

textile network

5-6/2016

English edition



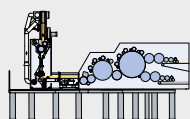
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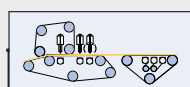
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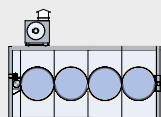
NONWOVENS



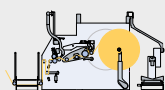
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Are you ready for 4.0?

Nothing ever stays the same. Nothing is as constant as change. If you don't move forwards, you move backwards. It's all in the mix. I'm sure you know plenty of clever sayings, that roll off the tongue so easily, but when it comes to dealing with change, it's suddenly not quite as easy as it looks. People are creatures of habit and many find it hard to turn their backs on established work routines and to embrace new ideas with open arms. Some find it nigh on impossible.

In the eyes of Joe Kaeser, CEO of Siemens, the integration of industry and IT, machinery and software is one of "those things that are really important for the world". During the BDI Business Forum in Hanover, Satya Nadella, CEO of Microsoft, predicted: "There will be no difference in future between industry and IT" (quoted in German daily newspaper Göttinger Tageblatt, 25

April 2016). The fourth industrial revolution – or Industry 4.0 for short – is on everyone's lips and naturally also a ubiquitous topic in our current print and online magazines. There is barely a company in our industry that hasn't started exploring the huge challenges this will bring for both business and society. The unstoppable process of digitalisation is steamrolling its way through all walks of life. The integration of digital technologies is in full swing in industrial production, bringing with it a whole host of challenges on the journey to the factory of the future. A recent report by Apple confirms this trend. In the last quarter, the IT giant witnessed a 20 per cent drop in the number of iPhones and iPads it sold. This is mainly because smartphones have come to be considered a piece of basic equipment. The market has stopped growing and smartphones and tablets have become part of our daily

lives. So why shouldn't they also make inroads into the world of work?

My word of the year has got to be "Networking". The name of our publication "textile network" says it all and is what we're all about! Our print magazine featuring selected and well researched contributions will be complemented from mid-May by our new website, presenting the most important daily news from our industry (see p. 19). At the end of May, we will be at mtex+ in Chemnitz, bringing you the latest information and the most impressive innovations from the world of technical textiles in our live blog. You will find us in Hall 1 booth A4.

We hope you enjoy reading this latest issue of textile network
Yours

Iris Schlöski



Iris Schlöski,
editor-in-chief



textile network

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A new website from mid-May +++ A new website from mid-May +++

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Photo: Gerber Technology


textile
network

New website goes online in mid-May!

www.textile-network.com


Photo: Messe Chemnitz

A new website from mid-May +++

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Your partner in the
textile industry!

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African fabrics from Ghana, West Africa – really?

Photo: Fotolia

GHANA

Counterfeit fabrics from China

The colourful fabrics of its traditional clothing are a source of pride in Ghana – as well as being an important branch of the country's economy. In recent years, this sector has been brought to its knees as China persistently floods the market with cheap counterfeit products.

"As soon as a new design hits the market, it takes just three weeks for the first imitations to appear," laments a trader at the big fabric market in Kumasi. All they need to get started is

just a few metres of the fabric. The counterfeits are not only destroying domestic fabric prices but also undermining production. Ghana is home to just a handful of large-scale factories that specialise in the traditional fabrics with the distinctive wax prints. They once provided work for more than 30,000 people. This number has since dwindled to just under 3,000. The losses caused by counterfeit products are being exacerbated by high costs for materials, wages and energy.

The industry has been lobbying the government for many years to take measures against Chinese counterfeit products and to safeguard the country's own industry. An agreement forged between the four biggest manufacturers - Akosombo Textiles Limited (ATL), Textstyles Ghana Limited, Printex Ghana Limited and Ghana Textiles Manufacturing Company – and the Ghanaian government-led Customs, Excise and Preventive Services (CEPS) has given rise to the creation of a special police unit, deployed to clamp down on smuggling. They are sending out a clear message by publicly and spectacularly burning the confiscated fabrics. However, Steve Dutten, Head of Marketing for ATL, believes these measures are just tilting at windmills. Speaking on German television, Dutten stated that 99 per cent of Asian-made

fabrics are smuggled into the country, adding that Ghana's proximity to the Togolese Free-Trade Zone is making it relatively easy for the smugglers. This goes some way to explaining why the restrictions imposed by the Ministry for Economic Affairs on fabric imports at three designated ports in September 2013 were far from successful.

So, what is China's take on the matter? The government is yet to release an official statement on the situation specifically affecting Ghana. However, the authorities point to the efforts by the state to put a stop to counterfeit producers, never tiring of listing their many successes. China is and is likely to remain a haven for counterfeit manufacturers. It looks like it will take nothing short of a typhoon to tilt at these windmills.

[Anja Obst]

RIANI

Refugees sew bags for Fashion Week

Fashion label Riani, based in Schorndorf, Germany, recently had 1,000 small handbags made up by sewing studio "Zauberfaden" for Berlin Fashion Week in January 2016, only to submit a follow-up order shortly after. The "Zauberfaden" sewing studio currently employs ten refugees. The little handbags were handed out to Riani's business partners during Fashion Week. They were all made from flour sack material and Riani leather, and finished with Riani and Zauberfaden labels. Martina and Jürgen Buckenmaier, the directors of Riani, stated: "This is our way of supporting the integration of refugees." Riani has donated a fur-

ther 15,000 Euro to help the refugees. To ensure the bags lived up to the discerning standards of this top fashion label, in-house seamstress Corinna Schweissgut paid regular visits to the sewing studio in Berlin to provide sewing courses.

Last summer, Riani moved to its new headquarters in Schorndorf. The clear architecture of the new premises was designed by Laer-based architect Franz Werger and has been awarded the ISW Property Award in the Commercial/Logistics category. Every other year, the prize is presented for properties in the Stuttgart region that are pioneering and



Photo: Zauberfaden

Zauberfaden, Berlin: refugees sewing bags for the Riani label

set new standards. The criteria include urban planning, architectural, technical and design aspects as well as environmental, economic and socio-cultural factors.

[www.riani.de]



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Turkey

Looking for new markets

Turkey's textile industry faces some serious challenges. Manufacturers are grappling with a dramatic slide in demand in their traditional neighbouring export markets, located in a region that is firmly in the grip of extremism and violence.

These markets are blighted not only by the civil war in a Syria reduced to rubble, but also by instability in Iraq and the international sanctions in Russia, significantly eroding the purchasing power of Russian consumers. This is prompting a growing number of Turkish textile companies to explore new avenues.

International trade fairs such as Heimtextil in Frankfurt and Texworld in New York are a reliable and widely used platform for forging new business contacts around the world. Turkish textiles exhibitors were on the lookout this spring both in Frankfurt and New York for new leads, above all, in Asia including Japan, South Korea, Taiwan,

China, but also Malaysia and other countries organised within the ASEAN economic community implemented in South-East Asia in January 2016. Talking to textile network, M. Atilla Bulut, Deputy General Coordinator (Trade Fairs) of the Turkish Home Textile Industrialists' and Businessmen's Association stated during Heimtextil in Frankfurt, that Turkish exhibitors at the last Heimtextil filled 15,000 square metres, the second largest exhibition area after Germany, adding: "Our geographical proximity to Europe gives us a great advantage over China. We know and understand the Europeans' quality requirements and are accustomed to their way of doing business. Of course, there are problems on the borders to Syria, Iraq and Russia but Turkey is built on a stable political foundation." Turkish suppliers see Malaysia as an attractive market within the ASEAN economic community. Some are preparing



At this year's Heimtextil trade fair in Frankfurt the number of Turkish exhibitors climbed from 159 (2015) to 211 in 2016. Pictured here Flokser Tekstil San. ve Tic. A.Ş.

to visit Malaysia and other ASEAN member states with a view to increasing their exports.

In 2015, Turkey's total textile exports amounted to around 14bn US\$ (12.3bn Euro), with home textiles accounting for roughly 3bn US\$ (2.6bn Euro). In 2014, Turkey's home textiles exports still reached the 3.3bn US\$ threshold. The slide in 2015 is being blamed on the crisis in Russia. According to Bulut, the association's members are also keen to gain a foothold in Japan and Canada. "Turkey is organising its own home textiles fair EVTEKS in Istanbul from 17 to 21 May. We're attempting to encourage buyers from Asia and other countries to come to the event. We've already launched an advertising campaign to attract buyers from all over the world," Bulut added. Several Turkish exhibitors are already forging contacts with Asian importers. The Istanbul-based company Luks Kadife T/C VE San AS, which produces curtains and

apparel fabrics, is already exporting to Malaysia, and is planning to expand its export operations to other Asian countries in a move to offset the uncertainties it faces in markets closer to home. The main markets served by Luks Kadife include the US, Europe, the Middle East and north Africa. "Although our business with Malaysia is on a much smaller scale than our main markets, we think Malaysia is a stable country. China is currently experiencing uncertainty in the face of slowing economic growth. We believe that Malaysia together with Singapore and Indonesia will continue to experience growth. We sell approximately 30 percent of our output at home whilst exporting around 70 percent abroad," Feramin Celiktaş, Managing Director of Luks Kadife, explained when talking to textile network at Heimtextil. Osman Canik, Chairman of the Uludağ Turkish Exporters' Association and Vice President of Bursa-

Malaysia: population of 28 million, formerly a British colony, inhabitants mostly of Muslim faith



Photo: Fotolia

Kuala Lumpur, Malaysia: Malaysia comprises two land masses separated by the South China Sea, namely the Malay Peninsula in the west and parts of the island of Borneo in the east. The city state of Singapore is located on an island to the south. The majority of the roughly 28.3 million inhabitants live in the western part of Malaysia. The capital Kuala Lumpur has a population of around 1.5 million and is visited every year by up to eleven million tourists (Source: Wikipedia)



The new Inspire product range from schoeller-works

Photo: Schöller

SCHOELLER WORKS

New, fully-sustainable workwear

The new Inspire product range from schoeller-works stands for fabrics that are 100 percent recyclable. Together with the Netherlands-based company Dutch Spirit, Schoeller develops a completely sustainable concept for the workwear segment.

Dutch Spirit is a company dedicated to sustainable clothing, which it also produces. The Inspire project, a collaboration between the two like-minded companies, showcases new, high-quality textiles for workwear that are manufactured on the most modern production equipment

with textile fibres made from used garments. At the end of their service life, these fabrics can be fully recycled again.

[www.schoeller-works.com]

Read more about the sustainability online on www.textile-network.com

AVE

Sustainable expansion of Myanmar's textile industry

based Elvin Tekstil San Vetic A.S., pointed out that a total of 1.5 billion potential consumers are located within a stone's throw of Turkey. He is pinning his hopes on a precipitated end to the civil war in Syria followed by a period of rapid growth fuelled by reconstruction. New hotels, residential areas and other infrastructure projects would generate new demand for home and household textiles. Canik hopes that the war in Syria will soon be brought to an end.

[Manik Mehta]

The German retail trade is supporting Myanmar as it tentatively embraces the sustainable expansion of its textile industry. The Foreign Trade Association of German Retailers (AVE) has forged a cooperation agreement with the Myanmar Garment Manufacturers Association (MGMA). The project's main focus is on sustainability and fair working conditions.

"Myanmar has the unique opportunity to set out on the right path by making its textile industry sustainable from the outset," states AVE's General Director Jens Nagel, continuing, "We're committed to lending our support both to the country and our partner association." The cooperation agreement has initially been put in place for three years. Sponsored by the German Federal Ministry for Economic Cooperation and Development (BMZ), the project's pri-

mary objective is to create structures that pave the way for the sustainable production of textiles in conjunction with fair working conditions. This will involve training courses and seminars designed to encourage local textiles producers to improve their social standards, whilst scaling up output and enhancing product quality. This will go hand in hand with a push to increase the MGMA's own capacities. The AVE will provide the necessary expertise and personnel: Not only will it dispatch to Myanmar a permanent member of AVE's staff but it will also deploy experts that provide training courses and seminars to association officials and managers in the textile industry – also within the context of the Business Social Compliance Initiative (BSCI). "The project is an excellent example of how business and development work can join forces to improve social standards in the supply



Photo: AVE

AVE's General Director Jens Nagel

chain," states Nagel. U Myint Soe, MGMA's President: "Myanmar not only has ambitious plans to expand its textile industry but it is also keen to make that growth sustainable." The textile industry in Myanmar has formulated a ten-year strategy with clearly defined goals. By 2024, the country hopes to have increased its textiles turnover to 10bn US\$. The country's textile industry currently exports roughly 1.8bn US\$ worth of goods. In addition, the industry wants products "Made in Myanmar" to be associated with good working conditions and sustainable production.

[www.ave-international.de]



Osman Canik (middle), Vice President of Elvin Tekstil San Vetic A.S., a leading Turkish textile manufacturer is also Chairman of the Uludag Exporters' Association, and is pictured here with some of its members

Photo: Fotolia

MÜNCHNER STOFF FRÜHLING

Black & White meets colour

Attracting around 1,700 trade buyers from the fields of interior decoration, home furnishings, interior design and architecture, Münchner Stoff Frühling posted pleasing visitor levels, predominantly from Germany but also from Austria and Switzerland. Commenting on the fair, Eberhard Müller, board executive of the fair and CEO of Dedar Deutschland reported: "The mood among customers was upbeat and the showrooms recorded plenty of footfall." Klaus Berger, Managing Director of Lilièvre Deutschland arrived at a similarly positive conclusion: "Excellent. It was a great fair with plenty of interesting discussions. The retailers had a positive outlook and are ready to

invest again. For us, this was the best show in recent years." This year's "Black & White" theme was reflected in a whole host of creative fabric presentations. This was complemented with blues in every shade imaginable, with colour gradients from turquoise to azure and indigo attracting widespread attention alongside loud red and subtle pastels. "In the high-end furnishings sector, the resplendent eras of Art Déco and the 1920s have for some time now been an important source of inspiration for exquisite fabric collections and furniture," states Klaus Winkler, Winkler Medien Verlag and, likewise, board executive of Münchner Stoff Frühling. "In future, we'll be



Photo: Elitis



Photo: Zimmer+Rohde



Photo: Hahn&Schoenberg

26 international textile manufacturers and fabric editors unveiled their new collections at the 19th Münchner Stoff Frühling from 11 to 14 March 2016

furnishing our homes more cosily than ever, which will naturally involve more textiles." Given that we come into contact with cold surfaces, such as smartphones and tablets, on a daily basis, we intuitively need soft tactile experiences

to compensate. "We're confidently looking forward to our 20th anniversary event next year," concluded Eberhard Müller. The dates for Münchner Stoff Frühling 2017 will be released in May 2016.

[www.msf-muenchen.de]

TEXCARE 2016

'Industry 4.0' for textile services

Digitalisation is set to be the driver of the future in the textile-care industry. The precondition for 'Industry 4.0' is a comprehensively networked data communication system covering all the players involved in the production. As the world's leading trade fair in its field,

Texcare International, from 11 to 15 June 2016, is the guide to the latest developments for this key trend towards 'Industry 4.0'. Companies involved in plant construction, suppliers of identification, monitoring and control systems for goods, research institutions and IT specialists will

be showcasing their solutions for the 'smart' automated laundries and dry-cleaning plants of the future. Textile services these days have reached a considerable level of individualisation and personalisation. "We are just at the beginning of what we can do with the technology that is available to us at the moment," says Friedrich Eberhard, President of the German Textile Cleaning Association (Deutscher Textilreinigungsverband DTV), in Bonn. "If we manage to link all the machines and systems completely and organise the data properly, then, in future, we shall be pretty well able to meet the needs and requirements of our customers in real time, as we are processing their laun-

dry". The high density of information can contribute massively to helping people meet the requirements of the job. "If the laundry already comes with the information we need, then we can dispense with a huge number of the repetitive administrative tasks, which, in the past, have been necessary to pass the customer's wishes and requirements to the places in the textile service companies where the various tasks are performed. This applies to the administration, the production processes and the logistics." And the laundry services, too, will benefit from this, and gain a new and closer relationship with their customers.

[www.texcare.com]



Photo: Messe Frankfurt Exhibition GmbH - Petra Welzel

Top subjects at Texcare International 2016: 'Industry 4.0' for textile services

ITA Aachen

Textile reinforced concrete (TRC): The building sector's magic bullet?

Replacing energy intensive materials like steel and a lower amount of cement in concrete elements leads toward more environmentally responsible products. Additionally, the novel material will increase the building output to keep up with supply with the demand in specific high development regions. Last but not least, there is more probability of quality issues arising in insitu construction as compared to precast construction. TRC is a standardized composite material, which consist of a cement based matrix

with an open textile grid to absorb tensile load. Many projects with TRC that were mostly used for the structural-facings sector, have already been realized in countries like Switzerland and Germany. However, most of these projects are based on textiles AR-glass fibre or carbon fibre. AR-glass is usually coated with an epoxy resin or styrol-butadiene rubber (SBR) surface coating. Thereby, the durability of TRC components is prolonged, since the coating enhances the mechanical properties, as well as it

shields the fibre from the alkaline concrete. Basalt fibre's potential as alternative to AR-glass or carbon in TRC solutions is immense, but only, if the chemical resistance of the basalt fibre withstands this highly alkali environment. Therefore, RWTH started a new project to improve the alkali resistance of basalt fibres and a consequential longer lasting durability of basalt based TRC-structures in corporation with Incotology GmbH and Informbeton GmbH.

