expects to be able to reach break-even in the coming year, assuming that our expectations regarding the development of the Covid-19 pandemic remain valid," the company said. "In this context, the management board has implemented additional measures to secure liquidity on a sustainable basis."

# Germany provides financial fillip for Pakistan's textile industry

**Islamabad - Germany is to provide a €7.5 million grant to Pakistan aimed at boosting the environmental performance of the country's textile industry.**

The agreement signed between Germany's Ministry of Commerce and Deutsche Gesellschaft für Internationale Zusammenarbeit (GIZ) and Pakistan is part of a support package for two projects including the "Improvement of Labour, Social and Environmental Standards in Pakistan's Textile Industry'.

The funds will also be used to increase the competitiveness of Pakistan's textile with investment in new, environmentally friendly manufacturing technology while also fostering innovation, research and development.

There will also be a focus on improving labour conditions, compliance standards and resource efficiency. This will include campaigns aimed at improving the occupational safety and health standards particularly for small and medium enterprises to achieve international certifications in labour and environmental standards.

**All dates listed below were correct at the time of writing. As a result of the coronavirus pandemic, all dates are subject to change at short notice. Please check with individual organisers for confirmation.**

## May 2021

**17-21**
**Performance Days**
Digital Fair Week
Web: www.performancedays.com

## June 2021

**12-16**
**ITMA Asia + CITME 2020**
National Exhibition and Convention Center
Shanghai
China
Web: http://www.itmaasia.com

**22-26**
**ITM & Hightex 2021**
Istanbul
Turkey
Web: https://www.itmexhibition.com/itm2021/

**26-28**
**Exposed**
Salon International de la Lingerie
Paris
Web: https://saloninternationaldelalingerie.com/exposed/

## July 2021

**5-8**
**Texworld**
Porte De Versailles
Paris
Web: https://texworld-paris.fr.messefrankfurt.com/paris/en.html

**20-22**
**Texworld USA**
Javits Center, New York, United States
Web: https://texworld-usa.us.messefrankfurt.com/new-york/en.html

## August 2021

**23-25**
**Techtextil USA**
Raleigh, North Carolina
Web: http://www.techtextilna.com

## September 2021

**3-5**
**Interfiliere Paris**
Paris Expo
Porte de Versailles
Web: www.interfiliere.com

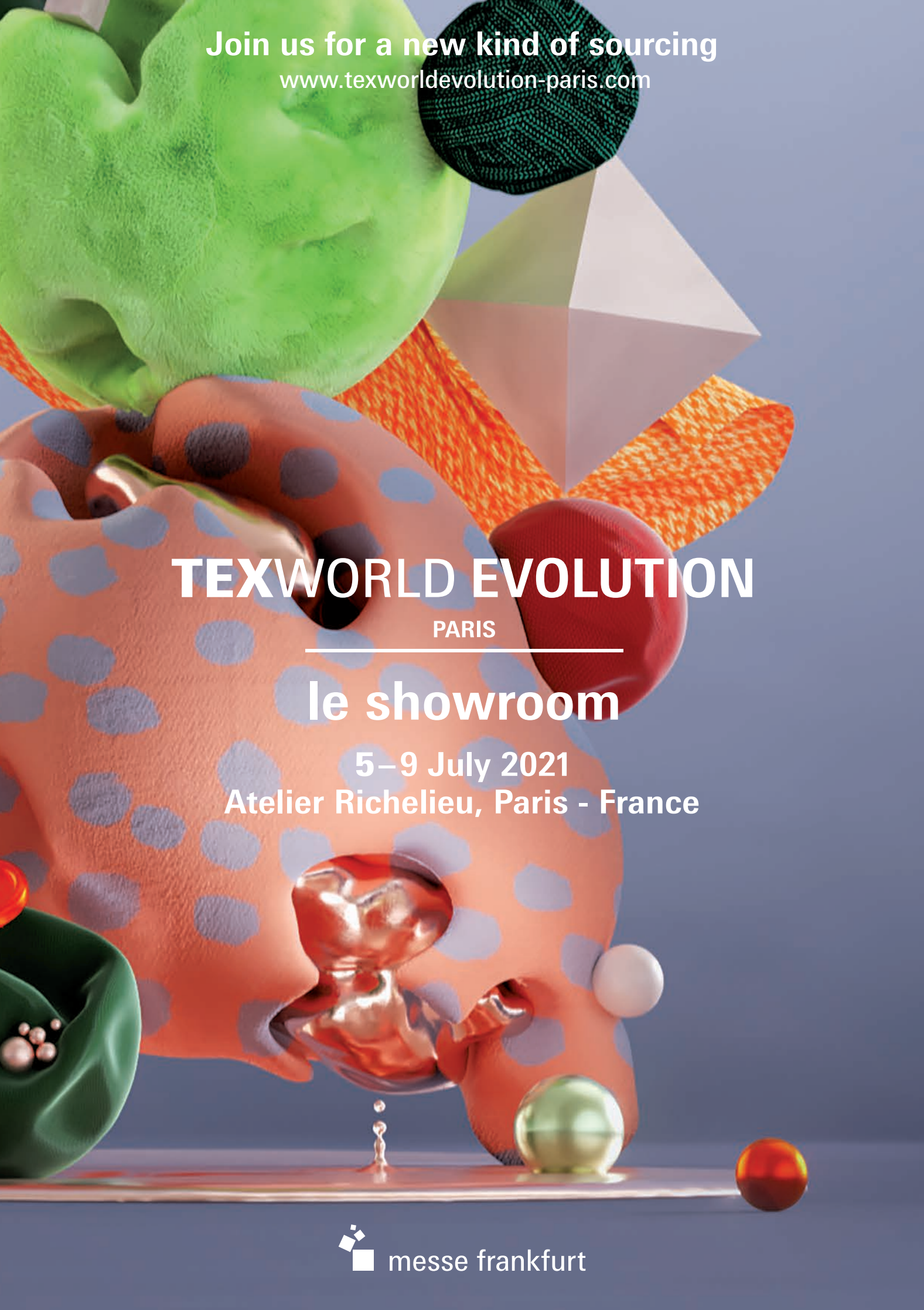
**21-23**
**Premiere Vision**
Paris Nord Villepinte, France
Web: www.premierevision.com/en/

## October 2021

**19-22**
**FIMAST**
Brixia Forum
Brescia, Italy
Web: https://www.fimast.eu/it/

**22-24**
**DyeChem and KnitProcess Exhibition**
NIFT-TEA College Compound
Tirupur, India
Email: ceo@aicnifttea.org

Although every care is taken over the compilation of this diary to ensure accuracy of the dates, these can sometimes be changed due to local circumstances. It is therefore advisable to check with the appropriate organisers before travel arrangements are made.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