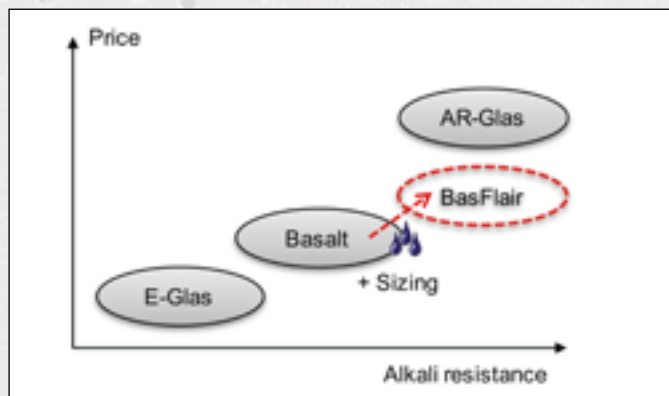
Basflair

The characteristics of basalt fibres can be influenced by the chemical composition and the manufacturing process. The Basflair project (2015-2017) aims to increase the existing alkali resistance of basalt fibres using surface treatments (sizing). Sizing is the last step in manufacturing process to prepare the fibres for the further processing. In addition, the specific size composition has a massive effect on fibre-matrix composite behaviour and the alkali resistance of basalt fibres, in this case.

Within this project Incotology is developing various sizes for basalt fibres to ensure alkali resistance and therefore the durability of the fibres. ITA is going to develop warp knitted, biaxial textiles for the final product. The textile composite is investigated by the Institute of Building Materials (IBAC) at RWTH Aachen University. Informbeton GmbH will evolve the associated pre-

cast concrete components process to fabricate complex geometries with textile reinforce-

advertisement



Conceptual diagram about the price to resistance behaviour of E-glass, basalt, AR-glass and carbon

Density (g/cm ³)	1.95-2.75
maximum application temperature (°C)	982
permanent operating temperature (°C)	820
Minimum operating temperature (°C)	-260
Melting Point (°C)	1450
Young's modulus (MPa)	up to 110
Tensile strength (MPa)	1200-4840
Flexural strength (MPa)	800
Elongation at break (%)	3.15
Thermal conductivity (W/m K)	0.031-0.038
Sound absorption coefficient	0.9-0.99

General properties of basalt fibres to outline the performance of this type of fibre General properties of basalt fibres (Sarvanan, D, 2006, Spinning the rocks – basalt fibres, Journal of institution of engineers 86, pp. 39-45)

ment. In this context, Informbeton will prototype a summer kitchen and an external fireplace. Along these stages of development, the quality control and the economic evaluation of the developed solutions will be analysed in order to design durable yet economical solutions. The examination of the sizing development for basalt fibres is in this case carried out on a micro scale, to protect the basalt against the alkaline environment. This extensive research on various possible sizing compositions are performed to investigate the effects of the alkaline environment. A test bench study with different sizes will be conducted, in order to obtain a defined statement about the evaluation of the loss of tensile strength. For this purpose, the tensile strength is determined before and after immersion in an alkaline solution with a pH-value >13. The ►

► meso scaled development focuses on refractory concrete, and the biaxial, basalt warp knitted fabric. Extensive researches have been conducted to investigate the benefits of warp-knit fabrics over woven or other textile types for the reinforcement of concrete. Two different bond combinations are being developed, taking into account the stiffness of the textile structure in relation to its drapability. The developed fabrics are compared with already known AR-glass fabrics in terms of burden and draping. An important parameter of

the performance of TVB-components is the bond between the fibre and the concrete. The bon-

ding strength is determined by bending tests and tensile tests on manufactured TRC-compo-

nent. Subsequently, the lifespan and long-term loading of the component by using accelerated aging tests is verified. The macro development focuses on a component development. A so-called summer kitchen is a possible high-temperature application that is constantly exposed to the weather conditions of the environment.

[www.ita.rwth-aachen.de]

[Davide Pico, Udiyasinh Gohil, Christoph Greb, Gunnar Seide, Thomas Gries, Institut für Textiltechnik (ITA) der RWTH Aachen University]

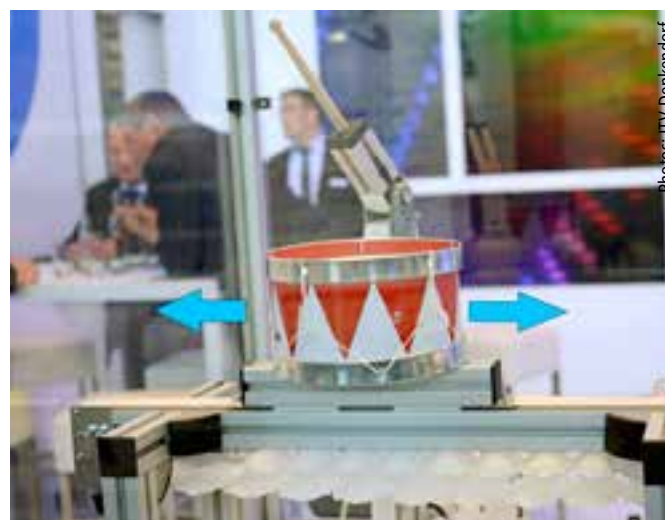


Schematic project plan – Basflair

ITV DENKENDORF

Pneumatic textile actuators

Energy saving has become key in our lives, and for creating a future responsibly modern lightweight design is indispensable. The Institute of Textile Technology and Process Engineering ITV is investigating a promising new approach: pneumatic textile actuators. These drive elements are light and yet develop significant strength while ensuring movement. The actuators are manufactured in one piece according to Jacquard web technology, whereby each yarn is individually embedded in the textile via computer control. In this way single and double-layered fabric constructions with integrated chamber structures are created. These basic elements are airtight laminated and cut out with a laser. By filling these chamber structures with air, it is possible to generate strength and movement and even motion sequences depending on the chamber internal pressure. New studies show that compressed air usage in the industry is responsible for up to 20 per-



cent of operational energy costs. Many companies try to reduce these by using economical, computer-optimized and well-maintained compressed air systems. The technology of pneumatic textiles is pursuing a revolutionary approach here. Unlike traditional pneumatic technology, the textiles operate in the so-called low-pressure area and often require only an energy-efficient 1 bar overpressure. Less than half of the pressure that is usually required for adjusting

movements is sufficient for dynamic systems with pneumatic textile actuators. Yet these actuators create a lot of strength. In comparison with conventional pneumatic drives, comparable force can be generated with more than 30 times lower weight. This opens up a host of new possibilities. Due to the geometric variability, almost all actuator sizes can be realized. As the actuators are very light, they can be used in many applications. It is possible to generate



Significant strength can be generated in this way. By inflating a mere 20x20cm chamber with a pressure of less than 0.5 bar, a massive steel rod can be bent easily

By intermittently inflating the textile chamber structures below (circle), the drum is moved towards the right and left through a simple redirection (arrows)

meter-long elements in architecture for roof and facade structures as well as additional elements on industrial robots, offering additional functionalities even when away from the pivot. In addition, pneumatic textiles can take on additional functions through sensory structures integrated directly during the weaving process.

[www.itv-denckendorf.de]

Read more research reports Online!

Buhler Quality Yarns

Market leader takes new path

Buhler Quality Yarns is a key supplier to the knit trade in the Western Hemisphere. A division of Swiss-based Buhler, the operation in Jefferson, Ga., opened in 1996. Buhler has about 32,000 spindles and produces about 3,700 tons of yarn annually.

The Georgia-based plant specialises in yarns made from Supima extra-long staple cotton, MicroModal Edelweiss and Micro Tencel, along with various blends. The company is considered to be the leading producer of fine-count yarns in the US.

David Sasso, vice president of sales at Buhler Quality Yarns, reports that business has been good in 2015 and he says he's optimistic the year will finish that way and continue into the next. However, customers' habits have changed in recent years. In the past, Buhler could count on long programme orders. Now, it is more of a short order situation. While business is steady, there is less certainty these days. Through the years, Buhler Quality Yarns has evolved from being a traditional sales yarn spinner to becoming involved in supply chain management, creating retail relationships and developing an understanding of the supply chain and how the spinner can participate. "We have an understanding of all the costs involved between the fibre and garment stage and that's not typically what a spinner does," Sasso says. About 90 percent of Buhler's yarn production goes into the knit trade. Orders

from Central America are strong, likewise with Peru. Sasso describes the US domestic market as steady." Buhler is relying on export markets for long-term programmes.

The largest end use for Buhler yarn is knitted apparel. Some also goes into uniforms and military garments. Sasso notes that while apparel more often represents short-term programmes, there is an opportunity in the high-end sheeting market.

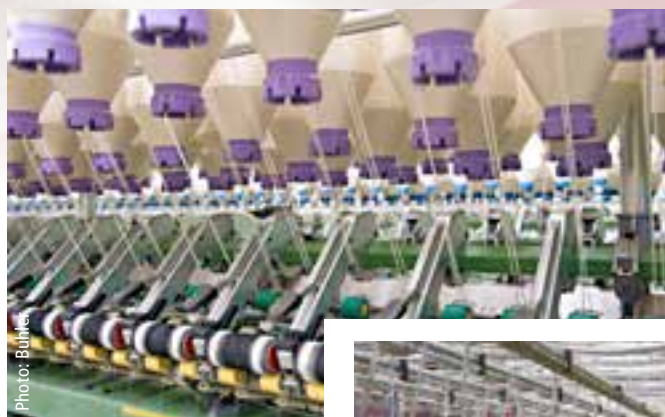
Buhler also produces yarn for woven applications, such as the military and some for towel manufacturing. "Our parent company produces air-jet and ring-spun yarns," Sasso says.

"We use them to see how that market goes and to see what the demand for those yarns is. We keep a close eye on those technologies and if we can implement them here, we will."

Yarn spinners face a myriad of challenges, but weather is not usually at the top of the list. However, the ongoing drought in California continues to affect pima cotton. Buhler sources all of its Pima from California.

"We're concerned about raw material prices," Sasso says, "So, you have to have alternatives because it affects pricing."

Sasso has been with Buhler's US operation since 2001. He says the biggest change in the industry during those years has been the explosion of online retailing and buying. He notes that the more choices consumers have, the more unpredictability there is in the market. Developing close relationships along the supply chain can of-



Glimpse at production



ten bring in unexpected business. "The traditional way of thinking about selling yarns is not very effective any more," Sasso says. "Our knit customers or our garment customers, all of these guys can sell and pull your yarns through." Most of Buhler's orders come from long-standing customers. The company is well known in the industry, among brands and retailers: "If I visit a brand in Los Angeles, I want to make sure what we are the preferred yarn supplier for their apparel. Everyone knows you need high-end yarns and Buhler is the supplier of choice."

Much of the recent investment in the US textile industry has involved yarn spinning in the South. Sasso says the relatively low energy costs in the region have encouraged expansion. Lower energy costs help offset

higher labour costs. Buhler has not had a major expansion, but has replaced three of its older spinning machines with new models, which has increased its capacity. While some areas of the South have seen a dissipation of qualified textile employees over the past 15 years as the overall industry has shrunk, Sasso says Buhler has been successful in maintaining a qualified work force. Employment at Buhler has remained fairly steady in recent years, averaging about 150, including management. Sasso observes that today's textile workers have to be a combination of electrician and mechanical engineer. "While spinning hasn't changed in many years, the environment they work in is so much better than it was."

[www.buhleryarn.com]

[John McCurry]

Truetzschler Nonwovens

Nonwovens are in our DNA

Nonwovens have great significance for our daily life. They are indispensable items in the household, at work and during leisure time. Tea bags, diapers, jackets, cars, surgery equipment and waste incineration plants are no longer conceivable without them.

It is a fascinating world and Truetzschler Nonwovens & Man-Made Fibers is part of it. The company is a well-known textile machinery supplier with a broad range of products. The Man-Made Fibers branch comprises spinning plants for carpet yarns (BCF – Bulk Continuous Filament) and industrial yarns. Whereas machinery and complete production lines for staple fiber based nonwovens constitute the company's Nonwovens branch. The diagram (right) gives an overview of the nonwoven technologies offered.

The roots of Truetzschler Nonwovens

Truetzschler Nonwovens combines the expertise and the experience of the three previously independent companies Fleissner, Erko and Bas-



Nonwoven production processes

Fleissner AquaJet



tian. Truetzschler, a family-owned group of textile machinery suppliers based in Moenchengladbach, gradually took over the respective technologies since 2005.

Fleissner: In 1848 Johann Christian Fleissner started his own business by leasing a forge in the Bohemian city of Asch. He soon began to supply machinery to the flourishing textile industry. 1929 the patent of the through-air drum was granted to Hans Fleissner, a technology still used today for drying fibers, nonwovens and textiles. After World War II the company relocated to Egelsbach near Frankfurt am Main. The company delivered the first nonwoven production line in 1973. The most well-known product today is the Fleissner AquaJet, a leading solution for spunlacing or hydroentangling. Moreover, Egelsbach

supplies machinery for thermal and chemical bonding, drying and finishing.

Bastian: In 2012 Truetzschler Nonwovens acquired the assets of Bastian. Founded in 1973, the company soon became a first address for winding technologies for both the nonwovens and film industries. In 2007 the 1,000th winder was delivered. Today, Bastian winders are designed in Bielefeld and manufactured in Egelsbach.

Erko: Erko GmbH started in 1993 in Duellen as a manufacturer of switchgears but soon expanded into the nonwovens machinery field. Today the site adds machinery for fiber opening and blending, web forming and needling to Truetzschler Nonwovens' product portfolio.



Truetzschler Nonwovens today

The broad range of technologies allows Truetzschler Nonwovens for supplying complete production lines from fiber preparation to winding. For key processes such as web forming and web bonding alternative technologies are offered to cope with the various fiber raw materials and to establish the desired nonwoven properties.

Active process development

Mastering the physical and chemical processes taking place during nonwovens production had already played a major role for Fleissner. Today the various process technologies are significant competencies of both Duermen and Egelsbach.

The company maintains two fully-equipped technical centers. On one hand customers can make use of them for testing new product ideas. On the other hand they provide Truetzschler Nonwovens' engineers the ideal place to develop new machinery and processes. One example is the new spunlacing process for so called flushable wipes made from wet-laid webs - the first outcome in 2014 of the ongoing cooperation with Voith Paper.

Turnkey production lines

A few years ago Truetzschler Nonwovens took the first step from being a machine to a complete line supplier. With this decision a new focus arose: besides the improvement of single components R&D be-

comes responsible for overall line productivity and resource consumption as well as for final product quality.

Ordering a complete line out of one hand significantly reduces the process risk for the customer because all components are tailor-made and aligned with each other.

Innovative machinery

Innovation fuels the nonwovens industry and it fuels Truetzschler Nonwovens. Last year's ITMA in Milan has been the hour of birth for a real novelty which brings an entirely new kind of nonwovens into the world. Truetzschler Nonwovens in-

A random card for cotton webs



Detailed view of the structuring shell and the resulting thermobonded nonwoven

duced an exchangeable structuring shell for the thermobonded drum. Until this time thermobonded nonwovens, i.e. webs which are bonded by hot air flowing through them, always were bulky and soft with a plain surface. No machine and no process had been invented so far to thermobond and structure nonwovens similar to structured spunlaced material in one process step. Now the patent-pending structuring shell makes these products possible.

A thermobond drum oven equipped with such a shell produces bulky materials with bold and resilient 3D patterns. Without the shell, the same line manufactures plain qualities. Since the shell is exchangeable, the producer gains flexibility and can easier adapt to market requirements. Moreover, existing thermobonding lines can be retrofitted. The door to even more functional nonwoven fabrics used for hygiene, filtration or insulation applications is thus pushed wide open.

[www.truetzschler.de]

[Jutta Stehr]

Starting into the day with nonwovens

The alarm clock rings and you'll get out of bed 10 minutes later. Say good-bye to the moisture-regulating, thermobonded nonwoven mattress cover.

After the shower you'll open your wardrobe to choose the grey jacket – gauzy spunbonded nonwovens ensure the perfect fit of collar and lapel.

At the breakfast table you'll put the tea bag into the mug. The bag is a chemically bonded nonwoven made of wet-laid, short-cut Abaca fibers of 1 to 2 mm length.

For washing up the wooden fruit bowl a spunlaced, perforated dishcloth printed with green zig zag lines waits beside the sink.

Your handbag of artificial leather waits at the coat rack. It's base material are extensively needled or spunlaced polyester fibers. The even surface is ideally suited for the subsequent coating process.

When driving to work with your car, you take along a dozen or more different nonwovens. Air filters, pipe sleeves, the headliner and parts of the interior trim are made of needled or thermally bonded polyester or polypropylene fibers.

On a slope area beside the highway construction workers lay out a white fabric. This nonwoven geotextile ensures that the top layer of plant soil does not intermix with the coarse gravel bottom layer.

Finally you'll arrive at the office. The carpet under your desk most probably is a robust, mechanically needled nonwoven fabric of spun-dyed polypropylene fibers.



Find further highlights of the show on our website! Please note – our new website goes online in mid-May! See page 19!

www.textile-network.com

mtex+, Chemnitz

The plus says it all!

The 6th mtex+ – the International Exhibition for Technical Textiles, which opens its doors from 31 May to 2 June 2016 in Chemnitz/Germany, sees itself as a “pioneer event with value added for engineers, designers and managers from all potential user industries”. In its role as media partner and initiator of the 1st mtex+ - young talent prize “Metarmorphosis”, textile network is on board and will be reporting live from the fair in our live blog at www.textile-network.de / www.textile-network.com!

Mtex+, the 6th International Exhibition for Technical Textiles, which is taking place in Chemnitz in Germany from 31 May to 2 June 2016, is designed to be a trade fair for innovators and provide value added for engineers, designers and managers from all the potential user sectors. “In line with the latest trends, we’ve

significantly expanded the range of subjects covered at mtex+ beyond mobile textiles,” says Exhibition Manager Michael Kynast. “It’s becoming increasingly important for product and process developers in industry to familiarise themselves with the varied fields of application for high-tech textiles. We offer the ide-

At www.textile-network.de and www.mtex-chemnitz.de, you will find an informative online exhibitor catalogue which is updated every day! Exhibitors use this compact platform to introduce themselves to potential trade visitors, simply by answering the following questions: Contact? Highlight? Our USP? Who should make a point of visiting our stand?

al platform for this with our exhibition where everything is on the spot and intense personal contacts are possible. We’re expecting about 100 exhibitors from Germany and the Czech Republic and 3,000 trade visitors from Germany and abroad. The Czech Republic will be the mtex+ partner country for the first time. Our neighbours have a highly developed textile industry and first-class research institutes, but they don’t have their own exhibition in this field. That’s why they’re very happy to use our centre, which is located at the heart of the unique Eastern German cluster, covering textile production, textile machine engineering and textile research. It was no accident that the Swiss newspaper „Neue Zürcher Zeitung“ called Chemnitz „Germany’s textile capital“ some time ago...” The 6th edition of mtex+ is taking place alongside the 4th LiMA Lightweight Design exhibition.



Photo: Messe Chemnitz

Michael Kynast, head of mtex+: “Come to Chemnitz. You’ll be greeted by a high density of innovations in technical textiles from Chemnitz, the surrounding region and over the borders”

Composites and textile-based lightweight design form interlinking themes. A special exhibition on medical and health textiles and the 15th Chemnitz Textile Technology Conference on the subject of “Textile technology as the key technology for the future”, which will be attended by approx. 300 people from Germany and abroad, form the supporting programme for mtex+. The mtex+ innovation prize will be presented for the second time, with an award going to young talent for the first time.

[www.mtex-chemnitz.de]



Photo: STFI / W. Schmidt

For more than 15 years, the Saxon Textile Research Institute (STFI), Chemnitz, has been cooperating successfully with Czech partners. Recently, working on a European project together with Inotex, Dvur Kralove, Clutex, the Czech Cluster for Technical Textiles, Liberec, and with the Belgian partner Centexbel, STFI has developed a technology that enables textiles to be coated with polyurethane using UV-LED curing systems. This technology, which is known from other industries, was applied in a textile context for the first time. The UV-LED emitter lamp used provides numerous advantages (long durability, no ozone emission and no thermal radiation) compared to medium-pressure mercury lamps.



Photo: BST

BEBA MISCHTECHNIK

Foam mixers like cocktails

Beba foam mixers are used in a wide variety of applications. In the food industry, these mixers can be used to produce creams, whipped cream, doughs and confectionery of any kind. In the textile industry, the mixers are needed to foam chemicals that are applied to textiles to lend them new properties. This embraces everything from Scotchgard or Teflon coating to the automotive sector, where predominantly flame retardant substances are applied to interior fabrics. Beba foam mixers are found in many other applications as well. Curtain fabrics endowed with sun protection properties, for example, also use the foam mixers from beba. Perhaps the best way to explain how they work is to compare them to the principle of a cocktail shaker: Product pumps transport the medium to the mixing tubes. Flowmeters for medium and gas ensure that the right amounts are in the mixing head at all times. Static mixing elements are located in the mixing tubes which are arranged around an oscillating shaft. Foam is produced by jiggling the medium and the gas by means of oscillation. Since the system is under pressure, the finished foam can be conveyed for further processing to the downstream production equipment and applied to the substrate. At mtex+, it will be possible to view the BM800 model with oscillating mixing head, which is the standard unit for the most common applications.

[www.beba-mischtechnik.de]

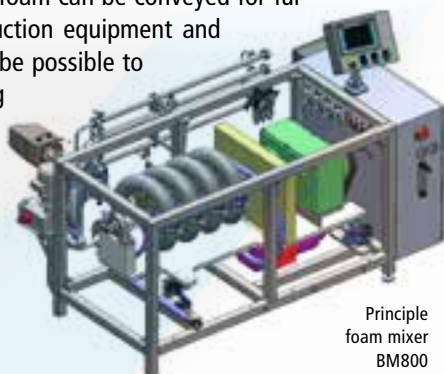


Photo: Beba

Principle
foam mixer
BM800

BASALT FIBRE NETWORK

Shines like gold and ultra-safe

Decorative structural elements, that are made from basalt textiles incorporated in safety glass, create unconventional shades from gold to bronze which vary depending on the incidence of light. "These non-flammable structural elements can withstand large fluctuations in temperature. They are colourfast, have high mechanical strength, do not absorb moisture and do not corrode," explains network manager Torsten Bäß from the Forum Technologie & Wirtschaft e. V. (FuW) in Hohenstein-Ernstthal (Saxony): "The parts are suitable for bridge railings, building façades, bus shelters and other street furniture; they can also be used in creative interior design in properties of all kinds. We're currently working on burglar-proof structural elements within this category."

Basalt fibres are gained from a 1,450°C melt. They can withstand temperatures of up to 800°C, they are ultra-strong, flexible, non-toxic and resistant to chemicals and UV rays. The natural mineral fibres serve, among others, as a base material for yarns, rovings, nonwovens, textiles, knitted fabrics and composites.

[www.bafanet.com]



Glistening like gold, the innovative and decorative structural elements from basalt textiles

Photo: Wolfgang Schmidt

BST PROCONTROL / ELMATEX

Efficiency and process optimisation systems

At the stand shared by BST Procontrol and Elmatex, trade buyers will have the opportunity to find out more about the various processes involved in the continuous measurement of technical textiles as well as non-woven materials. Elmatex generally specialises in the distribution of machinery, plant and accessories for the textile and non-woven industry. Rather than exhibiting products, the companies will focus on entering into an active dialogue with the trade visitors to shed light on the special features of quality management in the field of textiles and non-woven products. For example, these products consist of precisely defined characteristics that offer virtually no room for material defects. This is where the innovative sensor solutions come into play: They ensure fast, reliable and absolutely exact measurements of factors such as thickness and humidity. A precise basis-weight measurement is also possible. The measurement systems automatically intervene in the control cycle of the production process and make any necessary adjustments by means of real-time monitoring. This not only paves the way for precise measurements but it also ensures that the highest requirements are met in terms of efficiency and process optimisation.

[www.bst-procontrol.de]

Advertisement



FUTURETEX

Industry 4.0 in the textile industry



Futuretex is poised to present the four basic projects exploring fundamental aspects of the fourth industrial revolution in the textile industry. "Smart Factory", for example, is championing the development of processes and structures for the creation of smart factories in the textile industry and applications associated with the Industry 4.0 drive. The "Mass Customisation" project focuses on strategies for sustainable supply chain networks. "Open Innovation" is all about developing and initiating Open Innovation Networks with a view to unlocking innovative potential in the industry. In the "World of Work 4.0", the consortium is devising a concept that safeguards and promotes the full potential of the workforce through job engineering and honing expertise, whilst taking into account the complex requirements of Industry 4.0. Futuretex is one of ten consortia receiving funding from the German Federal Ministry of Education and Research within the framework of the "Twenty20 – Partnership for Innovation" programme. On the final day of the fair, 2 June 2016, Futuretex is staging an information event at the exhibition centre to shed light on the four basic projects and other ventures.

[www.stfi.de]

XETMA VOLLENWEIDER

„The better partner“

The German-Swiss company inspires its customers all over the world with versatile finishing solutions that result from constant optimization and continuous development of new and highly traditional technologies. The innovative technology portfolio includes the following product lines: Soft Touch (Emerizing & Brushing, Plush Touch (Raising), Even Touch (Shearing), Level Touch (Carpet Shearing & Finishing), Clean Touch (Fabric Cleaning). With a wide range of applications in textile finishing for the technical textile industry, Xetma Vollenweider has concentrated on achieving unique surface effects true to the slogan "Feel the Touch". The high potential for innovation

of technical textiles allows new fields of application. That is why Xetma Vollenweider has developed special and individual finishing solutions. The surface characteristics of technical textiles will improve significantly, inter alia through different cleaning systems. The production process is optimized and the quality of the final product is increased.



Product example Xetma

[www.xetma.com]

Demonstrator – embroidered strain sensor in a rotor blade

STICKPERLE

Recise data with embroidery

The manufacturer from Plauen, Germany, is focusing much attention on an innovative branch of embroidery, namely technical embroidery. What is so exciting about this field is that it is possible to stitch in any direction and any drop point can be selected as often as required. A variety of different functional materials can also be combined. This technique provides unprecedented levels of freedom in the dimensioning of the layout (e.g: spirals, meanders) and the ability to incorporate non-textile materials which would previously have been inconceivable for cloth, warp and weft-knitted fabrics and nonwovens. Placed sensor layouts can be incorporated, for example, in plastic components without interference (Tailored Sensor Placement /TSP Technology). A further focus is the development of measuring sensors that pave the way not only for the detection of actual states but also the generation of precision measurements directly from the components. This technology has been developed in close cooperation with the Competence Centre for Lightweight Structures at the Technical University of Chemnitz and other research partners.

[www.stickperle.de]

RESEARCH

Allianz Textiler Leichtbau (ATL)

The ATL partners initiate and process projects together with companies. The speciality is on the fields of textile engineering and technology as well as structural and system lightweight construction. ATL presents itself together with partners: The Department of Lightweight Structures and Polymer Technology and the Endowed Chair „Textile Plastic Composites“ of the Chemnitz University of Technology, the affiliated institutes Cetex and the STFI, the thermoPre e.V., the Cluster of Excellence Merge (Technologies for Multifunctional Lightweight Structures), the Fraunhofer research center "Systems and Technologies for textile structures" (STEX), the network „Fükomp hybrid – Joining technologies for hybrid material systems“. Read more on www.textile-network.com

[www.cetex.de]

textile network

on the web

In May, textile-network.de will receive a completely new look! Meisenbach Verlag has created a new website for the international premium magazine for the textile chain. Our new online magazine will feature new content and new functions from mid-May. You, our readers, will take centre stage – after all, the website has been designed for you and your interests. Take a look for yourself!



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CALENDAR OF EVENTS

15. Chemnitzer Textiltechnik-Tagung: „Textiltechnik als Schlüsseltechnologie der Zukunft“05/31/2016 – 06/01/2016 | Chemnitz
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Mayer & Cie.

The reinvention of knitting!

Spinitsystems, the new technology from Mayer & Cie., takes a truly unconventional approach to knitting. In a nutshell, the spinning and knitting processes are combined, such that spinning, cleaning and knitting all take place inside one machine. This means that, for the first time ever, knitted goods are no longer made from yarn but from fibre rovings, rendering the rewinding process completely superfluous. At ITMA 2015, Mayer & Cie. celebrated the debut of its new, production-ready machine, the Spinit 3.0.

This innovative machine slashes the manufacturing time for single jersey knitwear. At the same time, it cuts investment costs whilst maintaining output, as fewer machines are needed. This, in turn, leads to space and energy-savings. Yarn inventories can be reduced, waste levels cut and production costs minimised.

The innovative “3-in-1 concept” allows the fibre roving to be fed directly into the machine where it undergoes a false-twist spinning process. A positive side effect of this procedure is that the fabric will not skew. Dr. Wolfgang Bauer, Head of R&D at Mayer & Cie., describes the most important developments on the machine as follows: “The drive technology had to be adapted to the requirements of spin-knitting. The breakthrough came in the past couple of years with the development of our Fancy Module, enabling us to vary the yarn count during the produc-

tion process. The Spinit allows us to create really innovative patterns.” Perhaps the biggest obstacle to be overcome in the development phase involved the cleaning of the roving. This achievement led to a patent application. The compact build and easy operation of the Spinit 3.0. have great appeal. The modular design means that the modules are easy to attach and remove. The patented cleaning system eradicates irregularities and allows quality to be defined with precision. The machine operators will, however, need to adapt to the new system which transforms knitting or spinning experts into spin-knitting specialists.

At ITMA 2015 in Milan, the Spinit 3.0 was presented in a separate room, and not just because it requires a special spinning environment. The response from the industry was huge. “We had around 600 company enquiries and up to 90 visitors viewing the machine every day, including a whole host of potential customers, from fully integrated companies through to spinning mills,” concluded Michael A.

Tuschak, Sales & Marketing. “We sold several machines during the fair which we will be delivering in the course of this year.”

Machine with great potential

Mayer & Cie. firmly believes the Spinit 3.0 has a great future, not only in traditional textile markets, but also in countries whose wage costs are high. Michael A. Tuschak: “A lot of cotton is grown in the US. The Spinit 3.0. means that cotton processing costs can be cut whilst opening the door to new kinds of knitted fabrics. This technology conceals a lot of hidden potential for our industry. Besides the usual single jersey applications, such as T-shirts, tops and underwear etc., technical applications are also possible, for example, as substrates for coatings.”

Looking to the future, the company's innovation plans will focus on the further development of the Fancy technology and the expansion of processing options.

[www.mayercie.de]



Spinit 3.0.





Photo: Stoll

The technology from Stoll offers great potential: it enables functions, such as compression zones, ergonomic designs, seamless products and much more. You will discover more on this page and in our online magazine!

Stoll

Functional products with innovative technology from Stoll

In sportswear and fashion, the inclusion of decorative and functional elements is growing in importance, as manufacturers see it as a good way of offering customers added value. The aim is to incorporate the special functions in the apparel already during the production process and exactly where the customer needs them. Production technologies that pave the way for individualised and sustainable production are also gaining ground.

Technologies such as flat and warp knitting offer an abundance of different and highly interesting options. The technology from Stoll, for example, offers great potential: not only does it enable functions, such as compression zones, to be applied in specific areas but it also facilitates the realisation of ergonomic designs and the creation of seamless products. Production with little or no waste at all is also feasible.

Advantages of Stoll flat knitting technology

The machine technology from Stoll offers a variety of advantages in the manufacture of in-

novative sporting goods, whose design is, in many cases, derived from elastic bandages and compression hosiery. The garments – most of which consist of bi-directional elastic fabrics – can be made to exact specifications in terms of shape and function. The pieces are made with precision contours such that they can be joined together perfectly with the option of using an optimised or concealed seam. The shaping of the contours is aided by a 3D forming technique. The latter is able to generate a spherical shape through the localised addition or dropping of stitch groups, thus creating fitted contours in three dimensions.

Flat knitting offers many benefits

Besides 2D or 3D fabrics, flat knitting technologies can also produce seamless garments, including, for example, shaped tubes or tubular fabrics linked to shaped flat knits. Meshed open structures can also be placed alongside closed ones. These changing structures can be used in the apparel or

sportswear field for body-mapping effects or similar functional zones. Jacquard designs can be used to create graphic and colourful surfaces whilst intarsia and plating techniques are good for introducing colour and function zones; intarsia applications are also suitable for creating metal sensor fields on conductive textiles. This versatility and the design freedom associated with it explain why flat knitting is becoming more and more prevalent in technical applications. Flat knitted goods are already in use in medical engineering, in shoe uppers and increasingly in sports accessories and car interiors.

Martin Legner, Head of Technical Textiles for Stoll: "When talking about shaping, we can also talk about composite materials." He believes that the topic of "seamless production" will assume a role in the manufacture of simple, always reproducible garments.

However, certain restrictive knitting designs and complex development steps mean that this technology will always have its limitations. It is, moreover, conceivable that linked

production lines in the factory of the future will carry out much of the joining and that new measures will help to automate the production processes.

An important goal for the future of flat knitting technology lies in increasing production speeds, says Legner. The company has also set its sights on incorporating expanded technologies such as the controlled insertion of warp yarns to create new structures. Finer gauges coupled with increases in output are expected to extend the potential of flat knitting for textiles in car interiors and sportswear; flat and warp knitting technologies similarly have great potential with respect to Industry 4.0 and aspects of individualisation and flexibility. Both technologies have already embraced the ideas associated with 4.0: the entire process is already digital, making it completely transparent and traceable. This paves the way for a modular production set-up with networked machines offering customer-specific solutions!

[www.stoll.de]

New development is impressing all with structured surfaces – the new 'nanos' by Christoph Liebers GmbH & Co. KG come just in time for ITMA – Patent protects surfaces of sinkers and cylinder walls Ingolstadt.

Christoph Liebers

The nanos are coming!

For centuries, producers of knitting elements have left no stone unturned in trying to produce spick and span surfaces, and above all with a smoothness that gives the steel a silvery shine and with it a particularly luxurious appearance. But the new product on the marketplace from the German sinkers production plant in Bavaria questions this flawless shine. Michael Starke, one of the managing directors and also the son-in-law of the founder of Christoph Liebers GmbH & Co. KG, explains: "Those who want to understand the advantages of these 'nanos' needs to look at the pieces of gold under the microscope." And in reality, its surface is no longer flawlessly smooth. Rather, the firstly structured surface is characterized by a host of tiny inclusions, a fraction of a millimeter large. In these microscopic cavities, oil is held, which is extremely important for the lubrication of knitting machines. These

irregularities, undetectable to the untrained eye but nevertheless intentional, just like small cells, keep the lubrication film even. Each and every lubrication film, which protects the sinkers, splits at a certain temperature (cooking hobbyists know the phenomenon whereby heated oil clumps together and large patches in the pan become oil free). Michael Starke, responsible for the new surface structure, explains: "Because of a lack of oil on large parts of sinker surfaces, there is significantly more friction than with the new 'nanos'. In contrast, the lower wear by using 'nanos' has a whole range of advantages besides lower temperatures."

And in fact the flyer of Christoph Liebers GmbH & Co. KG lists a whole range of seemingly logical advantages. Right away it is clear that less friction is linked to reduced wear and lower temperatures. It is also undeniable that energy

consumption is lowered by less friction and that the 'nanos' have a longer life. Another convincing argument that speaks for the new 'nanos' is that lower friction produces less abrasion, which normally pollutes the machines and the knitwear. Michael Starke responds to the doubters of the new generation of sinkers with the certifying series of tests from the renowned "Fraunhofer Institut für Schicht- und Oberflächentechnik" (Fraunhofer Institute for Layer and Surface Technology) in Braunschweig. There in the centre for Tribological Layers – New Coatings and Systems they certified in a test assembly what the Gaimersheim residents had already proved through years of development work. By using oscillating friction probes, the force exerted on the sinker surface in a knitting machine during production was lightened.

The scientific department handed over to the Layer and Surface Technology experts of the Fraunhofer Institute. In the test assembly, a test body, whose surface corresponds to that of the sinker, was moved back and forth on a similar test body made from steel, with a vertical force and a frequency that is common in production. The result: on the traditional sinker, the oil film split after around five minutes, the friction value showing afterwards a constant increasing trend. But not so for the 'nanos', newly developed by Christoph Liebers GmbH & Co. KG. Because of the pieces of gold, the oil film was kept



The two Managing Directors of Christoph Liebers GmbH & Co. KG, Thomas Liebers and Michael Starke (rights) proudly presenting their first nanos

constant even after the one and a half hour test time. After the time was up the test showed an ever decreasing tendency in the friction value. The conclusion of the researchers? The surfaces of the 'nanos' (quote): "reveal significant differences in friction value and in the danger of wear!" But the results of the research and the corresponding scientific proof are not the only reason why the Bavarians are projecting a golden future with their 'nanos'. "The surface is patent-protected" – according to Michael Starke who not only carried out the whole process but also ensured the result of the patent. With this it will be hard for market competitors to match the sinkers production plant in Gaimersheim. Read more on

[www.textile-network.com]

[www.liebers.de]

Nano saves up to 12 percent energy!

Thomas Keck, Head Developer at Merz Maschinenfabrik: "We're thrilled with these really convincing test results. They've shown us the huge potential for savings as well as the production benefits of this newly developed nano technology."

In contrast to the (once conventional) smooth surface, the forces do not kick in until they are required to move the parts. The nano surface, which is characterised by microscopic depressions enabling it to maintain an evenly distributed film of oil, is extremely easy to set in motion. The machine ramps up without fluctuations in speed or torque peaks. Production starts up smoothly and with ease. The nano technology reduces friction during production. Torque and power supply are constantly lower.

Topp Textil

Social. Environmental. Driven by innovation.

The family business Topp Textil is currently managed by the third generation. Dr. Stefan Topp is now the Director (after Volker Topp). Business focus is the production of tapes and textiles as well as the development of textile solutions. Here, the company is always focused on the individual needs of the industry and the customers.

A total of 185 employees work at the four sites in Germany, Italy and Romania. Linchpin is the head office in Durach in the Allgaeu where the Topp Textil GmbH has been based since the 90s.

At the largest of its sites in Durach the company has at its disposal various laminating, printing and finishing processing in addition to its in-house weaving mill. Topp offers complete and customized solutions for textiles from stitches and fabrics to finishing and coating to the point of special parts: In the fashion, technology and the hometex sector the team exploits of well-trying but always develops new things – to get inspired consistently and to strike out on new paths is a fixed part of the corporate philosophy and important condition of their growth.

For the clothing industry under Topp Fashion the range offers various fabrics and tapes out of different materials and colours. Fashionable competency is bunched with a large collection of 1,800 basic articles of knitted and warp knitted fabrics as well as flat woven fabrics which are available on stock at the site in Italy. Technical textiles are developed under Topp Techtex specifically for the requirements of each industry. They are suitable for the Automotive and Aerospace Industry, Mechanical Engineering as well as the Medical and

Photo: Topp Textil / Steven Stetter



For the production of technical textiles can be used different filament and staple fibre

the Environmental Technology. Also in this area Topp comes up with a wide range of production possibilities – from flat fabric to coating and finishing up to specific components. Plants in Eastern Europe offer the opportunity for small batch production.

For example Topp Tube – textile tubes and endless bias fabrics with

high yarn counts up to 1,800 mm width. They enable tubular fabrics without selvedge with uniform technical requirements. In addition, bias fabrics of elastic textiles are suitable for mapping three-dimensional structures. Also an in-house invention is Topp Seal: The different technical sealing tapes are used to seal seams which are subject to ►

► high demands and are exposed to loads on a variety of surfaces. Insofar as processing is concerned the Topp Textil GmbH has also something at the ready. Cutting, punching, perforating, sewing, laminating, glueing, printing – everything is feasible and variations are selectable. They cut hot or cold, straight, semi-bias or bias, if desired cut to length. Topp offers various wet, dry and hotmelt glueing methods and in the area of printing surface and gravure printing, screen or transfer printing. One thing becomes apparent: The Topp Textil GmbH is one of the drivers of innovation in its sector in reference to what they do and how they do it. What is the secret of the continued success – in addition to their flexibility, the courage to try something new and the high fashion and technical expertise? There is one more major factor: Topp is a social and ecological exemplary company. From the management to the production the employees work wholeheartedly. Fairness and transparency are essential for the motivation of employees and are therefore being supported as well as self-contained action and creativity. Everyone has the opportunity to develop individually in the company. Cooperation, team spirit and respectful interaction with each other make the pleasant working atmos-



Dr. Stefan Topp,
CEO of Topp Textil

phere. In addition to many special services, between 50 percent to 85 percent of the achieved profit has been distributed to the employees since 12 years – an additional bonus of Topp Textil.

The secret of success?

Responsibility is also an important part of the company's credo: The conscientious use of environmental resources and the protection of the environment are an essential part of daily activities. Rainwater is collected and used for the production and the management, the in-house cafeteria is cooking with organic ingredients, for heating of the building solar energy is used and the electricity of the company is based 100 percent on renewable electricity – and it all comes from the region.

As a regional family business Topp aims optimal conditions for the people in the company and a continuous improvement of its environmental performance. The intention: to remain credible by transparency. Authentic, ambitious and open-minded – the core of the brand Topp Textil paved and paves the way further into the future. CEO Dr. Stefan Topp assumes a steady growth in sales also in the coming years. He is already planning a renewed expansion of the site in Durach, the increased integration of the sites abroad and a further increasing internationalization. Inspired by textiles Topp remains on target as creative director and enriches the industry – the founders pioneering spirit is still blowing through the house.

[www.topp-textil.com]



Administration
building from Topp
Textil in Durach
near Kempten

Photo: Topp Textil / Steven Stetter

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Weaving at ITMA

Technological change – after 230 years

The wind of technological change is blowing through the weaving industry, as more and more manufacturers take up the challenge to move away from weaving machines driven by a single main shaft. This was probably one of the most salient features of ITMA 2015 in Milan last November. Other than that, pioneering inventions in weaving and other areas of the exhibition were few and far between.

Even so, the astute observer could still discover a wealth of exciting innovations and trends, many of which were often only visible on closer inspection. In some cases, this low-key approach appeared to be intentional. It also seemed that the weaving machine industry struggled with the ITMA 2015 guiding theme “Master the Art of Sustainable Innovation”. All they could seem to muster were agonising references to the contribution of the products manufactured on their weaving looms towards sustainability. Others indicated that they were using energy recovery systems for the first time. More revealing details were still treated as classified information. Whilst this is understandable, it actually seemed a rather futile undertaking, as Siemens had its synchronous reluctance motor on full view in the adjacent hall. In contrast to asynchronous motors, this highly energy-efficient drive technology operates at optimum efficiency even when it is not working to full capacity. The “Active Line Module” (Siemens) allows braking energy, for example, to be fed back into the power network.

Particularly European producers of weaving machinery are exploring the opportunities offered by new drive technologies such as these

Photos: Büsgen



The weaving exhibition at ITMA 2015 in Milan

and, in some cases, are already applying them. A trend, that was emerging at the two previous events and has become a conspicuous reality since Milan, is the tendency to decouple the weaving machine drive from the shedding drive. The bene-

fits of doing this include increased flexibility (e.g. timing, shed size), smoother running (which can increase speeds), the avoidance of maximum loads during start-up and less wear and tear on the shedding elements. ►


► Flexibility and automation

The well-established Synrodrive from Dornier was joined in Milan by other manufacturers offering separate shedding drives such as Grosse (X-Drive), Panter (Armotion) and Tsudakoma (ZAX9200i-Master). Toyota, the pioneer of servo-motor shedding motions, presented a revamped "E-Shed" system, which makes energy-savings of up to 20 percent through liquid cooling. According to Grosse, the Unished 2 (decoupled) jacquard machine is now market-ready. All this indicates that two or multiple drive systems are here to stay, particularly for the more exacting items to be produced on weaving looms. The single drive unit, invented by Edmund Cartwright in 1785 for the main func-

tions of shed opening, weft insertion and beat-up, is thus being replaced for the first time in a mind-boggling 230 years! In engineering circles, this is not surprisingly considered something of an event.

Another noteworthy feature in Milan was that around a quarter of the weaving looms on show were presented in conjunction with technical textiles. Particularly the smaller manufacturers were able to find favour among visitors for innovations in niche markets. Smit displayed the "One 220", a new version of its modern single rapier weaving loom, which enables minimal shed opening. In immediate proximity to this, Panter presented two UniRap single rapier weaving looms, whose shed dimensions had been reduced down





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to just 27mm. Panter's Uni Rap 160 was also operating with a zero-twist weft preparation unit for the production of "spread-tow" cloth. Particularly high reed impact forces are needed when weaving dense filtration textiles. Dornier's reputed P2 reaches a reed impact force of 50kN on a width of 3.2m and a warp tension of 4.6t. Trinca exhibited a special 4m-wide machine (Type: Fast-rong) with a beat-up force of 12t. To accommodate such high forces, as many as four batten drives are required. Following the force of weft beat-up, the batten briefly comes to a halt in the front position to allow the weft yarn to relax.

Innovations relating to the flexibility and automation of weaving looms are predominantly unobtrusive but can still have a huge impact on quality and costs. One of the most interesting developments in this area emerged from Toyota's takeover of Uster. A sensor, that looks similar to Uster's yarn clearing sensor, is positioned between the weft bobbin and the weft feeder of the air-jet weaving machine. The system known as Alpin is capable of fine-tuning the

air jets during operation as it responds to yarn quality measurements. Picanol uses the intelligent "Blue 22 Easyset" weft feeder to optimise the length of the weft yarn during the weaving process on air-jet weaving looms. An automatic filling breakage system removes broken weft yarns from the middle of the machine by blowing in a second weft yarn to capture the first mechanically. Both weft yarns are then removed by winding rollers. Dornier demonstrated a revised nozzle concept on the A1 air-jet weaving loom that can gently process worsted yarns at 1,000 weft insertions/min, thus reducing hairiness.

Shedding systems

Exciting progress has been made in the field of shedding systems. When used in conjunction with air-jet weaving machines, dobby units are something of a hindrance as the shedding struggles to keep up with the weft insertion. Stäubli's latest rotation dobbies reach speeds of up to 1,100rev/min. This almost matches the speed of eccentric drives, which in practice do not exceed speeds of much more than 1,300rev/min. Shedding using servo motors, such

as was shown by Toyota, is both faster and more flexible, achieving 1,200rev/min. In ideal conditions, this process can even reach speeds of 1,500 to 2,000rev/min. Such speeds have otherwise only been obtained on machines with single main shafts.

Interesting innovations were also in evidence for jacquard machines. For years now, the industry has been increasing the number of hooks. To ensure that big jacquard machines with e.g. 16,128 hooks do not become wider than the weaving looms, Bonas has successfully developed a more compact design (Bonas SI). Grosse demonstrated a machine concept with four servo drives and two main shafts. This not only makes it possible to control the selvages with advance shedding but to vary the shed closing times at the front and back for smoother operation. Finally, the visitors were visibly impressed by the LXL machine from Stäubli, which operates with 12,288 hooks and produced a one-piece-woven airbag measuring 2.8m wide at 800rev/min (i.e. with a weft insertion speed of 2,200m/min).

[Prof. Dr. Alexander Büsgen]

The Fastrong heavy-duty weaving loom from Trinca



Sensor for fine-tuning air jets – a development by Toyota and Uster



Heavy-duty weaving loom for filtration cloth from Dornier

ITMA is unchallenged as the world's leading trade fair for manufacturers of textile machinery. It takes place every four years. The 17th ITMA took place from 12 to 19 November 2015 in Milan at the new exhibition area "Milano Rho exhibition centre". At the end of eight days, the 17th edition of the world's most established textile and garment technology exhibition attracted visitorship of almost 123,000 from 147 economies. The next 18th ITMA will be held in Barcelona from 20 to 26 June 2019.

[www.itma.com]

ITMA 2015

Quo vadis textile recycling?

At the 17th ITMA in 2015 in Milan, the focus was on ITMA's motto of 'Sustainability' in relation to efficiency and modularity in machine and system design. Even though the exclusively European sector of recycling machine producers has captured a comparatively small share of the market, interesting innovations were there to be discovered.



As in textile machine manufacturing, in textile recycling too such new developments are primarily in the fields of modular machine and system construction, energy efficiency by means of variable frequency drives, and the replacement of belts and chains with individual motors.

Textile recycling begins...

...with the collection and sorting of textile waste – and since used clothing is becoming more and more important as a raw material, there is increasing demand for effective solutions to sorting it economic-

ally. Alongside a box sorting system limited to 28 sorting criteria, Valvan Baling Systems NV (Belgium) also supplies a speech-driven belt sorting system with a virtually unlimited number of sorting criteria. The automated Fibersort sorting system was introduced as the result of a community project. Using NIR spectroscopy, textile waste can be sorted by fibre; in the case of mixed fibres, the fibre to which the waste is allocated must represent at least 60% of the total content. An initial test plant is intended to sort up to

lers have increased its workrate by 25 percent to 250 cuts per minute with a throughput of up to 10 tonnes per hour, helping to save energy with this machine, which can be combined with the Robot semi-automatic feeder system. Guillotine cutting machines are also produced by Dell'Orco & Villani (Italy) and Balkan (Turkey). And alongside other rotation cutting machines such as those from Laroche SA (France) and Margasa (Spain) with various widths and throughput rates, the Recyfoam RF-55 from Masi-

as (Spain) is designed as a specialist machine for shredding foam waste. With Pierret's CB bobbin cutter, material from waste bobbins can be separated and recovered without damaging the spools.

Companies using textile tearing equipment can run a very efficient and intensive operation nowadays.



On display for the first time at ITMA 2015 in Milan: Pierret guillotine cutting machine, type CT60N

5000 tonnes a year. A process called 'pre-shredding' represents the first step in the recycling process chain. The cutting machines used for this task work on either the rotation or the guillotine principle.

Pierret Industries SPRL (Belgium) has re-engineered its tried and tested CT60 guillotine cutting machine. Servomotors and SPS control-

Variable frequency drives have become the state of the art. Correctly used, they improve energy efficiency whilst at the same time having a positive effect on the quality of the torn fibres. Individual motor drives on material transport units allow tearing equipment to be adjusted to the material, reducing both maintenance costs and



Unirec shredding machine in a three-drum version

the risk of accidents. Motorised adjustment of the technologically important gap between the entry point and the drum enable a rapid reaction to changes in the quality of raw material and torn fibre. Measures that shorten maintenance times and downtime (such as hydraulically supported hoods, movable tearing drums and rotary sieves) are included in the delivery by many manufacturers. Traditionally, producers such as Dell'Orco & Villani, Laroche SA and Margasa offer complete high performance systems for the preparation of used clothing, typically including integral pre-openers and various units for separating foreign parts. Of a similarly robust construction are the systems designed for preparing waste from the production and cutting processes. Lines designed to produce fibres of spinning quality are characterised by combinations of drums in varying diameters. Lines for in-house recycling are of fairly compact construction; for working widths of between 0.5 and 1 metre, such as the solution offered by Autefa Solutions (Germany), these consist of up to three units. Dell'Orco & Villani is tackling the preparation of waste from waterproof nonwoven materials with its redevelopment of the TCO Twin Carding Opener. Two drums, equipped with three and five work rollers respectively and arranged one directly behind the other, process both large-area and pre-cut material. Omni (Italy) has introduced the OpenMax-APM, a tearing machine module that can be integrated into a line either individually or in multiples, depending on requirements. One interesting detail is the interplay between the main drum, which is fitted with studs, and the

five work rollers equipped with full steel sets.

Nonwoven materials

Nonwoven materials remain, as ever, the main use for shredded fibres, although a proportion are used for yarn. The nonwoven machine manufacturers have a comprehensive range of suitable technology designed for processing shredded fibres. The number of different technological versions and processing combinations is on the increase. There is a stronger focus on the various methods of producing random nonwoven materials, as the most economically efficient option for processing large quantities of material into large, thick products of different densities. Random nonwoven production is also a way of processing fibre material that is less well-separated. On the K12 from Autefa solutions, the random web production is connected directly to a carding process. Other systems process the flock fibres either by repeated separation and matting using an aerodynamic air stream (Laroche Flexiloft) or directly into a random web from a modified chamber system (Bematic T-Max). On the Lap Formair from Cormatex, the characteristic fibre orientation resulting from both processes is used to achieve a cross-sectionally graduated structure.

On carding systems, too, shredded fibres can be carded and formed into nonwoven material using cross-lappers. Because the designs of such systems have remained relatively simple, high performance levels are not (yet) achievable. Aside from the limited number of carding points, more important are details such as permanent vacuum suction of the moving parts and easy

cleaning. Here, too, a trend can be detected towards comprehensive suppliers who can provide all the system components for preparing waste and processing shredded fibres from a single source. For bonding the nonwoven materials, machine manufacturers offer a number of different options – as well as needling machines, units for thermofixing and thermal compression are also available.

[Bernd Gulich, Sächsisches
Textilforschungsinstitut e.V.,
Chemnitz]

Bematic T-Max
random web former



Photo: Autefa

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European textile trade fairs

Summer 2017 – everything is on the move

The most recent international textile trade fairs for the Spring/Summer 2017 season had to pay their respects not only to the Chinese New Year festival and New York Fashion Week, but also more than ever to global geopolitical and economic uncertainties.

At Paris-Le Bourget, Texworld (888 exhibitors) registered a 7 percent fall in visitor numbers to 12,684. Notable by their absence were buyers and designers from America (-8%) and Asia (-18%). Getting the Asian sector to exhibit in its usual numbers (650 exhibitors) was itself an achievement. Michael Scherpe, Director of Messe Frankfurt France, left no room for doubt there, given the enormous concern and uncertainty following the terror attacks in November.

Première Vision at Paris-Villepinte (1,725 exhibitors) was sufficiently concerned about security to impose bag and jacket searches. The total official number of visitors at all six trade fairs was 55,025, which is lower than last year; the largest groups by nationality were the French (15,070), British (6,434) and Italians (6,312). Slow growth in Chi-

na and problems in Brazil and Russia are also causing a weakening of growth in the luxury market. Global consumption of textiles and clothing fell by 0.4 percent in 2015, while the increasing concentration of the big players in the international clothing trade is also having an effect, and this in turn is affecting the quantity and quality of visitor flows at the fairs. Yet the number of visitors from Russia and Poland did show some growth, as did that from Spain and Scandinavia.

Regionality wins

Munich Fabric Start in Germany, with its predominantly German-speaking visitor base, reported growth, although it is no longer announcing absolute figures. The same is true of Milano Unica in Italy, which once again officially showed two-digit percentage growth in ex-

hibitors and visitors. As a way of revitalising, it is moving this September from the centre of Milan to the exhibition site at Milan Rho-Pero.

In the throes of change

"Fair to difficult" is how Claudio La Cioppa, Managing Director of HOH Hoferhecht (Switzerland), speaking for a number of companies, describes the current situation. Globally rising customs duties, currency fluctuations (the weakness of the euro against the dollar), low oil prices and the consequent fall in the price of



synthetic fabrics, not to mention the price pressure to which European producers feel they are being subjected by China: those looking for positive signs in the face of all this will find them, amongst other places, in the customer-specific short-term programmes that HOH Hoferhecht and increasing numbers of other European textile companies are devising for their demanding customer base. It is a trend that is giving the large trade fairs in Europe pause for thought about their role in the sourcing business.

Animated fabrics

Our forecast (cf textile network, issue 1-2) has proved correct. The fashionable phrase at Bonotto (Italy) about the summer says it all: "Everything must be animated and elaborate." Fine structures and pleats were successful across the board. In addition, manufacturers are looking for flowing qualities with a special feel, such as blends of cupro and viscose or polyamide with a heavy drape, in woven or knitted fabrics. To this end, Viscotex (Italy) has entered into a cooperation agreement with Japanese cupro manufacturer Asahi Kasei Fibres Corporation. The Japanese fibre producer has also recently launched onto the market a reactive, dyeable elastane, Roica Colour Perfect. In womenswear the emphasis continues to be on viscose crepes with a heavy drape, fris  articles or papery qualities of cotton with rather more hold. At Gunold (Ger-

[1] Pleats set the direction for fashion. Seen at Bonotto

[2] Serikos fabrics lend a silky and super-fine interpretation to the fringed theme

[3] Graphic and minimalist, Philea presents a contemporary romanticism

[4] Ankita Exports (India) uses graphic metallic elements as a decoration in its fabrics

[5] Finely textured denims are on the menu from Denim Exports (Bangladesh)

[6] Quingsheng Weaving (China) lends an elegant minimalist interpretation to floral designs

[7] Innovative interpretations of camouflage designs are possible, as shown by Shin Hwa (South Korea)

many), specialists in embroidery threads and accessories, they have noticed a resurgence of interest in embroidery. Over-decorated, over-full embroidery designs with a raised texture met with success here. Keenly scrutinised were references to the home-made and natural look, such as the masculine appearance of linen/ramie women's garments from Lanificio F.lli Cerruti (Italy). In menswear, there were new developments here on the 'travel suit' theme using a water-repellent wool/silk blend, as well as washed silk for jackets. Light cotton/jersey bonds and cottons with a technical hint (Lanificio Roma, Italy) are also current menswear themes. In trimmings, metallic co-

lours, at Bodo Jagdberg (Germany) for example, were "very good", not to mention fringed straps and tassels.

Light and transparent

Light and transparent items are attracting attention. Cotton specialists such as Progetto Uno (Italy) have appealing light satins and twills, linen weave Tencel articles and light, flowing linen blends, all suitable for PPT. Ultra-lightweight summery denims turn up, with fine graphic weave patterns or in a warm camouflage, batik or vintage look. Stripes are a major theme, as well as abstract and floral patterns.

[Regine H velmann]



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MILANO UNICA

New ideas abound

"Inertia" is quite clearly not in the vocabulary of the decision makers and organisers behind Milano Unica. The previously individual fabric fairs Ideabella, Ideacomo, Moda In, Prato Expo and Shirt Avenue have been staged within the Milano Unica brand since 2005. Taking place twice a year in February and September, the three-day event gives companies the opportunity to present their Spring/Summer and Autumn/Winter collections for the following year together with corresponding accessories. Now that the event in Milan has spread its wings to Shanghai

and New York, it has come to be known as Milano Unica World.

The 22nd edition of Milano Unica in February took place with its new President Ercole Botto Poala at the helm. Elected in September 2015, he succeeds Paolo Zegna, the first President of Milano Unica, Pier Luigi Loro Piana and Silvio Albini, who recently handed over the baton to him after four years in office. In September, Milano Unica will be able to spread out in the new exhibition centre in Rho-Pero, and will share two days with leather fair Lineapella. The venue in Rho-Pero will be host-

Milano Unica, the Italian trend fair for fabrics, is transferring to the bigger International Milan Exhibition Centre in Rho-Pero this September. This move comes after more than ten years at Milan's former exhibition ground in the city centre, now known as Fieramilanocity. This quantum leap coincides with the appointment of its new President, Ercole Botto Poala. The 22nd edition of Milano Unica in February posted a six percent rise in exhibitors and a 13 percent climb in visitors. All in all, it was a resounding success.

Impressions - Milano Unica



Photos: Milano Unica



Changeover at Milano Unica – Silvio Albini (right) passes the baton to the new President Ercole Botto Poala

ing Origin Passion and Beliefs at the same time, both of which target manufacturers of "semi-finished products" for the high-end market. Looking to the future, the February edition of Milano Unica gave the industry plenty of confidence. Attracting a 13 percent increase in visitors, the number of Italians climbed 13.8 percent, compared to an 11% improvement among foreign buyers. Everyone was delighted to see the return of Russian buyers, up 39 percent. But that was not all! Double-digit increases were also posted for European buyers from Portugal (+33%), Holland (+30%), the UK (+27%), Spain (+17%), France (+15%) and Germany, up 14%. Milano Unica also welcomed four percent more visitors from the US. The exhibitor numbers also experienced a rise – climbing six percent from 399 in February 2015 to 424 this year. 72 came from abroad, with a further 40 and 13 featured at the "Observatories" for Japan and Korea respective-

ly. The latter gave visitors an insight into their companies at their national pavilions. As far as the fabrics are concerned, a trend is emerging towards higher quality and better features. The industry is also increasingly responding to the needs of the leisure and sportswear fields. The finishes are becoming more fleecy, comfort is given priority. The colours are characterised by an abundance of shades along with several striking eye-catchers. Milano Unica New York took place on 6 and 7 July. The 23rd edition of Milano Unica, running from 6-8 September, will unveil the latest trends for Autumn/Winter at the exhibition centre in Rho-Pero.

[www.milanounica.it]

FILO

Innovation and Globalisation

The 45th edition of yarn fair Filo, which ran at the Palazzo delle Stelline in Milan at the beginning of March, was all about innovation and globalisation. With an offering predominantly devoted to high-quality yarns in the high-end segment, the trade fair is exclusively casting its focus on trade visitors in the b2b segment. Around a third of the buyers came from abroad. "The mood was positive," concluded the

exhibitors as the two-day event drew to a close.

More visitors, particularly from abroad, wended their way to Milan. The exhibitors at the 45th Filo were happy with the outcome of the event. Filo is all about forging direct contacts with manufacturers, discussing experiences and ideas and providing input for the designers and producers. The spring edition of Filo was more about innovation than ever. There is a

lot going on in the yarn segment – both in terms of fashion yarns and technical finishes. Glitter effects are a big theme, durability another. Yarn weight is also being given more attention. Garments are expected to be multifunctional – usable from morning till night, in the heat and in the cold. The 46th edition of Filo is scheduled for 28 to 29 September 2016. More about Filo on

[www.textile-network.com]



Photo: Filo

The National Exhibition and Convention Center in Shanghai hosted the Intertextile Shanghai Apparel Fabrics 2016 - Spring Edition for the third time



Photos: Messe Frankfurt (HK)

Intertextile Shanghai Apparel Fabrics

Soothing signals

China and its textile industry are attempting to win back international confidence, as an extensive consolidation process continues behind the scenes. All the higher were the stakes at Intertextile Shanghai Apparel Fabrics for Spring/Summer 2017. Fortunately, business was brisker than originally expected.

The most recent edition of Intertextile Shanghai Apparel Fabrics (16-18 March 2016) posted an increase in visitors and a far better atmosphere than the exhibitors and organisers had feared. As the three-day event drew to a close, the relief was palpable. This is hardly surprising, given that the textile industry accounts for ten percent of China's Gross Domestic Product, if the figures from the 13th Five-Year-Plan of the CNTAC, the China National Textile and Apparel Council, are anything to go by. Fears have also been fuelled by global concern over China's slowing growth rates.

During the three days of the event, 71,163 visitors wended their way to the National Exhibition and Convention Center, which was concurrently hosting Intertextile Shanghai Apparel Fabrics, Intertextile Shanghai Home Textiles, the Yarn Expo, Chic and PH Value (China International Knitting Fair). 50,000 buyers had registered specifically to go to Intertextile. The fabric fair, organised by Messe Frankfurt (HK) Ltd., the CCPIT and the China Textile Information Center, attracted 3,155 exhibitors from 27 countries and regions who together filled six halls (including

Milano Unica China) featuring the product segments Trimmings, Fabrics for Menswear and Womenswear, Casual, Sports and Activewear as well as a variety of trend forums. It turned out to be the biggest ever summer event and the third to be staged in the newly built exhibition centre in the west of Shanghai. Wendy Wen, Senior General Manager Messe Frankfurt (HK), believes these visitor figures show that the Chinese market still offers a wealth of opportunity for suppliers from abroad, irrespective of all the changes afoot. She also maintains that growth is likely to remain at over six percent in the near future and that the mid-range to luxury markets are robust and full of potential.

The Trend Forums highlight the creativity of the exhibitors and the trends for Spring/Summer 2017



"Better than expected," concluded Evon Zhang, External Trade Manager for Wujiang Tutaike Textiles & Finishing Co. Ltd., Jiangsu. The manufacturer of functional fabrics, whose customers include Columbia and the US Navy, greeted mostly Chinese customers at its stand. By contrast, the Hengli Group Co. Ltd., a circular knitting specialist, was pleased with the outcome of the event on account of the overseas visitors. Andy Zhong, Marketing Director of Guangzhou-based denim maker Prosperity Textile (H.K.) Ltd., spoke of an "excellent mix of visitors", comprising 60 to 70 percent Chinese and 20 percent foreign visitors. There was, however, general consensus among exhibitors that Chinese buyers and visitors from the Pacific Rim and Indonesia had come in droves, whereas the American buyers appeared to be focusing on just one trade fair these days.

Consolidation

In the period from 2011 to 2015, China's textile and apparel industry suffered a dramatic decline in value added and profit. Hu Kehua, Director of CNTAC, discussed this point in the presentation he held as part of ►



► the seminars on sustainability. Overcapacities are a serious problem arising in almost all major industrial sectors in recent decades, including among cotton and polyester producers and spinning mills. According to figures from the CNTAC, 60 percent of global fibre production takes place in China. The International Cotton Advisory Committee in Washington has reported that the Chinese government has lowered the guide price for its Xinjiang-grown cotton to 18,600 Yuan/tonne. At the same time, the land set aside for cotton growing looks set to shrink by ten percent to 3.1 million hectares, with output likely to dwindle to 4.6 million tonnes. This move has no doubt been triggered by forecasts suggesting that cotton consumption will fall by five percent to 6.8 million tonnes. This is being blamed on rising customs duties and low polyester prices. Yasuda Eijiro, Deputy General Manager of the Sales Division at Toray Jifa (Quingdao) Textile Co., Ltd., headquartered in Shandong, highlights the pressures created by annual wage increases of eight to ten per cent, a problem that is forcing his company to have a rethink. He concludes: "We are now offering higher quality products." New blends with cotton for casualwear, for example, were warmly received by customers despite the higher prices. At the same time, Chinese producers such as

Impressions –
Intertextile Shanghai

Ningbo Huaifu Donghao Industrial Co., Ltd. from Zhejiang, are being exposed to European pressure on prices. The specialist for blended knitted goods, who works for companies such as Adidas and Tom Tailor, is receiving requests for price reductions that are hoped to offset currency losses fuelled by the weak Euro. In spite of this, the company which claims to be the world's biggest producer of blended yarns and now also has a production facility in Vietnam, is still posting healthy growths – above all, in the domestic market.

New challenges

European suppliers such as German cotton specialist Cotton Style, based in Hamminkeln, can still succeed as long as they move into high-end niches. The company has been operating on the Chinese market for three years. "We have noticed that storytelling is becoming increasingly important here, too," says Markus Laar, Head of Sales. "You can still impress and win customers over with technical sophistication, too." Fine blends from cotton/silk or high-quality sea-island cottons, for example, can do the trick. Exhibiting at the fair for the second time and registered in China since 2015, Turkish denim manufacturer Orta Anadolu claims to be at the receiving end of rapid growth. The company also maintains that Intertextile attracts trading firms with 5,000 to 8,000 stores, that no-one knows in Europe and are expected to pave the way to

"unlimited growth". Andy Zhong of Priority: "The situation for denim is a lot better than it has been in the past three to four years. Even though it's no longer booming as before, there are still many opportunities. The customers are more astute and they're looking for more quality and better service." Stretch garments are still having a positive impact. Advanced Denim, Guangdong, whose customers include the likes of Levi's and G-Star, says BCI-Cotton (Better Cotton Initiative) currently ranks among the "hottest" topics. Oasis Denim has included naturally dyed indigo and Tencel items into its portfolio. Kevin Ho, Sales & Vice President of Administration for the New Wide Group, Taipeh, a supplier of functional fabrics, underlines the rise in Gross National Product and the improving attitude in China towards lifestyle products. "The growing urban populations in China are consuming information from Europe," says Kevin Ho. More and more Chinese brands are trying to rise above the crowd. Whereas three years ago, they may have been copying other products, now they are trying to develop their own styles. Suppliers of more classical womenswear and menswear fabrics and trimmings, including companies such as Union Knopf (HK) Limited, have also noticed that Chinese buyers are displaying a more pronounced desire for style and are moving away from the more "garish" looks of the past. Printed Glacia items for menswear down jackets from de Ball, the German supplier of micro-fibre fabrics and high-quality faux furs, rank among the firm's best-selling products. The Italian silk weaving mill Serikos was pleased with the success of its stripes, bulky cloqués, fil coupés and graphic jacquards. Blended yarn maker Huaifu reported that space-dyed effects and fine textures had stolen the show.

[www.hk.messefrankfurt.com]

[Regine Hövelmann]



PH Value – Spring 2016

Knitting “made in China”!

The Show had strong participation by domestic knitting companies. Some 50 booths were taken up by 76 companies that covered 7,000 sqm, an increase of 10 percent from the 2015 Spring event. It highlighted the manufacturers and knitwear brands from Zhejiang and Guangdong and the lingerie brands from Shenzhen.

Besides the opening ceremony on the first day and the Knitwear Designers Contest Awards Ceremony, 7 catwalk shows featured some of the well-known sweater brands, and 12 seminars covered a

number of topics relevant to the knitting industry. International groups such as the Wool Lab, WGSN came to share the latest information and technology to help the industry make further and new developments. The one-to-one dialogue between the domestic enterprises and overseas buyers were arranged to help both sides seek cooperation and collaboration building towards a more prosperous business future.

Leading cashmere company, King Deer Cashmere is famous for their cashmere products. This enterprise is China's first knitting company to expand abroad. Some 16 years ago they established production in Madagascar exporting 2 million pieces. In 2007, they established production in Cambodia, producing and exporting 1

PH Value – China International Knitting Fair, for the first time came under the roof of CHIC – China International Fashion Fair, held concurrent with Intertextile Apparel Fabrics, Intertextile Hometextile and Yarn Expo at the National Exhibition & Convention Centre Shanghai in mid-March.

million pieces. In year 2000, King Deer invested 10million USD together with AWI to develop four production lines for Optim yarn that meets the environmental and sustainable requirements to be qualified for a green product. In 2012-13 they established an operation in Zhejiang specifically for e-commerce. Now the headquarters in China is more for research & product development. King Deer Cashmere supplies to Sonia Rykiel Paris, Thierry Mugler, S.T. Dupont, Aquascutum London, Elle

Sports, and Marlboro Classics. Equally famous is Erdos which exports 70 percent and 30 percent for the domestic market. They have the famous 1436 brand. At the booth they showed 2 ply 80 Nm very light ladies top for Spring season. They also have 2 ply 200 Nm for scarves in prints. They have but did not show their 1 ply 200 Nm and their finest 1gm spun into 200m yarn. Established in May of 1990, the China Knitting Industrial Association has over 800 members representing the top knitting companies of China. Some ten years ago, the Association developed the China International Knitting Fair and a few years ago the name was expanded to include PH Value. Now it is part of the CHIC program – China's leading and largest fashion apparel & accessories show, held twice a year in Shanghai.

[Vicky Sung]



Photos: Vicky Sung

Yarn Expo 2016 Spring

Uncertainty over cotton's future

The strongest exhibitors from China was from Zhejiang, Jiangsu, Shandong, and Xinjiang. Others came from 14 other provinces. Within the Overseas Zone, the Indian Pavilion with almost 50 exhibitors was the largest and Pakistan next, with 14. Others came from Hong Kong, Indonesia, Singapore, Uzbekistan, and one each from Korea, Singapore, Switzerland Thailand and Turkey.

For the overseas participants, cotton was their main interest and especially China's stored cotton release. R. Narayanasamy, Director of Texprocil – Cotton Textiles Export Promotion Council of India, noted a change in the attitude of the Chinese buyers. "They do their homework before coming to carry out serious business deals, not just price checking", he said. In 2015, India's yarn sales to China grew by 10 percent in volume but price-wise decreased. "India may wish to slow down the sales to China because it is worried about over exposing to China while the demand from other Asian countries is increasing. China however is still India's single biggest market because China's cotton yarn demand is still strong", he added. "Spun yarn

business is a bit difficult these days; 2016 should be a difficult year for textiles", said Mr Agrawal of Indorama Spun Yarn Business Division. Good mills like Indorama can and will continue to reduce cost and improve efficiency to remain competitive. However, he is worried about China's stored cotton. "It is getting old and the quality deteriorates with each year. What will they do with it? If China releases the cotton in a hurry it will upset the international cotton price", he expressed his concerns. Indorama Spun Yarn Business Division has 5 manufacturing locations in Indonesia, Sri Lanka, and Turkey which accounts for almost 11,200 tons of yarn per month. Their spinning plants in Uzbekistan opened in 2011 brought much success. They are selling to European countries such as Spain, Portugal, Italy and Bel-

gium but he predicted that the future of consumption will shift to Asia. "Cotton yarn is a shrinking business but fancy and mélange yarns are picking up", said Mohammad Saad, director of Abtex of Pakistan. He anticipates business to be good in 2016 because they are in fancy yarn not cotton. They have developed products of various fibre types from basics to fancy and innovative yarn. "Only 50 percent of our yarns are shipped to China now; it used to be more; the rest goes to all over the world," he added. The only exhibitors from South Korea was Daewoo International Corp. "Sales for Daewoo Textile in 2014 and 2015 was at an acceptable level," said Ms Wang Li, manager of the textile department, but she thinks 2016 will see a downward trend. "China's stored cotton release will affect

the international market depending on the amount released as the world demand for cotton is not so strong these days. It will cause the price of cotton to go down", she said. The Daewoo Uzbekistan cotton yarn and fabric productions are shipped to China, Europe and Japan but no longer to Russia due to the trade embargo. The only exhibitor from Europe was Inter S.A. of Switzerland which processes high quality cotton yarns. Headquartered in Geneva Switzerland has affiliated production facilities in Turkey, China, Russia, Turkmenistan, Uzbekistan and Columbia. Sold through a network of global representatives ensures speedy delivery and quality service to the clients. They claim to be the only European company selling cotton yarn to China for both apparel and home textiles usage. They also export to other Asian countries including Vietnam, Indonesia, and Thailand. "Yarn Expo is a good barometer for the market situation and the Spring event is more about quality than quantity," said Sam Sinan, international sales director. "This year we hope to have higher business transaction".

[Vicky Sung]

Yarn Expo 2016 Spring held concurrent with four other textile and apparel shows this mid-March in Shanghai. In the recent past, the fair has continued to grow year on year and this time, with 15,000 sqm gross, recorded a 50 percent growth in size (10,000 sqm gross 2015 Spring) and 24 percent in exhibitors - 309 exhibitors from 11 countries and regions, of which 93 were from overseas & 216 domestic exhibitors (2015 Spring event had 250 from 15 economies, 148 domestic and 102 overseas).



INVISTA

Fitted carpet – it all starts with the fibre

The fibre factor goes a long way to determining the look, functionality and thus also the value and suitability of a fitted carpet. The fibre material is one of the defining factors with respect to durability, preserving the look, sustainability and cost effectiveness of a textile floor covering. Antron, which is under the wing of Invista, has been one of the leading synthetic fibre brands for textile floor coverings for more than 40 years. The launch of the crimped, endless fibre nylon in 1959 and the introduction of Antron Nylon the year after revolutionised the carpet industry.

Within the family of synthetic fibre polymers – including polyamide, polypropylene, polyes-

ter and polyacrylic – polyamide 6.6 (nylon 6.6) has proven its worth for particularly durable textile floor coverings. From a mechanical point of view, it is an extremely stable polymer. In comparison with nylon 6, which was invented at the same time (originally marketed under the name of Perlon), polyamide 6.6 has a considerably higher number of hydrogen bonds with optimally aligned molecular chains and therefore also a more tightly cross-linked and thus stronger molecular structure. Products made from Antron fibres all benefit from the properties of the nylon 6.6 polymer. The Antron portfolio comprises the following fibres: Antron Lumena spun-dyed polyamide 6.6: With stain-resist-



Anker fitted carpet in Lahnstein civic centre, designed with the Invista dirt and stain-protection technology

ant, colourfast and dirt-repellent properties, Antron Lumena is suitable for all public and commercial buildings.

Antron Legacy: Thanks to its special properties in terms of performance and dirt-resistance, these fibres keep their appearance over a long period of time.

Antron Brilliance: This white, dyeable fibre has a hollow fibre with dirt-concealing properties which are combined with a fibre technology that paves the way for brilliant colours, varying degrees of lustre and dyeing variations and thus also special carpet designs.

[www.invista.com]

HOME TEXTILES IN 2016

A bright outlook

Germany's home textiles industry currently feels upbeat about business in 2016 – a mood that is also buoyed by the general economic climate. The leading economic institutes believe that the German economy will continue to go from strength to strength, pegging growth at 1.9 percent. The sales market is

currently in a strong position, with unemployment reaching its lowest level since 1991. Private consumption is still developing well. Only the outlook for German exports is perhaps a little less rosy. The German Home Textiles Industry Association (Verband der Deutschen Heimtextil-Industrie e.V.) also forecasts growth: "German home textiles are synonymous with quality, innovation, functionality and diversity with respect to colours, materials and designs. Good service is given high priority in this industry." The main challenges the association sees for the sector lie in the problems experienced in some export markets and structural changes within the retail

trade, which is up against the rapid growth of online business. Home textiles had a slightly bumpy ride in 2015. In the first eight months of the year, the economy was dynamic and experienced growth. In the months of September, October and November the demand for German-made home textiles ebbed slightly – perhaps with the exception of bedding – such that growth could not be sustained. The recession in Russia and the associated drop in sales on the Russian market had a painful impact on companies in 2015. This is hardly surprising given that Russia was one of Germany's biggest export markets for fabrics and bedding. Other important con-

sumer markets, such as Switzerland and China, were also exposed to turbulence last year, negatively influencing the export activities of Germany's home textiles producers. Exports to the end of November suffered a 3.2 percent decline. Domestic trade for Germany's home textiles industry contracted only slightly by 1.1 percent. Textile floor coverings posted a marginal growth in the first eight months, which petered out, however, in the autumn. However, the majority of companies are still in good shape. Their product ranges are focused on innovation and functionality coupled with high standards in design.

[www.heimtex.de]

Photo: Apelt Stoffe

Product example:
Apelt fabrics.
Owner Ottmar Ihling
is also Chairman of
the German Home
Textiles Industry Association

Interview with Theo Ostendorf, Gerber Technology

The 4th revolution?

Working processes in companies will change enormously and the associated integral, seamless collaboration that will be required across all disciplines within the business will create huge demands on the technical capabilities of the company organisation and on its ability to change. A conversation with Theo Ostendorf.

textile network: Is Gerber Technology in demand from European clients where Industry 4.0 applications are concerned?

Theo Ostendorf: We consider it likely that there will be a gradual implementation of intelligent modular networks on a broad scale across the sewing industry, for example through improvements in transparency in the supply chain. And this is precisely what Gerber Technology is focusing on in our support for users of our solutions – from enabling virtual prototyping with Accu-Mark 3D, to integrating CAD with Accu-Mark generally, all the way to Yunique PLM and further, to networking with ERP systems. With the Gerberconnect remote maintenance system we have already created the foundations for systems to communicate with one another, for all the things that are included in the term IoT – the Internet of Things. In that sense we are ideally prepared to respond to the needs of our partners in the market.

textile network: 3D printing – in your view, how huge could the paradigm shift from generative production processes really be? Do you consider this technology to be competition for the overwhelmingly two-dimensional processes used in current automation solutions?

Theo Ostendorf: There's no way we see 3D printing in any sense as our nemesis, certainly not for any

Joining Textile Network in this discussion:



Photo: Kenn Busch

Theo Ostendorf took over the management of the EMEA region at Gerber Technology in May 2012, at the start of the new financial year, as Vice President and General Manager. A business economist, he had previously been responsible for Business Planning & Development in Europe with the company, which is one of the world's leading providers of CAD/CAM/PDM/PLM solutions. Having joined Gerber in 1991, he held key strategic roles in Controlling and in the reorganisation of the company's business in Europe and Australia.

textiles applications. It's the feel of the materials that is most important here. With the 3D module in Accu-Mark CAD, Gerber is facilitating virtual profiling, improvements to the fit of the garment, cost-effective model development and modification. Only time will tell to what extent 3D design will actually turn out to be the first step towards 3D fashion production. We are working with some technological opportunities. Take our industry conference ideation 2015 for instance. We brought the Israeli designer Danit Peleg on board for that, with her first collection that was completely developed and produced in three dimensions.

textile network: The words ecology and social responsibility are on everyone's lips. What contribution does Gerber Technology have to make there?

Theo Ostendorf: Our product Yunique PLM allows complete traceability – tracking and tracing of products and production processes as one of the essential preconditions for the recording, auditing and control of all relevant aspects, including the working environment from a social responsibility point of view, adherence to environmental guidelines at a local as well as a global level.

With Gerber Technology's CAD and CAM systems, we have been able to implement massive savings in energy and other resources in recent years. We've done this by improving efficiency in the use of materials, by means of work processes that don't require the use of plastic film to generate vacuums, through use of consumables such as knives and

Gerber's Paragon cutting system meets the varying demands of the sectors it serves, whilst paving the way for optimum communication between man and machine and process analysis

Photo: Gerber Technology



hones with a long service life. There's no question that sustainability is of great importance in our future product developments, too.

textile network: Geopolitical instability, conflicts, financial crises, worrying uncertainty among consumers – it will all inevitably have an influence on the course of business, especially in the EMEA region (Europe, Middle East and Africa). How is Gerber's European organisation set up to deal with all this?

Theo Ostendorf: The weakness in the euro is indeed a challenge for Gerber, and one that favours those of our competitors who are unaffected by it. But to a large extent we are keeping our prices absolutely stable. That's particularly true of Gerber Technology's service-related package solutions, which according to independent market studies are superior to the average. As for the rest of the problems you mention, they are business challenges that affect the global market. Meeting these intelligently and with a sense of proportion, overcoming them wherever possible, that can be a matter of survival. The thing now is to stay calm – for Gerber and in the area of capital products, what's important is to maintain the drive for innovation, even to accelerate it. It's an important issue in particular for our customers in high-tech fields such as automotive and aircraft manufacturing, for producers of increasingly intelligent technical textiles and materials, for the whole field of composites.

textile network: What do you see as the greatest challenges for Gerber Technology as automation specialists, both in 2016 and over the medium term?

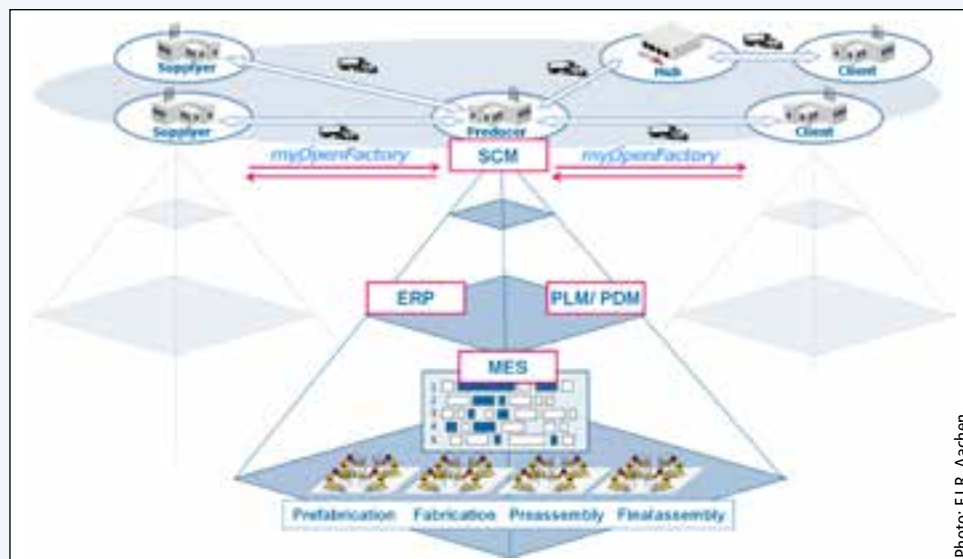


Photo: F.I.R. Aachen

The integration of PDM/PLM and ERP assumes a key role in the creation of modular networks within the supply chain

3D model development: could it be the first step towards 3D production?

Theo Ostendorf: At the beginning you introduced the subject of Industry 4.0. But looking at the sectors aimed at developing and producing end products for the consumer, such as the clothing and upholstery industries, I feel it is the exciting trend towards Textile & Garment 2.0 that is pointing the way. With the opportunities offered by the internet and with consumers

whose behaviour has been shaped by its use, a new culture is developing for the global textile sector, which, over the coming years, will continue to change relationships within the supply chain, between product development, sourcing and production, distribution and ultimately the final step to the consumer.

As an automation pioneer and market leader for almost 50 years now, Gerber Technology is ideally placed to provide continuing support with the right solutions to a worldwide clientèle of some 26,000 users in the textile sectors. That applies equally to our hardware products, where the Paragon range – to give just one example – is defining a new benchmark in terms of communication between man and machine and in terms of results-orientated availability of data in real time.

Another key challenge, for our company as well as others, undoubtedly lies in securing our future by fostering a qualified new generation of staff, for example through programmes for ambitious trainee sales staff, where there are attractive career opportunities in globally operating technology groups.

[www.gerbertechnology.com]



Photo: Gerber Technology

About Gerber Technology

Founded in 1968 as Gerber Garment Technology, the company operates as the world's leading provider of integrated solutions, supporting its clients in process automation and in efficient management of product design, product development and production. It has some 27,000 users across 130 countries in the fashion/clothing sector, in the furniture, automotive and aircraft industries, among technical textile and composite material producers and in the packaging industry. The company, which is owned by Vector Capital, is based in the USA, with its headquarters in Tolland, CT. In Europe, it has subsidiaries in Ismaning/Munich, Bièvres/Paris, Milan, Oporto, Zaventem/Brussels and Sant Vicenç dels Horts (Barcelona).

Mr Ostendorf, many thanks for talking to us.

The questions were posed by Iris Schlowski on behalf of textile network.



20 years Crestyle Kft

Functional sportswear and more "made in Hungary"

Crestyle AG was founded in Switzerland by Doris Forster and Armin Lustenberger in 1987, with the aim of producing fashionable skiwear for the German-speaking countries by means of contract processing. Considerable success in the early years was followed by several seasons of poor snow, which set the company back in a serious way. As a result, in 1996 the Board decided to buy a business in Hungary and to produce sportswear. It was an inspired decision, in many respects.

Ecology, sustainability, social responsibility

Today, Crestyle Kft is a modern textile company offering a diverse range of services, with an emphasis on ecology, sustainability and social responsibility. Partner companies providing raw materials are selected with care. Says Managing Director Armin Lustenberger: "All our suppliers have to be compatible with our own goals and have similarly ecological, sustainable and socially responsible production methods. We place a huge amount of emphasis on quality and sustainability and we prefer to work together with European and local partners to supply the various product elements. This helps both to secure jobs in the region and in Europe and to protect the environment."

Production is geared towards functional clothing, workwear



Photo: Crestyle

Crestyle customers are for example SportXX and Migros Switzerland

and leisurewear. The focus is on knitted fabrics, primarily from fast-growing raw materials such as bamboo and organic cotton but also viscose blends. "Bamboo does not require the use of pesticides or fertilisers," explains Lustenberger. "For that reason, it is both hypoallergenic and organic." The company's portfolio of services includes product development, procurement, production and packaging development, including logistics according to customer requirements. The entire supply chain is transparent to the customer and meets high quality criteria. "Our high level of commitment to quality and productivity ensures that we are able to hold our own in terms of price in the European market," he continues. "This is

evident in the results of our public tenders, for example."

Crestyle's consistent approach since 2012 has been to adapt its production methods according to ecological, sustainable and socially responsible criteria, and it continues to pursue this route. The production site now includes a new building as well as the fully refurbished old building, with a photovoltaic system, an environmentally friendly heat pump, an ultra-modern waste disposal (recycling) system and much more. The company's declared aims also include fair and stable working conditions for employees in friendly, generously lit spaces. "Having a workforce that has a clear sense of its role through well-defined and achievable targets, and that

sees itself as a part of the business, leads to commercial success" – of that Lustenberger is sure.

Crestyle Hungary employs a staff of 50 and produces some 500,000 items a year. The company is certified by Swiss Post and the Fair Wear Foundation, and holds ISO certificates 9001-2015 (quality management) and 14001-2015 (environmental management), audited by Switzerland and Hungary. "We are CO₂ neutral and are supporting a reforestation project in Zimbabwe. We are GOTS certified and are in the process of gaining Step certification from Oeko-Tex," according to the MD. "Unlike most companies in Romania and Bulgaria, we are able to manage all or any of the production steps that the customer requires. From pattern development all the way to offering packaging proposals, procuring fabrics and accessories, packaging and sorting the goods, organising transportation or providing the entire package, everything is possible." Moreover, customers can buy direct from Hungary, which is quite unusual for East European businesses. The only exception is for Swiss customers. "Here we have a very heavy concentration of customers so we work with Crestyle AG so we can stay even closer to our customers," concludes Lustenberger.

[www.crestyle.ch]

[www.crestylegmbh.com/hu]

Fashion week

Conceptual/ functional

Can conceptual fashion also be functional? Does the clothing of today's modern nomad have to be associated with worn-out ethnic concepts? Both of these questions can be answered with a resounding No. At Berlin Fashion Week in January 2016, this was illustrated only too well by the collections of designer Vladimir Karaleev and Nobieh Talai.

The worldly, free-spirited nomad

Esmod-graduate Nobieh Talai can be forgiven for exploring her roots and her Persian provenance in her work. The incredibly modern interpretations of the silhouettes featured in her label Nobi Talai translate the traditional elements of Middle Eastern

culture into a worldly, puristic aesthetic. Elements of nomadic clothing, such as blankets or straight cotton dresses, are interpreted as elegant capes and tunics. She shies away from patterns of any kind, preferring to focus on the finest of plain materials such as silk, cashmere, wool crepe, calf/lambskin and nappa as well as details such as piping from Japanese plonge leather. Signature elements of the label include wrap and tie techniques which replace the cuffs on blouses and the fasteners on long tunics, skirts and trousers. The flowing silhouettes are simple yet sophisticated, the loose shapes varied using belts. Just into her third collection entitled NT.02, Nobi Talai has shown such confidence in her styling that she has



Collection
Nobi Talai



Collection
Nobi Talai

been accepted into the Berliner Salon by Christiane Arp, head of Vogue, and the Berlin Fashion Council's talent programme.

Functional concept art in fashion

Since establishing his label in 2010, Vladimir Karaleev, the Bulgarian born graduate of the HTW Berlin, has been fascinated by constructive aspects of clothing

and how their laws can be abrogated. He questions accepted constructions and develops his own dress sculptures that are reminiscent of futuristic assemblages, yet remain absolutely wearable. Open selvages and seams, the seemingly coincidental positioning of elements and conscious imperfections are among the other aspects that characterise this fashion. The way the designer presents his collection is just as unconventional, setting his dress sculptures in imaginary landscapes of felt cliff formations. Liquefied, amorphous elements break through the clear forms of the garments, whilst collars and lapels deconstructively appear in unusual, yet seemingly natural places. Knits, cord, tartan checks, soft woollen fabrics and transparent pleated layers are dipped in soothing colours such as black, navy, brown, evergreen, cream, silver grey and mauve. Ochre and petrol are used to create accents in this truly inspiring collection that focuses fully on the individuality of the wearer.

[www.nobitalai.com]

[www.vladimirkaraleev.com]

[Neli Mitewa]



Photo: Vasil Germano

Collection -
Vladimir Karaleev



Photo: Vasil Germano

Collection -
Vladimir Karaleev

Lectra

PLM is on trend

In contrast to the traditional fashion houses that are still trying to retain their hold on the market with just two.

The traditionalists rely on old-fashioned approaches to product development: designers, for example, work with hand-drawn sketches and the merchandising teams manage their product data on pages and pages of Excel lists. Such working methods are too slow for the tempo required in today's fashion industry.

Inefficient organisation, or an inefficient structure, can often obstruct the company's hidden qualities, making communication across departments more difficult, restricting transparency and having a negative effect on decision-making. In short, the company is hamstrung.

Fashion houses that work in this way struggle to keep up with the demanding expectations of the online consumer and find themselves limping along behind the requirement for ever shorter collection cycles. More than ever, fashion businesses need to start working out a concept that enables them to make an enduring change to their working methods, and helps them to keep pace.

Branded goods manufacturers who have traditionally handled their sales through retailers, for example, have two good reasons for developing their own sales operation: they keep a greater proportion of the selling price for themselves, and they retain complete control over the pre-

sentation, distribution and retail price of their products. Moreover, it gives them control over the reputation and exclusivity of the brand – a major issue particularly in the luxury sector.

As a result of heightened competition in the branded and retail trade, the fashion companies have relocated as many of their activities as possible, for instance to China. As wages start to rise there too, more and more businesses are taking another look at their European neighbours and a proportion of the production contracts are returning to Eastern Europe. One way or another, outsourcing the design development, pattern generation or production processes conceals a number of specific challenges. Making sustainable changes to the business model – the backbone of the enterprise – means re-evaluating the very principles of the operation. When companies outsource areas of their business, they cannot afford to skimp on technology for planning a collection: structure is

the name of the game where successful collection planning is concerned. With a Product Lifecycle Management (PLM) solution, companies can supervise the product throughout its entire life cycle. Having said that, PLM solutions that have been developed for the automotive sector or that originate in other markets tend not to be suitable for the fashion industry, because work cycles for textiles have their own particular characteristics. These include the bottlenecks that result from fast fashion and the need to manage a large number of very different products simultaneously. A fundamental issue is the specific challenge relating to the management of different sizes and colours.

A new way with "made easy"

For a fashion business, as for those in other industries, the successful introduction of PLM means working through a cycle of four project phases: scoping (setting project goals and content), analysis and design,

Companies such as H&M and Zara can now take a collection from drawing-board to the clothes rail in just two or three weeks. As fast fashion companies, they are offering up to 18 collections a year, in contrast to the traditional fashion houses that are still trying to retain their hold on the market with just two.



Photo: Lectra

Robin Lemstra is Professional Service Director at Lectra Deutschland and provides implementation support to fashion businesses in the field of product and business development, with a focus on PLM

implementation, and maintenance and support.

The team works together to review the processes, from planning through prototyping to production, not to mention matters such as purchasing and supply sources. There is widespread agreement that where the purchase of fabrics is concerned, the lowest price does not always represent the best option. Many companies are reducing the number of suppliers they use in return for consistent quality delivered at the right time. More and more European businesses are using suppliers in nearby countries for clothes that need to be supplied rapidly and that demand higher levels of quality control. European companies working with fabric suppliers in Tunisia or Portugal, for example, get shorter delivery times. And if they then manage their development and production processes using PLM, fashion businesses can deliver the new fashions even more quickly.



Photo: Lectra

Product Lifecycle Management: workshop by Lectra

[www.lectra.com]

Once unpacked, folded and sorted, the articles are checked to ensure that the dimensions and seams are correct

textile services

Need a perfect finish?

Fashion brands promise quality and symbolise lifestyle. As always, first impressions are vital here – be it at the point of sale or for customers at home. A key factor in perfect presentation is adding the finishing touches shortly before the products are delivered – and there is a growing tendency among manufacturers to enlist the services of professional textile refinishers such as Pforzheim-based Packservice. These specialists verify the quality, size and correct labelling, ironing the goods and eliminating any minor defects.

When it comes to shopping, products must be of high quality and competitively priced. According to a recent "Outfit" study by German news magazine Spiegel in 2015, the majority of German consumers (71%) are willing to opt for the same brand again if they are satisfied with its quality first time around. Even though most German consumers tend to look for bargains (73%), they are still essentially willing to pay a relatively high amount for clothing and shoes: the average per capita consumption in 2014 was around €900, more than 200 above the European average.

This being the case, it is all the more surprising to note that shoppers generally make spontaneous purchase decisions. Neuromarketing researchers have determined that people shopping at the point of sale know in less than one second whether they like an article. This means that

brands have very little time to win over customers with first impressions and to trigger a purchase impulse. Following the purchase, the high quality of the product ultimately provides a positive purchase confirmation. Appearance and quality are the key criteria for brands and their reputation. In the global textile market in which the major mass producers are active, long process chains make it increasingly difficult to provide sufficient capacity for reliable end-to-end quality assurance. This has led to an increasing tendency to rely on the professionals to ensure a perfect finish – one of these textile refinishers is Packservice, based in Pforzheim, Germany.

Quality assurance with high standards

First of all, the textiles are removed from their cardboard packaging and sleeves and arranged according to

colour and size – only in this way is it possible to ensure a consistently high level of quality. Following this, they are examined using the Accepted Quality Level procedure and, depending on customer specifications, up to 100 percent of materials can be inspected.

In the visual inspection, Packservice employees examine colours, seams, buttons and finishing. To ensure an ideal fit, the dimensions of the clothing are then checked using a tape measure. Legal specifications and other formalities are also verified – for example, is the information on the sewn-in labels available in the required languages? Once they have been determined to be in impeccable quality, the goods are hung up with labels or hang tags added to them before being sent back to the customer or directly to retail outlets. Products with defects are photographed for the purpose of docu- ►

► mentation and reported to the manufacturer. At the customer's request, Packservice also rectifies minor defects in the products afterwards.

The all-important finishing touches

Another service offered by Packservice is putting the finishing touches to its customers' products. For instance, the various textile materials are ironed carefully so that the products look their best at the point of sale. The techniques used range from quick steaming to extensive ironing using specialised equipment up to and including industrial iron-

Full steam ahead: industrial ironing machines provide the clothing with a perfect finish



Photo: Packservice

ning machines. Specialised equipment is also used to remove stains and rectify minor defects – small-scale sewing work is also performed if necessary.

In order to be able to guarantee maximum quality and professionalism for its services, Packservice employs highly trained specialists. Around 50 renowned fashion stores and mail-order companies put their trust in the longstanding expertise of the

Pforzheim-based refinishing company. In the B2B business, the Packservice Group is the leading specialist for co-packing services within the supply chain. Its customers include high-profile producers of brand-name food, pet food and cosmetics products as well as producers from the pharmaceutical, healthcare and manufacturing industry.

[www.packservice.de]

GONSO 90TH ANNIVERSARY

Innovative, yet traditional

This year, the first producer of synthetic cycling shorts in Germany celebrates its 90th anniversary with a special collection, as well as a number of campaigns and events. Today, sports professionals and performance-minded amateurs place their trust in the products from these innovation specialists, as do casual cyclists and those who enjoy active cycling and bike trekking. The Gonso brand is famous for having clothing to suit every application and every size: as a specialist in both short and long sizes, Gonso is in a position to meet the needs of every cycling fanatic.

What is now the best-known German bikewear brand was founded in 1926 as a sewing workshop in the South German hills of the Swabian Alb. The company's founder, Johannes Gonser Senior, started out producing cotton underwear. His grandson, Hans Gonser, took over the business after the war and by the 1960s was already pioneering experiments with sports textiles. Af-



Photo: Gonso



Gonso has over 90 years' experience in the textile industry, including close to 35 years in the field of bike clothing

ter its first big success in the field of sports clothing, Gonso concentrated from the 1980s onwards on what is today its core business, cycling, and was the first company to produce functional clothing using Dunova, the high performance yarn developed by Bayer,

as well as climate-neutralising, high elasticity jerseys

from the latest nylon fibres. After that, it was not long before the first racers went trophy-hunting with that large G on their jerseys.

The brand is undoubtedly best known for the invention of cycling shorts with a built-in seat cushion, which nowadays takes the form of the integral seat pad in every pair. In

the broader history of the company, countless professional riders and teams – among them Team Gerolsteiner and both the German and Swiss national cycling teams – have put their trust in the tradition-rich brand. And in the more recent past, the company has come forward again and again with unique developments, including the Carbon 2.0 seat pad, for example, and has won the praise of many experts and committees. In the summer, to mark the company's anniversary, Gonso will be taking its customers on a journey back through time to its very roots. It is bringing out a limited edition range, for which product developers and designers have rummaged through the models and styles of those early cycling lines and have combined them with the technology, innovations and convenience of today. The result is a range of seven unique products for road, urban and mountain-biking, which will be available as limited editions from June in selected dealerships.

[www.gonso.de]

Futurology

Digitalised business models in 2030

Given the premise that it is better to question one's own supply chain before an industry outsider does it for you, strategy expert Thomas Strobel has analysed some of the pilot applications for tomorrow's digital world that are currently emerging for SMEs and the textile industry.

His findings include concepts with a potentially huge impact, such as networked, communicating machines, products fitted with integrated functions and sensors, or big data value-added models – all strategies aimed at establishing new digital business models.

With a view to equipping companies for a successful future, the futurologist has looked at several design levels that will inevitably lead to changes in business models, work processes and also human resources in the next 15 years. New 4.0 business models are within reach, provided companies innovatively adapt their processes, procedures and data

streams. Sewing machine maker Dürkopp Adler is a good example of how this can be done. At its facility in Bielefeld, Germany, sewing machines are currently learning to communicate with each other and are revolutionising the field of production control through decentralised networking and data exchange. Using a machine-to-machine solution (M2M), the company's service experts sort through a multitude of important information about working processes and sewing machine statuses at different locations around the world, thus monitoring machine operation. The example of Schmitz Cargobull, a manufacturer of articulated trailers, illustrates how companies that link their logistics processes with the supply chain networks of their part-

Textile Research 1

The Futuretex consortium, funded by the German Federal Ministry of Education and Research, is pursuing an ambitious goal. Almost 180 interdisciplinary partners are seizing the opportunities offered by the fourth industrial revolution in an attempt to create the "most modern textile supply chain in Europe" by the end of the decade. One requirement for digitalised and networked production in the textile factory of the future, which reflects the trend towards greater flexibility and individualisation, is the machine-readability of textile substrates. Given that wireless communication via RFID tools along the textile chain is impossible due to the specifics of the materials, Futuretex is currently working on alternative solutions for the identification and traceability of materials in the production cycle. (more on p.18)

ners and customers can generate additional benefits for themselves and others. Accordingly, the trailer specialist equips its trailers with a telematics system, giving the dispatchers in the shipping companies access to real-time information (current location, speed of travel, load weight, estimated time of arrival etc.). Equipping textile products with sensors or telematics applications in this way could create enormous benefits for customers. Additional information would enable, for example, ski suits to warn skiers of avalanche risks, whilst diabetics could receive a signal from their vests telling them that their ►





Photo: VDMA

Digitalisation 4.0: a multi-faceted challenge even for the textile industry

► blood sugar levels are rising to dangerous levels. Alternatively, protective clothing for outdoor athletes could warn them of hazardous changes in the weather. It could even be possible to design hospital robes with integrated germ-alarm functions and much more. In future, manufacturers will be able to fine-tune their products based on the digital information the products send back to the company during use – this will be vital for continuous quality improvements and the individualisation of products. Assuming in future that the safety of data and information is deemed as important as fire protection, a manufacturer of heavy-duty composite components fitted with sensors may be able to operate in the following way: Given that the load and endurance history of a part can be recorded in-house, the data could be used to predict the remaining service life of each of the relevant components. This is a path

Textile Research 2

Prof. Dr.-Ing. Yves-Simon Gloy, the Aachen-based Industry 4.0 textile researcher at the Institute of Textile Technology (ITA), is supporting Adidas in its objective to create its first Speed-Factory production lines for textile sports shoes. Working at the interface between the data stream and textile technology, Gloy's project group, which specialises in textile machinery and production technology, is in the process of solving some of the following questions: How does the relevant data arrive in the machine so that it knows what to produce? How is it possible to produce minimum lot sizes of 1, and how can the associated production logistics, individualisation and efficiency be achieved using autonomous sensors?

that researchers at the Institute for Textile Machinery and High-Performance Material Technology (ITM) at the Technical University of Dresden are venturing down in the permanent, sensor-based monitoring of rotor blades on wind turbines. If this model proves feasible in practice, the relatively high levels of maintenance currently required could be significantly reduced. The permanent monitoring of the relatively inaccessible fibre composite blades exploits the so-called piezo-resistive effect. The fibre reinforcement material changes its electrical resistance when exposed to tensile, torsional or bending stresses. Deformations that could impede its functions or even fissures in the material caused by fatigue or wear and tear could be recorded and located by the integrated sensors, thus avoiding complex maintenance procedures. (The approach taken by an IGF project was awarded the AIF's "Otto von Guericke Prize" in 2015). Thomas Strobel believes that the sale of purely digital product data will become an important market of the future and that, within this model, actual production will be outsourced to regional or local contractors. Accordingly, customers will use, let us say, a clothing supplier's configurator to create their own suits based on their body measurements and personal preferences – including special features such as integ-



Photo: VTI/W. Schmidt

Futuretex is heading towards the textile factory of the future – social aspects of the changing world of work (Industry 4.0) play an important role

Intelligent glove: The pressure-sensitive glove fitted with 24 textile sensors, developed by Chemnitz-based ITP GmbH, is designed to protect the wearer from overstraining even when exposed to strenuous tasks



Photo: Smarttix-Netzwerk

Textile Research 3

Prof. Dr. Meike Tilebein, Head of Management Research at the DITF, Europe's biggest textile research centre in Denkerdorf, has been working on "the profitable production of customised products" for several years. Given that the production of apparel, and even more so technical textiles, is still characterised by a large element of manual labour, the to-do list includes complex simulation tasks as well as data management in the production process via eTextiles. The motto here: every jacket should know which production processes it has been through.

rated sensors, solar cells, temperature management. Based on these details, the apparel supplier will be able to calculate a data model for the materials, pattern, applications and optional extras on a 3D printer. This set of data will be sent to an authorised contract producer located in close proximity to the customer and thus produced and delivered within a short time frame.

In an age of increasingly networked production and customer relations, there will be an ever rising number of products that, in keeping with crowdsourcing models (outsourcing of partial tasks), actively involve customers ("Open Innovation") in the process of improving products. Customers having the soles of their feet measured in a sports shop by an insole fitted with sensors will automatically provide input for completely new business models. Moticon and OpenGo Therapist e.g. have both developed sensor soles, whose measurements on weight distribution and the movement parameters of patients and athletes shed light on abnormal biomechanical stresses that could eventually lead to injury unless addressed.

[Hans-Werner Oertel]



Cotton transportation in Tanzania



Cotton harvest in Tanzania



Cotton field in Brazil

33rd International Cotton Conference

Cotton – a raw material in high demand

More than 400 participants from 40 countries came along to the 33rd International Cotton Conference organised jointly by the Bremen Cotton Exchange and the Fibre Institute Bremen to discuss the future of the natural raw material cotton. Bearing the motto "Connecting High Tech and Nature", the conference, which took place from 16 to 18 March at the historic Town Hall in Bremen, offered a broad insight into the latest trends in the marketing and further processing of cotton. Ernst Grimmel, President of the Bremen Cotton Exchange, opened the Conference with a call to action: "For years, the market share of cotton has been in decline compared to synthetic fibres such as polyester. Given the fact that polyester prices have recently fallen more than those of cotton, this has put considerable strain on the competitiveness of cotton. This must be actively countered by developing innovative cotton products. We need to improve the acceptance of the natural

fibre and emphasise the value and benefits of cotton."

Tyler Cole of Olah Inc., one of the leading international sourcing companies for jeanswear and casual clothing, pointed to the growing consumer interest in sustainable production methods within the textile supply chain. In the United States, this applies especially to the premium market. Those companies who are increasingly able to meet these demands, will be well prepared with regard to the future. As Bruna Angel from PCI Fibres showed, the industry can only limit the slide in market share by increasing the value of completely biologically degradable cotton. This could be achieved by complementing the natural benefits of cotton (good absorption, kind to the skin) with additional useful properties by using technical finishing processes.

Convinced by green biotechnology

The new technologies in the context of cotton seed breeding include methods such as

Smart Breeding or CRISPR technology. If the DNA codes of selected plants are known, then a weakening or strengthening of genes using the latest technology can be carried out relatively inexpensively. This applies, for example, to insect and weed resistance, improving the nutritional value or plant health. Cotton remains a natural product and is characterised by highly fluctuating crop yields in some regions of the world. Whereas Australia and Brazil work with the world's highest cotton yields of more than 2,000 to 1,700 kg/ha, African countries, and also India, are still far behind with 200 to 300 kg/ha. Cotton yields could be increased by selecting seeds that correspond better to local conditions (soil fertility, improved water management, protection against plant diseases). A further highlight of the Conference was the panel discussion on the subject of responsible cotton farming. The panel debated a wide range of questions, such as: What does crop

protection mean? Is the environment taken into consideration? What is the significance of research in this field?

Experts such as Allan Williams, (Cotton Research & Development Corporation, Australia), Menahem Yogev (The Israel Cotton Production & Marketing Board Ltd., Israel), Francesca Mancini (Food and Agriculture Organisation of the United Nations (FAO), Italy), Sebastião Barbossa (Embrapa, Brazil), Martin Märkl, (Bayer CropScience, Germany), Christoph Kaut (Aid by Trade Foundation, Germany) and Damien Sanfillippo (BCI, Switzerland) spoke of the opportunities and risks in the context of sustainable cotton growing. All the participants reported partially significant reductions in the use of pesticides. This was achieved primarily by training the people working in cotton growing to apply agricultural chemicals properly.

The 34th International Cotton Conference is scheduled to take place in Bremen in 2018. The exact dates are still to be arranged.

[www.baumwollboerse.de]



President Ernst Grimmel



Session 8 Allan Williams



IVGT

IVGT

Smart specialisation

Following the resolution to pursue the "Europe 2020" growth initiative, the European Council launched several development and funding programmes back in 2010. All 27 European regions were involved in preparing "Regional Research and Innovation Strategies for Smart Specialisation" (RIS3). In the period from 2014 to 2020, the European Structural and Investment Fund (ESIF) is setting aside over 454bn Euro for companies to invest in product development, new markets and sustainable job creation.

In this context, an initiative tailored specifically to the textile industry was presented at the annual meeting of the European Textile Platform (ETP). This scheme is designed to create a stronger network between regional political decision-makers and bodies, regional textile industries and the European network of textile manufacturers, textile research institutes and textile processing industries. In Germany, the states of Baden-Württemberg and Saxony are keen to take part in the "RegioTex" initiative. Other regions involved in textiles have already expressed a keen interest. In 2015, the EU's textile and apparel producers posted around 169bn Euro in sales, corresponding to a 2.2 percent climb on the

IVGT Events in 2016

9 June	Personal Protective Equipment – Working Group in Frankfurt
12 September	Textile Grinding & Polishing Discs – Sectional Meeting in Frankfurt
6+7 October	Tape & Braiding – Sectional Meeting in Lustenau/Dornbirn
9+10 November	IVGT Members' Meeting

year before. In the same year, the industry employed around 1.69 million workers, equating to a 0.4 percent rise. The number of small and medium-sized companies has inched up by roughly 2 percent to more than 175,000. Private-sector investment volumes remained high at 4.3bn Euro. In 2015, Germany's textile industry invested in new machinery and energy efficiency in a move to strengthen its market leadership particularly in the field of technical textiles.

[Source: Euratex.eu 2016]

VDMA

Hybrid Lightweight Technologies

Lightweight construction is absolutely indispensable when operating in areas that need to conserve resources and, as a construction philosophy, has many supporters – and this also applies to the Verband Deutscher Maschinen- und Anlagenbau, VDMA (German Engineering Federation).

This is why this well-known professional organisation set

up a new Working Group specialising in this field. This new platform will be known as Hybrid Lightweight Technologies and will replace the existing Forum Composite Technology, with its 175 VDMA member companies, one of which was Karl Mayer Technische Textilien GmbH. The Managing Director of this company, Jochen Schmidt was present at the in-

augural event, and was elected as a member of the board of this new group.

Karl Mayer Technische Textilien GmbH manufactures high-performance machines for the composites industry and is extremely experienced in this field. Its biaxial and multiaxial machines can process all the latest technical yarns, such as glass- and carbon-fibres rovings, to produce reinforcing textiles for classic composites, which are being used successfully in a variety of applications. "We have already made a name for ourselves as a reliable and expert partner in the automotive and wind sectors especially. With our technical know-how and experience, we



Jochen Schmidt, Managing Director
Karl Mayer

can make a useful contribution to the Working Group Hybrid Lightweight Technologies," says Jochen Schmidt.

The company's machines for producing multiaxial and biaxial textiles also offer a great deal of potential for designing advanced material composites and thus for opening up new applications.

[www.karlmayer.com]
[www.vdma.org]



textile
network

New website goes online in mid-May!

www.textile-network.com



IFWS SWISS NATIONAL SECTION

General Meeting and Conference on 27 May 2016

Swisslastic AG, based in Wald (CH), one of the most modern textile companies in Switzerland, is opening its doors to host this year's meeting staged by the IFWS Swiss National Section.

The participants will gain an insight into the three main pillars of the host's product range. These are "Swiss-made" covered stretch yarns, compression hosiery and pressure measuring devices. The company develops and produces products in all three fields in compliance with customer specifications.

The participants can look forward to an interesting tour of the company. After the tour, it will be possible to gain a more profound understanding of the firm during a discussion round. The conference will begin with the Annual General Meeting followed by an interesting programme of presentations.

As has become tradition, attendees will have the opportunity in the evening to talk among experts and exchange ideas. More information is available by email from:

[ifws-schweiz@gmx.ch]

[1] Monforts opens its doors – a glimpse of its Technical Centre

[2] The AGM and Conference of the Swiss National Section is hosted by Swisslastic AG in Wald (CH)

[3] This year's 48th International Congress is taking place in Mönchengladbach at the Niederrhein University of Applied Sciences

IFWS

IFWS / IFKT turns 60

Marking the 60th anniversary of the IFWS/IFKT, this year's 48th International Congress, which will run in Mönchengladbach from 8 to 11 June 2016, will host a far-reaching programme in the conference languages German and English. In the evening of 8 June, the IFWS/IFKT Central Board will convene for a meeting.

This will be followed on 9 June by plenary sessions focusing on forward-looking issues facing the textile industry, innovations in the knitting industry and sector-related textiles and how they are used (e.g. personal protective equipment, technical textiles etc.). The congress will take place in conjunction with the 3rd MG Open Spaces, organised by the Research Institute for Textiles and Clothing at the Niederrhein University of Applied Sciences, enabling the attendees to pre-book topics from a variety of parallel events. The second day will close with the IFWS/IFKT's Annual General Meeting, consultations with experts and the 'Come Together'

event presented by MG Open Spaces.

On 10 June, the interdisciplinary exchange of ideas will continue in the 'Open Spaces' open conference format. Following opening speeches on industry topics, the participants can exchange ideas and suggest and shape points of discussion at various workshops covering the following areas: Industry 4.0, Augmented and Virtual Reality, Future Tex, Energy Management, CSR, 3D Printing, E-Learning and Future Value and Skills. Likewise on 10 June, Monforts Advanced Technology Center at A. Monforts Textilmaschinen will host an English-language workshop on 'Knitting Concepts'. Participants can also view the IFWS/IFKT poster exhibition in the rooms accommodating MG Open Spaces. A concluding discussion round featuring all the participants at the workshops will round off the MG Open Spaces Programme.

The Congress Evening Event on 10 June 2016 can be booked

separately. The events draw to a close on 11 June with the VDTF Members' Meeting in Cologne at the NH Hotel Mediapark. The Society of German Textile Finishing Experts (Verein Deutscher Textilveredlungsfachleute e. V.) is offering morning and afternoon plenary sessions and presentations in German, followed by its Members' Meeting. An evening programme can be booked in Cologne to bring the event to a relaxing close. Registrations (by 10 May 2016) and enquiries should be sent to:

[www.knittingfed.com]

[www.open-spaces.de]

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BOOK TIP PRATO

The stories of Prato

Pierfrancesco Benucci was born near Florence. He is a marketing expert with a profound knowledge of Prato and the international markets it deals with. In 2014, he wrote and published a book entitled "The Stories of Prato". The 335 pages are filled with imaginary interviews with and characteristic stories about the mediaeval merchant Francesco di Marco Datini which describe the history of this ancient city where centuries ago an important part of Italy's textile industry was born. Nowadays, Prato is dominated by Chinese people working in clothes factories in poor conditions and for very little pay. Benucci has worked incessantly to promote Prato's image

throughout the world through his company – 360gradi srl. He does not consider himself a writer, but rather an "attentive chronicler" in search of the facts and events we tend too often to forget but that were important in shaping Prato's economic history. He describes Prato and the history of its most important families in the textile industry, including, for example, the Pugi factory and the Forti family. The end of the sixties saw the first economic mission of the Unione Industriale Pratese to the United States. Chenille was an idea born in Prato, Lanificio Chiostri Guido Mario became successful in Prato. The book also outlines how jeans fabric originated, leading to the appearance

of the first Italian jeans brand. The history of this city was shaped by many families, many fabrics and many important products created for the world of fashion and made in Italy. The book is a collection of articles, stories and imaginary interviews with important people in this fashion district of Prato which today is increasingly being dominated by Chinese people and their illegal production sites in cellars, garages and rooms with neither windows nor sanitary facilities. The book, which describes the

city of Prato as one that has been a great success, is proud of its products and heritage, and is well-known all over the world, is a wake-up call for politicians and fashion economists in Italy, Europe and all over the world, highlighting how the Chinese Mafia is killing the fashion district and the innovation of new products in and around Prato.

Francesco Benucci,
The stories of Prato,
ISBN 978-88-86855-80-8,
25,00 Euro



Photo: Fotolia

CHINA

A New Event to Emerge in Xiamen

A special press conference by CCPIT-Text announced the development and introduction of a new event this year. It is not

so much an exhibition as a meeting of minds, so to speak, or a match-making of buyers and suppliers within the inter-

national textile and apparel industry. This event will take place at the Xiamen International Conference Centre Hotel in Xiamen City in Fujian Province from 22 to 23 November. The B2B area will be complemented with a Promo Show. This is ideal for bigger companies with several brands. Educational institutes, research groups and training centres may also find this platform a more suitable way of presenting their capabilities and services. Foreign companies struggling to find the right partnerships or collaborations and looking for opportunities to gain a share of China's growing market, need a different platform than that offered

by exhibitions. China on the other hand also wish to build a platform that can bring global resources of the garment and fashion industry to link them to potential Chinese clients. Hence they call the event "LINKINGplus".

Xiamen was one of the first four Special Economic Zones to open up to the outside world in the 1980s. It also has great historical significance as one of China's key trading posts in the Ching Dynasty. Today, it is home to a large number of fashion brands and manufacturers, as many as 10,000 according to the local government.

Read more on

[\[www.textile-network.com\]](http://www.textile-network.com)



Photo: Vicky Sung

A special press conference by CCPIT-Text announced the development & introduction of a new event this year

BORDER GURU / ALIBABA

Hermes Subsidiary becomes Logistics Partner

Border Guru, a wholly-owned subsidiary of the Hermes Group, has become the official contractual partner of China's Alibaba Group.

With a gross merchandise value (GMV) of 452 bn USD and access to over 280 million customers, the Alibaba Group is currently the world's leading online retailer. Through its Tmall Global shopping platform, Alibaba offers its Chinese customers popular international brands. On behalf of Cainiao, the logistics provider of the Chinese trading giant, Border Guru GmbH is managing the whole logistics cross-border shipping process for European clients looking to sell on the booming Chinese market.

Through its Tmall Global marketplace – explicitly targeting the private consumer – original goods from Europe, the US and elsewhere are sold to Chinese customers. At present, about 5,400 international brands from a total of 53 countries are being offered on Tmall Global. "We are really proud to have become Alibaba's contractual partner – the number one in China and consequently in global web sales. And we truly appreciate the trust placed in us," says Martin Kreiter, re-

sponsible for ecommerce Business Development at Hermes and Managing Director of Border Guru GmbH. Items imported from Germany include particularly pharmaceutical products, nutritional supplements, baby products and foods, as well as organically produced children's clothing and luxury items. "The label 'Made in Germany' is still a real sign of quality for many international customers," says Kreiter.

As part of the collaboration with Alibaba's affiliated logistics platform, Cainiao, Border Guru provides the IT-assisted management of the whole logistics chain between Europe and China – from the pick up at the retailer's warehouse in Europe through to the transfer to the "last mile" in China. James Zhao, Director of Global Import at Cainiao: "We are delighted to have secured the services of the experienced logistics specialist Hermes with its proven track record in retailing. In conjunction with its strong e-commerce base, BorderGuru for us is a logical partner we can trust with our continued expansion in Europe."

The international transport, comprising all customs clearance formalities will be processed through Hermes. Border Guru can rely on the growing logistics network of the Hermes Group. In China, Cainiao is then responsible for the import clearance and distribution to the Chinese end consumer. Tmall Global is still by far the easiest

On the Tmall Global marketplace - explicitly targeting the private consumer – original goods from Europe, the US and elsewhere are sold to Chinese customers



Photos: Hermes

With a gross merchandise value (GMV) of 452 bn USD and access to over 280 million customers, the Alibaba Group is currently the world's leading online retailer

way for many Chinese customers to buy brand products from Europe at favourable prices. On Singles' Day in November, the biggest shopping event in the Chinese calendar, the Alibaba Group achieved a turnover of over USD 14.3 bn on one single day. Retailers from a variety of sectors are already using Border Guru services and operate on Tmall. Alongside this collaboration with Cainiao, Border Guru offers further opportunities to tap the Chinese market.

Retailers looking to expand globally can also sell to Chinese customers directly from their local webshop and have them delivered through Border Guru.

"The partnership between Alibaba, Cainiao and BorderGuru is now showing that we are on the right path with our e-commerce services and that we are helping satisfy growing demand," underscores Martin Kreiter.

[www.hermesworld.com]



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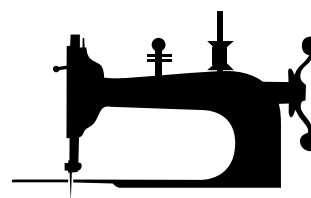
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Renewable and 100 per-cent bio-degradable – cotton has unique properties and cotton farming is an important economic factor in many places around the world.

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around the world.

Photo: Cotton USA

End-to-end engineering from 3D design to production: The Print & Cut project represents a milestone for the fashion industry as it strides towards Industry 4.0.

A woman with blonde hair is sitting in a meditative pose (Padmasana) on a dark, textured surface. She is wearing a light blue long-sleeved top, a grey cardigan, and a grey scarf. Her hands are pressed together in a prayer position (Anjali Mudra) at her chest level. Her eyes are closed, and she has a serene expression. The background is a dark, textured wall.



Industry 4.0.

Photo: Human Solutions



The footwear and apparel from the „Sport Infinity“-collection can be infinitely re-used

COMMENT

Is sustainability a moneymaker?

A comment by Philipp P. Precht, Senior Manager and sports, fashion and lifestyle Expert at Dr. Wieselhuber & Partner GmbH.

With the market launch of a completely recyclable collection, Adidas is shaking up the industry again. But what is this concept all about? The footwear and apparel from the „Sport Infinity“ collection can, as the name suggests, be infi-

nitely re-used, as each product can be broken down into their original constituent parts and used again in new products. Conversely, product components from completely different industrial sectors, e.g. aircraft construction, can be included in the manufacturing process of sporting goods.

Incorporating environmental concepts in the production of sporting goods is nothing new. Since their early days, several outdoor suppliers have been extremely successful in this area. Nevertheless: Adidas is the first full-range supplier to actively focus on "sustainable production" – this is bound to resonate in the marketplace. After all, environmental protection and the responsible use of resources have long since become a basic social requirement. Morality and values have become hip again. The expectations of consumers vis-à-vis 'their' manufacturers are correspondingly high.



This latest push by Adidas is not only long overdue but also simply the right thing to do. Manufacturers – irrespective of their size – will only be taken seriously in the realm of environmental protection if they are prepared to go that extra mile by changing their production processes, redesigning their product lines and practising consistent marketing. At a time when products are becoming increasingly similar

in their design, materials and applications and suppliers are becoming interchangeable in the eyes of the consumer, environmental protection is a great way to gain the competitive edge. But caution is required: Companies that fail to deliver on their sustainability promises or even deliberately mislead the consumer, will ultimately pay the price. The VW debacle demonstrates only too well how high that price can be ...



Philipp P. Precht



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